EMKARATE RL 32HB 121
EMKARATE RL 32S 125
EMKARATE RL 46H 127
EMKARATE RL 68H 129
EMKARATE RL 68HP 131
EMKARATE RL 68S 133
EVAP POW'R - C 135
EVAP POW'R - RTU 137
FLUORESCENT GAS LEAK DETECTOR 139
FOAM INSULATION TAPE 141
FOAM-BRITE 143
FREEZ-KONTR'L 145
FREEZ-THERM 147
FREEZ-THERM UH 151
GAS LEAK DETECTOR 153
GAS LEAK DETECTOR - CANADA 155
GREEN CLEAN 157
ICE GUARD 159
ICEMATIC E100 161
ICEMATIC E68 163
ICEMATIC SW 100 165
ICEMATIC SW 220 167
ICEMATIC SW 32 169
ICEMATIC SW 32C 171
ICEMATIC SW 68 173
ICEMATIC SW 68C 175
IMPERIAL SCALE REMOVER 177
IMS-LL ICE MACHINE SANITIZER 179
INSULATION CORDS & SLUGS 181
KLEEN-N-TOSS 183
LIQUID ICE MACHINE CLEANER 185
LIQUID ICE MACHINE CLEANER - CANADA 187
LIQUID SCALE DISSOLVER 189
LIQUID SCALE DISSOLVER - CANADA 191
MICROMET CRYSTALS 193
MICROMET PLATES 195
NICKEL-SAFE ICE MACHINE CLEANER 197
NICKEL-SAFE ICE MACHINE CLEANER - CANADA 199
NO. 340 LIQUID SCALE INHIBITOR 201
NO. 85 ALGAECIDE 203
NO. 90 ALGAECIDE 205
NU-BLAST 207
NU-BRITE 209
NU-FOAM 211
NU-KLEAN II 215
ODOR-FREE DEODORANT TOWELS 217
OXINE 219
PAN PADS CONDENSATE TREATMENT 223
PAN -SPRAY AEROSOL 225
PAN-TREAT 229
PHASE III REFRIGERATION OIL TEST KIT (L) 231
PHASE III REFRIGERATION OIL TEST KIT (S) 233
PIPE-DRI 235
PNEU-FLUSH 237
PRESST-O-CEL INSULATION TAPE 241
QUICK SEAL PIPE REPAIR 243
QUICK SEAL PIPE REPAIR 245
RX11-FLUSH 247
RX-ACID SCAVENGER 251
SAFETY SORBENT 253
SCRUBS 255
SEASON START 257
SEASON TREAT 259
SYSTEM CLEANER, LIQUID 261
THERMO TRAP 263
TRI-POW'R HD 265
TY-ION B11 267
TY-ION B14A 269
TY-ION B17A 271
TY-ION B20 273
TY-ION C70 275
TY-LON B-85 277
URINAKLEEN 279
VACUUM PUMP OIL 281
WELTONE 283
ZEROL 150 REFRIGERATION OIL 285
ZEROL 200TD REFRIGERATION OIL 287
ZEROL 300 289
ZEROL 500 291
ZEROL ICE 293
I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: 10CL Phosphate  
Synonyms: Polyphosphate Glass

Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4539

II - HAZARDOUS INGREDIENTS OF MIXTURES

MATERIAL CAS# % By Wt TLV PEL

According to the OSHA Hazard Communications Standard, (29CFR 1910.1200), this product contains no hazardous ingredients. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Solid  
Evaporation Rate: (ether=1):N/A  
Solubility in H₂O: Complete  
Freezing Point °F: N/A  
Boiling Point °F: Solid  
Specific Gravity H₂O=1 @25° C: Solid

Vapor Density (Air=1) 60-90° F: Solid  
VOC Content (% by wt.): Solid  
pH @ 1% Solution: 7.0 - 7.5  
pH as Distributed: N/A  
Appearance: Clear glassy material  
Odor: Typical

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable  
Flammable Limits: N/A  
Extinguishing Media: Product is non flammable.  
Special Fire Fighting Procedures: None.  
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Wet storage.  
Incompatibility: Strong oxidizer.  
Hazardous Decomposition Products: Unknown.  
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Results from acute toxicity testing show that the material would not be considered toxic as defined by the CPSC protocol. However, product has sharp edges which can cause skin abrasions.  
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Good First Aid should be followed in all cases of exposure.  
EYES: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.  
SKIN: Wash affected area thoroughly. Contact a physician if irritation develops.  
INGESTION: N/A
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Sweep up spilled material and dispose of with other solid wastes. Product is slippery when wet.
Waste Disposal Methods: Disposal of product should be in adherence with above described (or similarly approved) disposal procedure. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Normally not required. Gloves: Rubber gloves
Other Clothing and Equipment: Not required.
Ventilation: Normal.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep container closed. Exercise caution in the storage and handling of all chemical substances.
Additional Information: Read and observe all labeled precautions.

NFPA
Health Hazard ..........: 0
Fire Hazard..............: 0
Reactivity ...............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard..........: 0
Fire Hazard ............: 0
Reactivity ...............: 0
Personnel Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: 6R Micromet  
Synonyms: Inorganic Sodium Calcium Magnesium Phosphate

II - HAZARDOUS INGREDIENTS OF MIXTURES

According to the OSHA Hazard Communication Standard, 29CFR 1910.1200, this product contains no hazardous ingredients. All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Vapor Pressure: Solid  
Evaporation Rate: (ether=1) N/A  
Solubility in H₂O: Complete  
Freezing Point °F: N/A  
Boiling Point °F: Solid  
Specific Gravity H₂O=1 @25° C: Solid

Vapor Density (Air=1) 60-90° F: Solid  
VOC Content (% by wt.): Solid  
pH @ 1% Solution: 7.0-7.5  
pH as Distributed: N/A  
Appearance: Granular, glass-like particles.  
Odor: Typical

IV - FIRE AND EXPLOSION

Flash Point °F: Non flammable  
Flammable Limits: N/A  
Extinguishing Media: Product is non flammable.  
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. A self-contained breathing apparatus is essential.  
Unusual Fire and Explosion Hazards: None Known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Wet storage.  
Incompatibility: Strong acids and bases.  
Hazardous Decomposition Products: None Known.  
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES: Instillation of 0.1% and 5% solutions of a chemically related compound in rabbit eyes followed by irrigation caused no serious injury. SKIN: Toxicity testing on a chemically related compound has shown it to be only mildly irritating to rabbit skin following a 24HR. exposure. However, product has sharp edges which may cause skin abrasion. INGESTION: According to toxicity testing on a chemically related product, it is only moderately toxic through ingestion. The acute oral LD50 (rats) is 2900mg/kg.  
B. SUBCHRONIC, CHRONIC, OTHER: The chemically related compound did not exhibit genetic activity when tested according to the Ames assay. Data from a reproduction study using rats fed a diet of 0.5% of that compound and carried through three generations showed no deficiencies, malformations or chronic effects.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Good First Aid should be followed in all cases of exposure. In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.
SKIN: If contact is made, rinse and wash skin thoroughly.
INGESTION: If swallowed, drink plenty of water and contact a physician.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Sweep up spilled material and repackage. Hose spill area well since product can make floors slippery.
Waste Disposal Methods: Dispose of in a landfill in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required.
Other Clothing and Equipment: Not required.
Ventilation: Normal.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep container closed. Store in a dry place. Exercise caution in the storage and handling of all chemical substances.
Additional Information: Read and observe all labeled precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ............: 0</td>
<td>Health Hazard ............: 0</td>
</tr>
<tr>
<td>Fire Hazard ................: 0</td>
<td>Fire Hazard .............: 0</td>
</tr>
<tr>
<td>Reactivity ..................: 0</td>
<td>Reactivity .............: 0</td>
</tr>
<tr>
<td>Specific Hazard ...........:</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Adhesive
Synonyms: General Purpose Adhesive

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4080

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td># hexane (STEL 1000ppm)</td>
<td>110-54-3</td>
<td>&lt; 50</td>
<td>50ppm</td>
<td>50ppm</td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>&lt; 25</td>
<td>750ppm</td>
<td>1000ppm</td>
</tr>
<tr>
<td>Isobutane/propane blend (STEL NE)</td>
<td>74-98-6</td>
<td>&lt; 25</td>
<td>1000ppm</td>
<td>1000ppm</td>
</tr>
<tr>
<td></td>
<td>75-28-5</td>
<td></td>
<td>800ppm</td>
<td>800ppm</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR372.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: @70°F: 55 psig  
Evaporation Rate: (ether=1): <1  
Solubility in H₂O: Negligible  
Freezing Point °F: N/AV  
Boiling Point °F: Propellant 43.7  
Specific Gravity H₂O=1 @25° C: Propellant 43.7  
Vapor Density (Air=1) 60-90° F: >1  
VOC Content (% by wt.): 85  
pH @ 1% Solution: N/AV  
pH as Distributed: N/AV  
Appearance: Cream-colored liquid  
Odor: Fruity odor

IV - FIRE AND EXPLOSION

Flash Point F: (non-aerosols) N/A  
Flammable Limits: LEL: N/E  UEL: N/E  
Extinguishing Media: Carbon dioxide, dry chemical or foam.  
Special Fire Fighting Procedures: Water may be used to keep fire exposed containers cool. Wear self-contained breathing apparatus.  
Unusual Fire and Explosion Hazards: Do not spray near open flame. Keep at room temperature as exposure to direct sunlight or other heat may cause bursting. Vapors can accumulate in low places and be ignited by source distant from point of release.

V - REACTIVITY DATA

Stability - Conditions to avoid: Heat, sparks, sunlight, flame.  
Incompatibility: Oxidizers  
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.  
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: May irritate upper respiratory system. Vapors in high concentration may produce light-headedness, headache, dizziness, anesthesia, unconsciousness. EYES & SKIN: Causes irritation. INGESTION: Harmful or fatal if swallowed.
B. SUBCHRONIC, CHRONIC, OTHER: Prolonged skin exposure may cause dermatitis. Repeated exposure to hexane has been associated with nervous system damage. Reports have associated repeated and prolonged overexposure to solvents with permanent brain, nervous system, kidney and liver damage.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If symptoms persist, get medical attention.
EYES: Flush with copious amounts of water. If irritation persists, see a physician.
SKIN: Wash area with soap and plenty of water. Remove and launder contaminated clothing before reuse.
INGESTION: Call a physician at once. Do NOT induce vomiting.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Remove all sources of ignition. Ventilate, avoid breathing vapors. Remove with inert absorbent for incineration.
Waste Disposal Methods: Do not incinerate containers. Dispose of in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH-approved respirator with vapor cartridge if levels are exceeded.
Eye Protection: Safety glasses with sideshields
Gloves: Nitrile or neoprene
Other Clothing and Equipment: None Given.
Ventilation: Local exhaust is recommended; general may be needed in low areas.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 120°F. Keep at room temperature as exposure to direct sunlight or heat may cause bursting.
Additional Information: Keep away from children. Do not puncture or incinerate. Do not spray near fire or open flame.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ........</td>
<td>Health Hazard.........</td>
</tr>
<tr>
<td>Fire Hazard ..........</td>
<td>Fire Hazard ..........</td>
</tr>
<tr>
<td>Reactivity ..........</td>
<td>Reactivity ..........</td>
</tr>
<tr>
<td>Specific Hazard ......</td>
<td>Personal Protection ..</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet  
Aerosol CalClean

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Aerosol CalClean  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4081  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>5</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Isobutane</td>
<td>75-28-5</td>
<td>&lt;7</td>
<td>800ppm</td>
<td>800ppm</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>&lt;7</td>
<td>1000ppm</td>
<td>1000ppm</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: 25-35 psig  
Evaporation Rate: (ether=1): N/A  
Solubility in H₂O: Completely  
Freezing Point °F: N/A  
Boiling Point °F: N/A  
Specific Gravity H₂O=1 @25° C: 1.08  
Vapor Density (Air=1) 60-90° F: Heavier  
VOC Content (% by wt.): 7  
pH @ N/A Solution: N/A  
pH as Distributed: N/A  
Appearance: N/A  
Odor: N/A

IV - FIRE AND EXPLOSION

Flash Point F: (non-aerosols) N/A  
Flammable Limits: Non-flammable per USA Flame Projection Test for aerosols  
Extinguishing Media: Carbon dioxide, dry chemical or foam.  
Special Fire Fighting Procedures: Water may be ineffective. Water may be used to keep fire exposed containers cool.  
Unusual Fire and Explosion Hazards: Do not spray near open flame. Keep at room temperature as exposure to direct sunlight or other heat may cause bursting.

V - REACTIVITY DATA

Stability - Conditions to avoid: Do not store above 120°F  
Incompatibility: N/A  
Hazardous Decomposition Products: By open flame: Carbon monoxide, Carbon dioxide.  
Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES, SKIN & INHALATION: In a confined area vapors in high concentration are anesthetic. Irritant to skin and upper respiratory system. Over exposure may result in light-headedness, staggering gait, giddiness and possible nausea. INGESTION: Harmful or fatal if swallowed.  
B. SUBCHRONIC, CHRONIC, OTHER: None Known.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

13
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove patient to fresh air. If symptoms persist, get medical attention.
EYES: Flush with water for at least 15 minutes. If irritation develops, get medical attention.
SKIN: Wash with soap and water.
INGESTION: Call physician immediately. Do NOT induce vomiting.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Remove all sources of ignition, ventilate. Avoid breathing vapors and remove with inert absorbent.
Waste Disposal Methods: Do not incinerate. Replace protective cap and discard in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing of vapor or spray mist.
Eye Protection: Safety glasses
Gloves: Rubber
Other Clothing and Equipment: N/AV
Ventilation: Local exhaust ventilation in volume and pattern to keep air levels below acceptable limits

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 120°F. Keep at room temperature as exposure to direct sunlight or other heat may cause bursting
Additional Information: Do not puncture or incinerate. Do not spray near fire or open flame. Keep away from children.

NFPA
Health Hazard ...........: 0
Fire Hazard...............: 2
Reactivity ...............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard...........: 0
Fire Hazard ..............: 2
Reactivity.................: 0
Personal Protection.... : X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Degreasing Solvent ef
Synonyms: Chlorinated Hydrocarbon Solvent

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4083-75

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stoddard Solvent* (ORAL LD50 &gt; 10mg/kg)</td>
<td>8052-41-3</td>
<td>60</td>
<td>100ppm</td>
<td>0 ppm</td>
</tr>
<tr>
<td>p-Chlorobenzotrifluoride(a)</td>
<td>98-56-6</td>
<td>&lt;10</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>o-Chlorotoluene</td>
<td>95-49-8</td>
<td>&lt;25</td>
<td>50 ppm</td>
<td>250 ppm</td>
</tr>
<tr>
<td>Perchloroethylene(b,c,d,e,f,g)</td>
<td>127-18-4</td>
<td>&lt;15</td>
<td>25 ppm</td>
<td>25 ppm</td>
</tr>
<tr>
<td>Isobutane/Propane Blend</td>
<td>75-28-5</td>
<td>&lt;5</td>
<td>800 ppm</td>
<td>800 ppm</td>
</tr>
<tr>
<td>*STEL=200pp</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) This item is not identified in the available haz. chemicals guides. However, its characteristics parallel hazards of material that is identified; therefore, it will be so identified until further identification.
b) Ingredient subject to reporting under Sec. 313 of Title III (SARA) and 40 CFR 372.
c) RCRA has determined that the waste for this chemical is listed as hazardous and must be handled in accordance with 40 CFR 260-281.
d) CERCLA has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ 100lbs) or greater amounts (40CFR302).
e) Material is on the NTP list of possible carcinogens, IRAC's list of possible carcinogens, OR is regulated by OSHA as a possible carcinogen.
f) Indicates listing in Table Z-2, 29 CFR 1910.1000, detailing acceptable ceiling concentration limits and acceptable maximum peak above ceiling concentration for an 8-hour shift.
g) California Prop. 65 - This compound is known to the state of california to cancer.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: 10 @ 20°C
Evaporation Rate: (ether=1): <1
Solubility in H₂O: Negligible
Freezing Point °F: N/A
Boiling Point °F: 260-380°F (concentrate only)
Specific Gravity H₂O=1 @25° C: 0.910 (conc. only)

IV - FIRE AND EXPLOSION

Flash Point F: >140°F (estimated) Flammable Limits: LEL: 1.0; UEL 7.0
Extinguishing Media: Dry Chemical, foam, CO₂, water, water fog
Special Fire Fighting Procedures: Must wear full facepiece, self-contained breathing apparatus in positive pressure mode. Do not use solid stream of water; use fine water spray.
Unusual Fire and Explosion Hazards: Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water. Caution: material is combustible.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable/Extreme temperatures, open flame, sparks.
Incompatibility: Strong oxidizers, strong acids.
Hazardous Decomposition Products: Thermal decomposition may yield CO, CO₂, HCL fumes, phosgene.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): Acute effects are possible irritation and discomfort; chronic exposure may cause liver, kidney or central nervous system damage. Perchloroethylene is a suspected cancer risk from animal studies, and is listed under IRAC as Group 28, possibly carcinogenic to humans.
B. SUBCHRONIC, CHRONIC, OTHER: INHALATION: High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting or even death in confined or poorly ventilated areas. The primary effect of inhalation is narcosis. SKIN: Brief contact may cause slight irritation; prolonged contact may cause moderate irritation or dermatitis. Problem may be accentuated by liquid becoming trapped against the skin by contaminated clothing and shoes. EYES: High vapor concentration or contact may cause irritation, discomfort or pain. May cause slight transient corneal injury. INGESTION: Swallowing this material may result in irritation of the mouth and GI tract. Vomiting and subsequent aspiration in to the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: May aggravate existing eye, skin or upper respiratory conditions.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air; provide oxygen if breathing is difficult; administer CPR if victim is not breathing; seek medical attention.
EYES: Flush with water for 15 minutes, holding eyelids open; if irritation persists, seek medical attention.
SKIN: Remove contaminated clothing; wash effected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.
INGESTION: If conscious, drink large amounts of water; DO NOT INDUCE VOMITING; take immediately to hospital. Do not give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: COMBUSTIBLE Evacuate and ventilate area; confine and absorb into absorbent; place material into approved containers for disposal; for spills in excess of allowable limits (RQ) notify the National Response Center at (800) 424-8802; refer to CERCLA 40 CFR 302 and SARA Title III, Section 313 40 CFR 372 for detailed instructions concerning reporting requirements. Incinerate or land fill according to local, state or Federal regulations. Do not flush to sewer.
Waste Disposal Methods: Aerosols can when vented to atmospheric pressure through normal use, pose no disposal hazard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH-approved respirator must be worn if OSHA threshold limits exceeded.
Eye Protection: Goggles with side shield. Gloves: Solvent- resistant rubber or neoprene.
Other Clothing and Equipment: Safety eye bath near by.
Ventilation: Local and mechanical exhaust is required.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Material is combustible. Should be stored in tightly closed containers in cool, well ventilated area. Vapor may form explosive mixtures in air. All Sources of ignition should be controlled. Keep this and other chemicals out of reach of children; minimize body contact with this product as well as all chemicals. Avoid inhaling concentrated fumes or vapors. Avoid contamination of food.
Additional Information: Vapors are heavier than air and will collect in low areas. Use only in well-ventilated areas that will maintain air levels below limits established by federal, state, and local regulations.
<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ...........: 1</td>
<td>Health Hazard ...........: 2</td>
</tr>
<tr>
<td>Fire Hazard ................: 2</td>
<td>Fire Hazard ................: 3</td>
</tr>
<tr>
<td>Reactivity ...................: 0</td>
<td>Reactivity ...................: 0</td>
</tr>
<tr>
<td>Specific Hazard ............:</td>
<td>Personal Protection ....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions. While Seller believes that the information contained herein is accurate, such information is offered solely for its customers’ consideration and verification under their specific use conditions.
Material Safety Data Sheet
Aerosol Electrical Contact Cleaner

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Electrical Contact Cleaner
Synonyms: Aerosol Cleaner

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4082

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>5-15 %</td>
<td>400 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>2-Methylpentane</td>
<td>107-83-5</td>
<td>43-48%</td>
<td>500 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>3-Methylpentane</td>
<td>96-14-0</td>
<td>20-25%</td>
<td>500 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>2,3 Dimethylbutane</td>
<td>79-29-8</td>
<td>10-15%</td>
<td>500 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>2,2 Dimethylbutane</td>
<td>75-83-2</td>
<td>&gt;0.01%</td>
<td>500 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>124-38-9</td>
<td>2-6%</td>
<td>5000 ppm</td>
<td>5000 ppm</td>
</tr>
<tr>
<td>n-Hexane#</td>
<td>110-54-3</td>
<td>1-3%</td>
<td>50 ppm</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Psig@70°F(aero.)80-100
Evaporation Rate: N/E
Solubility in H₂O: None
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: Concentrate Only = 0.667
Vapor Density (Air=1) 60-90° F: N/E
VOC Content (% by wt.): 100
pH @ Solution: N/AV
pH as Distributed: N/AV
Appearance: Clear, forceful spray
Odor: Aliphatic solvent odor

IV - FIRE AND EXPLOSION

Flash Point F: Flash Point not established; FLAMMABILITY as per USA FLAME PROJECTION TEST for aerosols: EXTREMELY FLAMMABLE Flammable Limits: N/A
Extinguishing Media: Foam, Dry Chemical, Carbon Dioxide
Special Fire Fighting Procedures: Self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Do not expose aerosols to temps. above 130°F, container may rupture.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable - Open flame, welding arcs, heat & sparks.
Incompatibility: Strong oxidizing agents.
Hazardous Decomposition Products: Carbon dioxide & carbon monoxide
Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: Excessive inhalation of vapors can cause nasal & respiratory irritation, weakness, nausea, headache, dizziness, asphyxia and possible unconsciousness. EYES: Slight irritation. SKIN: Slight irritation due to defatting of skin. INGESTION: Irritation

B. SUBCHRONIC, CHRONIC, OTHER: (Effects due to excessive exposure to the raw materials of this mixture) Excessive inhalation may result in central nervous system effects.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: May aggravate existing eye, skin or upper respiratory conditions.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Resuscitate if necessary. Get medical attention.
EYES: Flush with water for 15 minutes. If irritation persists, see a physician.
SKIN: Wash area with soap and plenty of water. If irritated, seek medical attention.
INGESTION: DO NOT INDUCE VOMITING. Drink two large glasses of water. Get medical attention immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb with suitable medium. Incinerate or landfill according to local, state or Federal regulations. DO NOT FLUSH TO SEWER.
Waste Disposal Methods: Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If vapor concentration exceeds TLV, use respirator approved by NIOSH for organic vapor.
Other Clothing and Equipment: None.
Ventilation: Adequate ventilation to keep vapor concentration below TLV.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 130°F. Do not puncture or incinerate containers.
Additional Information: Keep away from children. Wash with soap & water before handling food.

NFPA
Health Hazard............: 2
Fire Hazard..............: 3
Reactivity ...............: 0
Specific Hazard ........: 

HMIS RATING
Health Hazard............: 2
Fire Hazard..............: 3
Reactivity ...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Aerosol EM Degreasing Solvent  
Synonyms: Aerosol Motor Cleaner  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4083

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>trichloroethylene</td>
<td>79-01-6</td>
<td>&lt;55</td>
<td>50 ppm</td>
<td>50 ppm</td>
</tr>
<tr>
<td>perchloroethylene</td>
<td>127-18-4</td>
<td></td>
<td>25 ppm</td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.

WARNING: This product contains a chemical or chemicals known to the State of California to cause cancer. All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: @20°C: 85-100 psig
- Evaporation Rate: 2.1 concentrate only
- Solubility in H₂O: Insoluble
- Freezing Point *F: N/A
- Boiling Point *F: N/A
- Specific Gravity H₂O=1 @25° C: 1.6
- Vapor Density (Air=1) 60-90° F: N/E
- VOC Content (% by wt.): 100
- pH @ Solution: N/AV
- pH as Distributed: N/AV
- Appearance: Clear, colorless spray
- Odor: Chlorinated solvent odor

IV - FIRE AND EXPLOSION

- Flash Point F: propellant <20°F
- Flammable Limits: N/E N/E
- Extinguishing Media: CO₂, foam, dry chemical
- Special Fire Fighting Procedures: Self contained breathing apparatus.
- Unusual Fire and Explosion Hazards: Do not expose aerosols to temperatures above 130°F or the container may rupture.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable - Open flame, high temperatures, welding arcs.
- Incompatibility: Reactive metals aluminum, magnesium, strong oxidizing agents.
- Hazardous Decomposition Products: CO₂, CO, HCl, small amounts of phosgene and chlorine.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure): INHALATION: Excessive inhalation of vapors can be harmful and may cause headaches, dizziness, asphyxia, anesthetic effects and possible unconsciousness. EYES: Irritation SKIN: Irritation due to defatting of skin. INGESTION: Possible chemical pneumonitis if aspirated into lungs. Nausea.

B. SUBCHRONIC, CHRONIC, OTHER: (Effects due to excessive exposure to the raw materials of this mixture) May cause liver abnormalities, kidney, spleen, lung or brain damage, cardiac abnormalities. Perchloroethylene has been shown to increase the rate of spontaneously occurring malignant tumors in certain laboratory rats and mice.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Resuscitate of necessary. Get medical attention.
EYES: Flush with water for 15 minutes. If irritation persists, see a physician.
SKIN: Wash area with soap and plenty of water. If irritated, seek medical attention.
INGESTION: DO NOT INDUCE VOMITING. Drink two large glasses of water. Get immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb with suitable medium. Incinerate or landfill according to local, state or Federal regulations. Allow to evaporate if small spill. DO NOT FLUSH TO SEWER.
Waste Disposal Methods: Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If vapor concentration exceed TLV, use respirator approved by U. S. Bureau of Mines for organic vapor.
Eye Protection: Safety glasses Gloves: Neoprene
Other Clothing and Equipment: None.
Ventilation: Adequate ventilation to keep vapor concentration below TLV.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 130°F. Do not puncture or incinerate containers.
Additional Information: Keep away from children. Avoid food contamination. Avoid inhalation of vapors.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 2</td>
<td>Health Hazard.........: 2</td>
</tr>
<tr>
<td>Fire Hazard............: 0</td>
<td>Fire Hazard ..........: 0</td>
</tr>
<tr>
<td>Reactivity ............: 0</td>
<td>Reactivity ..........: 0</td>
</tr>
<tr>
<td>Specific Hazard .......:</td>
<td>Personal Protection..: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Aerosol Evap Foam No Rinse

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Evap Foam No Rinse
Synonyms: Aerosol Coil Cleaner

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylene glycol monoethyl ether*</td>
<td>111-90-0</td>
<td>2.0</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Ethylene glycol monobutyl ether*</td>
<td>111-76-2</td>
<td>2.0</td>
<td>25 ppm</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Propellant</td>
<td>68956-79-6</td>
<td>5.0</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>

*SARA Section 313 Listed
VOC Content: 9.39% By Weight
All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: (psig @ 25°C) 50 psig
- Evaporation Rate: (Butyl Acetate=1) <1
- Solubility in H₂O: Soluble
- Freezing Point °F: N/A
- Boiling Point °F: N/A
- Specific Gravity H₂O=1 @25° C: 1.02
- Vapor Density (Air=1) 60-90° F: >1
- VOC Content (% by wt.): 9.39% By Weight
- pH @ 25°C Solution: 12.0
- pH as Distributed: N/E
- Appearance: White foam
- Odor: Sweet

IV - FIRE AND EXPLOSION

- Flash Point F: N/A Flammable Limits: None
- Extinguishing Media: CO₂, Standard Foam, Dry Chemical, Halon
- Special Fire Fighting Procedures: Wear self-contained breathing apparatus.
- Unusual Fire and Explosion Hazards: Exposure to temperature above 120°F may cause bursting.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable
- Incompatibility: Avoid contact with strong oxidizing agents, heat above 120°F.
- Hazardous Decomposition Products: Carbon dioxide, Carbon monoxide
- Conditions Contributing to Hazardous Polymerizations: Product will not undergo hazardous polymerization.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: May cause irritation, redness, or watering. SKIN: May cause irritation to persons with sensitive condition. INGESTION: May cause nausea, vomiting, stomach discomfort. INHALATION: Over exposure may cause nausea, vomiting, upper respiratory discomfort.
B. SUBCHRONIC, CHRONIC, OTHER: (Medical Condition Aggravated by Exposure): Skin sensitivity, chemical allergies, heart condition.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
**VII - EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** Remove to fresh air.
**EYES:** Flush with water for 15 minutes. If irritation persists, seek medical attention.
**SKIN:** Wash with soap and water. If irritation persists, seek medical attention.
**INGESTION:** Do not induce vomiting. Seek medical attention.

**VIII - SPILL OR LEAK PROCEDURE**

**Spill Management:** Small spill - Absorb liquid with vermiculite, floor absorbent or other absorbent material. Large spill - Evacuate area. Remove all sources of ignition. Contain liquid. Prevent run-off to sewer.
**Waste Disposal Methods:** Dispose of spilled material in accordance with all applicable local, state and federal regulations. Wrap empty container in paper and place in trash.

**IX - PROTECTION INFORMATION/CONTROL MEASURES**

**Respiratory:** Not Required
**Eye Protection:** Safety goggles
**Gloves:** Rubber gloves
**Other Clothing and Equipment:** For short usages, no safety equipment required.
**Ventilation:** General ventilation recommended to control the level of vapors.

**X - SPECIAL PRECAUTIONS**

**Precautions to be taken in Handling and Storing:** Keep out of the reach of children. Do not store where temperatures exceed 120°F. Wash hands before eating or smoking after using aerosol.
**Additional Information:** N/A

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
<tr>
<td>0</td>
<td>X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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# Material Safety Data Sheet
## Aerosol Food Grade Silicone

## I - PRODUCT IDENTIFICATION

<table>
<thead>
<tr>
<th>Company Name:</th>
<th>Nu-Calgon Wholesaler, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>2008 Altom Court, St. Louis, MO 63146-4151</td>
</tr>
<tr>
<td>Product Name:</td>
<td>Aerosol Food Grade Silicone</td>
</tr>
<tr>
<td>Synonyms:</td>
<td>Aerosol Lubricant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tel No:</th>
<th>(314) 469-7000, (800) 554-5499</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEMTREC:</td>
<td>(800) 424-9300</td>
</tr>
<tr>
<td>Product Number:</td>
<td>4084</td>
</tr>
</tbody>
</table>

## II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly-Dimethylsiloxane</td>
<td>63148-62-9</td>
<td>4-12</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Hexane</td>
<td>110-54-3</td>
<td>40-50</td>
<td>50ppm</td>
<td>50ppm</td>
</tr>
<tr>
<td>Isobutane/propane blend</td>
<td>75-28-5; 74-98-6</td>
<td>40-50</td>
<td>800 ppm</td>
<td>800 ppm</td>
</tr>
</tbody>
</table>

#Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372

All ingredients are TSCA listed.

## III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Vapor Pressure: PSIG @ 70°F: Max 60</th>
<th>Vapor Density (Air=1) 60-90° F: N/E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaporation Rate: (ether=1)</td>
<td>VOC Content (% by wt.): 95</td>
</tr>
<tr>
<td>Solubility in H₂O: Insoluble</td>
<td>pH @ Solution: N/A</td>
</tr>
<tr>
<td>Freezing Point °F: N/A</td>
<td>pH as Distributed: N/A</td>
</tr>
<tr>
<td>Boiling Point °F: N/A</td>
<td>Appearance: Clear colorless spray</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C: 0.695</td>
<td>Odor: Ketone odor</td>
</tr>
</tbody>
</table>

## IV - FIRE AND EXPLOSION

<table>
<thead>
<tr>
<th>Flash Point F: N/A</th>
<th>Flammable Limits: Extremely Flammable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extinguishing Media:</td>
<td>CO₂, dry chemical, or foam.</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures:</td>
<td>Wear self-contained breathing apparatus. Use water fog to prevent rupturing &amp; exploding containers. Provide shielding for personnel.</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards:</td>
<td>Do not expose aerosols to temperature above 130°F or container may rupture.</td>
</tr>
</tbody>
</table>

## V - REACTIVITY DATA

| Stability - Conditions to avoid: | Stable - avoid open flame, sparks, heat, welding arc. |
| Incompatibility: | Strong oxidizing agents. |
| Hazardous Decomposition Products: | Carbon monoxide, carbon dioxide. |
| Conditions Contributing to Hazardous Polymerizations: | Will not occur. |

## VI - HEALTH HAZARD DATA

**EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),**

### A. ACUTE (Primary Route of Exposure):

- **INHALATION:** Excessive inhalation of vapors can cause nasal & respiratory irritation, dizziness, weakness, nausea, headache, possible unconsciousness or asphyxiation. EYES: Irritation. SKIN: Irritation due to defatting of skin. INGESTION: Possible chemical pneumonitis is aspirated into lungs.

### B. SUBCHRONIC, CHRONIC, OTHER:

- Excessive inhalation of hexane may cause nerve damage. May aggravate existing eye, skin, or upper respiratory conditions.

### C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Resuscitate if necessary. Get medical attention.
EYES: Flush with water for at least 15 minutes. If irritated, seek medical attention.
SKIN: Wash with soap and water. If irritated, seek medical attention.
INGESTION: DO NOT INDUCE VOMITING. Drink two large glasses of water. Get immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb with suitable medium. Incinerate or landfill according to local, state or federal regulations. DO NOT FLUSH TO SEWER. CAUTION: Silicone makes surfaces slippery.
Waste Disposal Methods: Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If vapor concentration exceeds TLV, use respirator approved by NIOSH in a positive pressure mode.
Eye Protection: Safety glasses
Gloves: Neoprene
Other Clothing and Equipment: None
Ventilation: Provide local exhaust ventilation to keep TLV of all hazardous ingredients below acceptable limits and LEL in section II below stated limit.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 130°F. Do not puncture or incinerate.
Additional Information: Keep away from children. Do not spray near fire or open flame.

NFPA
Health Hazard ..........: 2
Fire Hazard ............: 4
Reactivity .............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 2
Fire Hazard ............: 4
Reactivity .............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Aerosol Nu-Kill

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Nu-Kill
Synonyms: (Aerosol) Pesticides - Wasp & Hornet
EPA Regis. No. 10807-48-65516
EPA Est. No. 10807-GA-1

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4292

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>&lt;10</td>
<td>350ppm</td>
<td>350ppm</td>
</tr>
<tr>
<td>Pyrethrin</td>
<td>8003-34-7</td>
<td>&lt;5</td>
<td>5mg/m3</td>
<td>5mg/m3</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>&lt;5</td>
<td>400ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>Insecticide Concentrate: 0.5</td>
<td>114-26-1</td>
<td>&lt;5</td>
<td>0.5mg/M3</td>
<td>0.5mg/M3</td>
</tr>
<tr>
<td>propoxur **</td>
<td>51-03-6</td>
<td></td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Piperonyl butoxide, Technical**</td>
<td>113-48-4</td>
<td></td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

dicarboxuimide

** SARA III Listed
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A
Evaporation Rate: (ether=1): >ether
Solubility in H2O: Insoluble
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H2O=1 @25° C: 0.7819

Vapor Density (Air=1) 60-90° F: >air
VOC Content (% by wt.): 99
pH @ N/A Solution: N/A
pH as Distributed: N/A
Appearance: Pesticides
Odor: Pesticides

IV - FIRE AND EXPLOSION

Flash Point F: N/A
Flammable Limits: N/A
Extinguishing Media: Carbon dioxide, dry chemical or foam.
Special Fire Fighting Procedures: Water may be ineffective. Water may be used to keep fire exposed containers cool.

Unusual Fire and Explosion Hazards: Do not spray near open flame or expose to temperatures above 130°F. Keep at room temperature as exposure to direct sunlight or other heat may cause bursting.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable - Overexposure in confined area. Open flame, welding arcs, extreme heat, sparks
Incompatibility: Alkaline materials and water
Hazardous Decomposition Products: By open flame: Carbon Monoxide, Carbon Dioxide,
Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): In a confined area vapors in high concentration are anesthetic. Irritant to skin and upper respiratory system. Over-exposure may result in headache, dizziness, asphyxia, anesthetic effects, and possible unconsciousness. Irritant to eyes and skin. Possible chemical pneumonitis if aspirated into lungs.
Nausea.
B. SUBCHRONIC, CHRONIC, OTHER: Repeated and prolonged overexposure (to raw materials) may cause cardiac abnormalities, central nervous system depression, lung, kidney, liver damage; inhibits cholinesterase.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Resuscitate if necessary; seek medical attention
EYES: Flush with water for at least 15 minutes; if irritated, seek medical attention.
SKIN: Flush with soap and water for at least 15 minutes; if irritated, seek medical attention.
INGESTION: GET MEDICAL ATTENTION IMMEDIATELY. Atropine sulfate is antidote. Treat like typical organic phosphate poisoning. Induce vomiting only at physician's recommendation.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Remove all sources of ignition, ventilate, avoid breathing vapors. Remove with inert absorbents.
Waste Disposal Methods: Do not incinerate - dispose of in accordance with federal, state and local regulations regarding pollution.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing vapor or spray mist.
Eye Protection: Safety glasses Gloves: Disposable
Other Clothing and Equipment: Protective gloves for prolonged or repeated contact. Use gloves recommended by glove supplier for protection against materials in Section II.
Ventilation: Provide local exhaust ventilation in volume and pattern to keep TLV of all hazardous ingredients in Section II below acceptable limit, and LEL in Section II below stated limit.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 120°F. Keep at room temperature to avoid bursting. Keep away from children. Do not puncture or incinerate. Do not spray near fire or open flame.
Additional Information: None.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 2</td>
<td>Health Hazard ..........: 2</td>
</tr>
<tr>
<td>Fire Hazard ............: 3</td>
<td>Fire Hazard ............: 3</td>
</tr>
<tr>
<td>Reactivity .............: 0</td>
<td>Reactivity .............: 0</td>
</tr>
<tr>
<td>Specific Hazard .......:</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Aerosol Nu-Kill II
Synonyms: Aerosol Wasp & Hornet Spray
Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4292-75

EPA Regis. No. 10807-196-65516
EPA Est. No. 10807-GA-1

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Distillate</td>
<td>64742-47-8</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td><strong>Tetramethrin (0.1-0.2%)</strong></td>
<td>7696-12-0</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td><strong>Permethrin (0.1-0.4%)</strong></td>
<td>52645-53-1</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td><strong>Piperonyl Butoxide</strong></td>
<td>51-03-6</td>
<td>N/E</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

**This ingredient is SARA III listed.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: @ 70°F (Aerosols): 85-100
Evaporation Rate: N/A
Solubility in H₂O: None
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25°C: 0.80

Vapor Density (Air=1) 60-90°F: N/A
VOC Content (% by wt.): N/A
pH @ Solution: N/A
pH as Distributed: N/A
Appearance: Jet stream spray
Odor: Petroleum distillate

IV - FIRE AND EXPLOSION

Flash Point F: N/A Flammable Limits: Per USA Flame Projection Test (aerosols): Non Flammable
Extinguishing Media: Carbon dioxide, dry chemical or foam.
Special Fire Fighting Procedures: Self-contained breathing apparatus
Unusual Fire and Explosion Hazards: Do not spray near open flame or expose to temperatures above 130°F. or container may burst.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable - Overexposure in confined area. Open flame, welding arcs, extreme heat, sparks.
Incompatibility: Strong oxidizing agents
Hazardous Decomposition Products: CO₂, CO
Conditions Contributing to Hazardous Polymerizations: Will not occur
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): In a confined area vapors in high concentration are anesthetic. Irritant to eyes and skin; may cause mild defatting of skin. Irritant to upper respiratory system. Excessive inhalation of vapors can be harmful and may cause headache, dizziness, anesthetic effects, respiratory depression, cholinesterase depression and nausea.

B. SUBCHRONIC, CHRONIC, OTHER: Repeated and prolonged overexposure (to raw materials) may cause cardiac abnormalities, central nervous system depression, lung, kidney, liver damage; inhibits cholinesterase.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: May aggravate existing eye, skin or upper respiratory conditions.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Resuscitate if necessary; seek medical attention
EYES: Flush with water for at least 15 minutes; if irritated, seek medical attention.
SKIN: Flush with soap and water for at least 15 minutes; if irritated, seek medical attention.
INGESTION: DO NOT INDUCE VOMITING. Drink two large glasses of water. Get immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb with suitable medium. Dispose of in accordance with local, state or federeal regulations. Do not flush to sewer.

Waste Disposal Methods: Aerosol cans when vented to atmospheric pressure through normal use pose no disposal hazard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing vapor or spray mist.
Eye Protection: Safety glasses
Gloves: Rubber gloves
Other Clothing and Equipment: Protective gloves for prolonged or repeated contact. Use gloves recommended by glove supplier for protection against materials in Section II.
Ventilation: Provide local exhaust ventilation in volume and pattern to keep TLV of all hazardous ingredients in Section II below acceptable limit.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 120°F. Keep at room temperature to avoid bursting. Keep away from children. Do not puncture or incinerate. Do not spray near fire or open flame.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard: 1</td>
<td>Health Hazard: 1</td>
</tr>
<tr>
<td>Fire Hazard: 2</td>
<td>Fire Hazard: 2</td>
</tr>
<tr>
<td>Reactivity: 0</td>
<td>Reactivity: 0</td>
</tr>
<tr>
<td>Specific Hazard:</td>
<td>Personal Protection: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Name: Aerosol Pan-Spray  
Product Number: 4296

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbon Propellant</td>
<td>68476-86-8</td>
<td></td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td>Dichloromethane</td>
<td>75-09-2</td>
<td>25</td>
<td></td>
<td>500</td>
</tr>
<tr>
<td>n-Tallowalkyl Trimethylene</td>
<td>61791-53-5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diamines Ole.</td>
<td>N/E</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum Asphalt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dichloromethane is on Sara 313 List
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: PSIG @ 70°F (Aerosols) N/D  
Evaporation Rate: N/E  
Solubility in H₂O: Nil  
Freezing Point °F: N/E  
Boiling Point °F: N/E  
Specific Gravity H₂O=1 @25° C:  
Vapor Density (Air=1) 60-90° F: N/D  
VOC Content (% by wt.):  
ph @ Solution:  
pH as Distributed: N/E  
Appearance: White asphalt  
Odor: Asphalt

IV - FIRE AND EXPLOSION

Flash Point F: Level 2 Flammable Limits: Lower - 1.0 Upper - 6.0  
Extinguishing Media: Foam, dry chemical, carbon dioxide, water  
Special Fire Fighting Procedures: Use water spray to cool fire exposed surfaces and to protect personnel, isolate "fuel" supply from fire. Avoid spraying water directly into storage containers due to danger of boil over. This liquid is volatile and gives off invisible vapors. Either the liquid or vapor may settle in low areas or travel some distance along the ground or surface to ignition sources where they may ignite or explode.  
Unusual Fire and Explosion Hazards: Contents under pressure. Do not expose aerosols to temperatures above 130°F or the container may rupture.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable - Open flame, welding arcs, heat.  
Incompatibility: Strong oxidizers  
Hazardous Decomposition Products: Carbon Monoxide, carbon dioxide  
Conditions Contributing to Hazardous Polymerizations: Will not occur
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure): INHALATION: Excess inhalation may produce symptoms of central nervous system depression, ranging from light-headedness, nausea and vomiting, to unconsciousness and death. EYES: An irritant of the eyes, causing pain, lacrimation and general inflammation. SKIN: Mildly irritating to the skin. Skin contact may produce burning sensation - prolonged or repeated contact may cause skin to become reddened, rough, and dry due to removal of natural oils and may result in dermatitis. INGESTION: May cause irritation to the gastrointestinal tract with vomiting. If vomiting results in aspiration, chemical pneumonia may follow. Absorption through the gastrointestinal tract may produce symptoms of central nervous system depression ranging from light headedness to unconsciousness.

B. SUBCHRONIC, CHRONIC, OTHER: Can cause headaches, mental confusion, depression, fatique, loss of sense of balance, and visual disturbances. Excessive exposure may cause cardiac arrhythmias, carboxyhemoglobinemia, liver and kidney effects.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: May aggravate existing eye, skin or upper respiratory conditions.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

EYES: Irrigate with flowing water immediately and continuously for 15 minutes. Consult medical personnel.

SKIN: Wash off in flowing water or shower.

INGESTION: DO NOT INDUCE VOMITING. Call a physician and/or transport to emergency facility immediately.

NOTE TO PHYSICIAN: Because rapid absorption may occur through lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage if performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Exposure may increase "myocardial irritability". Do not administer sympathomimetic drugs unless absolutely necessary.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Clean up area by mopping or with absorbent materials and place in closed container for disposal Consult Federal, State, and local disposal authorities for approved procedures.

Waste Disposal Methods: Consult local authorities for proper waste disposal procedures. Empty, de-pressurized containers cannot be reused. Cans which are pressurized or contain liquid must be disposed of in a permitted waste management facility. Consult Federal, State and local disposal authorities for approved procedures.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Based on contamination level and working limits of the respirator, use of respirator approved by NIOSH/MSHA.

Eye Protection: Face shield and goggles or chemical goggles should be worn. Gloves: Impervious gloves should be worn. Gloves contaminated with product should be discarded. Polyfluorinated polyethylene has been suggested.

Other Clothing and Equipment: Standard work clothing. Standard work shoes; discard if shoes cannot be decontaminated. Store contaminated clothing in well ventilated cabinets or closed containers. Wash contaminated clothing and dry before reuse.

Ventilation: Use adequate level exhaust ventilation. Note: Where carbon monoxide may be generated, special ventilation may be required. Local exhaust recommended when appropriate to control employee exposure.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: When utilizing pressurized containers follow standard safety practices for handling aerosols. Do not puncture or incinerate containers. Do not store at temperatures above 130 F. Odor is not an adequate warning of potentially hazardous concentrations in air. Releases of these gases may cause a flammable atmosphere with explosion potential.

Additional Information: Keep out of the reach of children. Avoid food contamination. Avoid breathing vapors. Remove ignition sources.
<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 1</td>
<td>Health Hazard ...........: 1</td>
</tr>
<tr>
<td>Fire Hazard ..............: 3</td>
<td>Fire Hazard ...............: 3</td>
</tr>
<tr>
<td>Reactivity ...............: 0</td>
<td>Reactivity .................: 0</td>
</tr>
<tr>
<td>Specific Hazard ........:</td>
<td>Personal Protection ....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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Material Safety Data Sheet
Aerosol Penetrating Lubricant

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Penetrating Lubricant
Synonyms: Aerosol Lubricant

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td># 2-butoxyethanol</td>
<td>111-76-2</td>
<td>&lt;60</td>
<td>25 ppm</td>
<td>25 ppm</td>
</tr>
<tr>
<td>Isobutane/propane blend</td>
<td>75-28-5</td>
<td>&lt;5</td>
<td>800 ppm</td>
<td>800 ppm</td>
</tr>
<tr>
<td></td>
<td>74-98-6</td>
<td>&lt;15</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Aliphatic Petroleum Distillate</td>
<td>64742-96-7</td>
<td>&lt;15</td>
<td>100 ppm</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Petroleum Distillate</td>
<td>64742-52-5</td>
<td></td>
<td>5mg/M3</td>
<td>5mg/M3</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and CRF 372.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: 50-60 psig @20°C
Evaporation Rate: (BuAc=1) Faster
Solubility in H₂O: Negligible
Freezing Point °F: N/AV
Boiling Point °F: Propellant -43.7
Specific Gravity H₂O=1 @25° C: 1.08
Vapor Density (Air=1) 60-90° F: >1
VOC Content (% by wt.): N/AV
pH @ Solution: N/AV
pH as Distributed: N/AV
Appearance: Pale yellow liquid
Odor: Hydrocarbon odor

IV - FIRE AND EXPLOSION

Flash Point F: Propellant <20°F (TCC) Flammable Limits: LEL: 1.8 UEL: 25
Extinguishing Media: CO₂, dry chemical, foam.
Special Fire Fighting Procedures: Water may be ineffective. Water may be used to keep fire exposed containers cool.
Unusual Fire and Explosion Hazards: Do not spray near open flame. Keep at room temperature as exposure to direct sunlight or other heat may cause bursting.

V - REACTIVITY DATA

Stability - Conditions to avoid: Do not store above 120°F.
Incompatibility: Strong oxydizers, aluminum.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES-SKIN-INHALATION & INGESTION: In a confined area, vapors in high concentration are anesthetic. Irritant to eyes, skin and upper respiratory system. Overexposure may result in light-headedness, staggering gait, giddiness and possible nausea. Contains petroleum distillates. Harmful or fatal if swallowed.
B. SUBCHRONIC, CHRONIC, OTHER: Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage, also kidney and liver damage.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

**INHALATION:** Remove patient to fresh air.
**EYES:** Flush with water for at least 15 minutes.
**SKIN:** Wash with soap and water.
**INGESTION:** Call a physician immediately. Do NOT induce vomiting.

VIII - SPILL OR LEAK PROCEDURE

**Spill Management:** Remove all sources of ignition. Ventilate, avoid breathing vapors and remove with inert absorbent.
**Waste Disposal Methods:** Do not incinerate. Recap container and discard in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

**Respiratory:** Avoid breathing vapor or spray mist.
**Eye Protection:** Safety glasses with sideshield. **Gloves:** Solvent resistant gloves recommended.
**Other Clothing and Equipment:** None.
**Ventilation:** Local exhaust is recommended.

X - SPECIAL PRECAUTIONS

**Precautions to be taken in Handling and Storing:** Do not store above 120°F. Keep at room temperature as exposure to direct sunlight or heat may cause bursting.
**Additional Information:** Keep away from children. Do not puncture or incinerate. Do not spray near fire or open flame. Deliberate concentration and inhalation of vapors may be harmful or fatal.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ............</td>
<td>Health Hazard .............</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fire Hazard ..............</td>
<td>Fire Hazard ..............</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Reactivity ................</td>
<td>Reactivity ...............</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Specific Hazard ..........</td>
<td>Personal Protection .......</td>
</tr>
<tr>
<td></td>
<td>X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Pump Protector
Synonyms: Lubricating coating for pumps

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4299

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>propylene glycol</td>
<td>57-55-6</td>
<td>&lt;20</td>
<td>50ppm</td>
<td>NE</td>
</tr>
<tr>
<td>isobutane</td>
<td>75-28-5</td>
<td>&lt;5</td>
<td>1000ppm</td>
<td>1000ppm</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>&lt;5</td>
<td>1000pp,</td>
<td>1000ppm</td>
</tr>
</tbody>
</table>

VOC Content: 24.38% By Weight
All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: @20°F: 50-60 psig
- Evaporation Rate: (ether=1): <1
- Solubility in H₂O: Soluble
- Freezing Point °F: N/AV
- Boiling Point °F: -43.7 (propellant)
- Specific Gravity H₂O=1 @25° C: 0.839
- Vapor Density (Air=1) 60-90° F: >1
- VOC Content (% by wt.): 27
- pH @ Solution: N/AV
- pH as Distributed: N/AV
- Appearance: White foam
- Odor: Typical

IV - FIRE AND EXPLOSION

- Flash Point F: Propellant < 0°F Flammable Limits: LEL: 1.8 UEL: 16
- Extinguishing Media: CO₂, foam, dry chemical.
- Special Fire Fighting Procedures: Firefighters should wear self-contained breathing apparatus operated under positive pressure.
- Unusual Fire and Explosion Hazards: Exposure to direct sunlight or temperatures over 120°F may cause bursting, releasing highly flammable gas.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable, avoid extreme heat.
- Incompatibility: Strong oxidizers.
- Hazardous Decomposition Products: Carbon monoxide, carbon dioxide
- Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: Excessive inhalation can cause nasal and respiratory irritation, dizziness, unconsciousness and asphyxiation. SKIN: Moderately irritating. EYES: Severe eye irritant, INGESTION: Nausea, vomiting, diarrhea.
B. SUBCHRONIC, CHRONIC, OTHER: Use of solvents has been connected with cardiac abnormalities, liver, kidney and lung damage.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If symptoms persist, get medical attention.
EYES: In case of eye contact, flush with water for at least 15 minutes. If irritation persists, get medical attention.
SKIN: For skin contact, wash thoroughly with soap and water.
INGESTION: Do not induce vomiting. Get immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Eliminate sources of ignition. Ventilate area. Soak up on absorbant material for disposal.
Waste Disposal Methods: Dispose of in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: With organic vapor canister if ventilation is poor.
Eye Protection: Safety glasses Gloves: Solvent resistant
Other Clothing and Equipment: Not normally required.
Ventilation: Local exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 120°F or in direct sunlight. Keep away from children.
Additional Information: Do not puncture or incinerate. Do not spray near fire or open flame.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ...</td>
<td>Health Hazard........</td>
</tr>
<tr>
<td>Fire Hazard.......</td>
<td>Fire Hazard ...........</td>
</tr>
<tr>
<td>Reactivity ........</td>
<td>Reactivity...............</td>
</tr>
<tr>
<td>Specific Hazard ...</td>
<td>Personal Protection....</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Spray-n-Bond
Synonyms: Insulation Adhesive

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4369

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>750</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>Hexane</td>
<td>110-54-3</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Isobutane/Propane Blend</td>
<td>75-28-5</td>
<td>800</td>
<td>800</td>
<td>800</td>
</tr>
<tr>
<td></td>
<td>74-98-6</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
</tbody>
</table>

No ingredients are on the SARA 313 List
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: psig@70°F (aerosols): max 80
Evaporation Rate: N/E
Solubility in H₂O: Partial
Freezing Point °F: N/E
Boiling Point °F: N/E
Specific Gravity H₂O=1 @25° C: 0.853 (conc. only)

Vapor Density (Air=1) 60-90° F: N/E
VOC Content (% by wt.):
ph @ Solution:
pH as Distributed: N/E
Appearance: Straw colored liquid
Odor: Keytone solvent

IV - FIRE AND EXPLOSION

Flash Point F: Extremely Flammable
Flammable Limits: N/E
Extinguishing Media: Foam, dry chemical, carbon dioxide, water
Special Fire Fighting Procedures: Self-contained breathing apparatus. Use water fog to cool containers to prevent rupturing & exploding containers. Provide shielding for personnel.
Unusual Fire and Explosion Hazards: Do not expose aerosol to temperatures above 130°F or the containers may rupture.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable - Open flame, welding arcs, heat, sparks
Incompatibility: strong oxidizing agents
Hazardous Decomposition Products: carbon monoxide, carbon dioxide
Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: Excessive inhalation of vapors can cause nasal & respiratory irritation, izziness, weakness, nausea, headache, possible unconsciousness or asphyxiation EYES: May be irritating to eyes SKIN: May be irritating due to defatting of skin INGESTION: Possible chemical pneumonitis if aspirated into lungs
B. SUBCHRONIC, CHRONIC, OTHER: (Excessive exposure to raw materials.) Excessive inhalation of hexane may cause nerve damage
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: May aggravate existing eye, skin or upper respiratory conditions
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Resuscitate if necessary. Get medical attention.
EYES: Flush with water for 15 minutes. If irritated, seek medical attention.
SKIN: Wash with soap and water. If irritated, seek medical attention.
INGESTION: DO NOT INDUCE VOMITING Drink two large glasses of water. Get immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb with suitable medium. Incinerate or landfill according to local, state or federal regulations. Do not flush to sewer.
Waste Disposal Methods: Aerosol cans when vented to atmospheric pressure through normal use pose no disposal hazard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If vapor concentration exceeds TLV, use respirator approved by NIOSH in positive pressure mode
Eye Protection: Safety glasses recommended Gloves: Neoprene
Other Clothing and Equipment: None
Ventilation: Adequate ventilation to keep vapor concentration below TLV.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not puncture or incinerate containers. Do not store at temperatures above 130oF.
Additional Information: Keep out of the reach of children. Avoid food contamination. Avoid breathing vapors. Remove ignition sources.

NFPA
Health Hazard ............:
Fire Hazard..............:
Reactivity ...............:
Specific Hazard ........:

HMIS RATING
Health Hazard............: 2
Fire Hazard .............: 3
Reactivity ...............: 0
Personal Protection......: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgan Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Aerosol V-Belt Dressing  
Synonyms: Aerosol Coating

Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4086

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>hexane</td>
<td>110-54-3</td>
<td>&lt;80</td>
<td>50 ppm</td>
<td>50 ppm</td>
</tr>
<tr>
<td>polybutenes</td>
<td>9003-29-6</td>
<td>&lt;10</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>&lt;10</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>isobutane</td>
<td>75-28-5</td>
<td></td>
<td>800 ppm</td>
<td>800 ppm</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372. All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: 50-60 psig @ 20°C
- Evaporation Rate: (BuAc=1) 2.48
- Solubility in H₂O: Negligible
- Freezing Point °F: N/AV
- Boiling Point °F: N/AV
- Specific Gravity H₂O=1 @ 25°F: 0.675
- Vapor Density (Air=1) 60-90°F: >1
- VOC Content (% by wt.): 96
- pH @ Solution: N/AV
- pH as Distributed: N/AV
- Appearance: I: clear, colorless liquid
- Odor: Characteristic chlorinated hydrocarbon

IV - FIRE AND EXPLOSION

- Flash Point F: Propellant < 20°F
- Flammable Limits: LEL: for propellant is 1.8
- Extinguishing Media: CO₂, dry chemical, foam.
- Special Fire Fighting Procedures: Water may be ineffective. Water may be used to keep fire exposed containers cool. Use equipment or shielding to protect personnel against bursting or rupturing cans.
- Unusual Fire and Explosion Hazards: Do not spray near open flame. Keep at room temperature as exposure to direct sunlight or other heat may cause bursting.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Do not store above 120°F.
- Incompatibility: None
- Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, hydrogen chloride and phosgene gas.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: Excessive inhalation of vapors can be harmful and may cause headache, dizziness, asphyxia, anesthetic effects and possible unconsciousness. EYES: Mild irritation. SKIN: Possible mild irritation due to defatting of skin. INGESTION: Possible chemical pneumonitis if aspirated into lungs. Nausea.
B. SUBCHRONIC, CHRONIC, OTHER: (Effects due to excessive exposure to the raw materials of the mixtures) May cause elevated carboxyhemoglobin levels, nausea, dizziness and irritation.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove patient to fresh air. Resuscitate if necessary. Get medical attention.
EYES: Flush with water for at least 15 minutes. If irritated, seek medical attention.
SKIN: Possible mild irritation due to defatting of skin.
INGESTION: Do NOT induce vomiting. Drink two large glasses of water. Get immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb with suitable medium. Incinerate or landfill according to local, state or federal regulations. DO NOT FLUSH TO SEWER.
Waste Disposal Methods: Aerosol cans when vented to atmospheric pressure through normal use, pose no disposal hazard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If vapor concentration exceeds TLV, use respirator approved by U. S. Bureau of Mines for organic vapor.
Eye Protection: Safety glasses Gloves: Neoprene gloves recommended
Other Clothing and Equipment: None.
Ventilation: Adequate ventilation to keep vapor concentration below TLV.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not puncture or incinerate containers. Do not store at temperatures above 130 ° F.
Additional Information: Keep away from children. Do not puncture or incinerate. Do not spray near fire or open flame. Deliberate concentration and inhalation of vapors may be harmful or fatal.

NFPA
Health Hazard ..........: 2
Fire Hazard..............: 4
Reactivity ...............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ............: 2
Fire Hazard ...............: 4
Reactivity ................: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Aerosol Zinc Rich Cold Galv
Synonyms: Aerosol Zinc Coating

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rule VMP Naphtha (LEL: 0.9)</td>
<td>64742-89-8</td>
<td>&lt;5</td>
<td>300ppm</td>
<td>500ppm</td>
</tr>
<tr>
<td># Xylene (LEL: 1.1)</td>
<td>1330-20-7</td>
<td>&lt;15</td>
<td>100ppm</td>
<td>100ppm</td>
</tr>
<tr>
<td># Methyl Ethyl Ketone (LEL: 1.0)</td>
<td>78-93-3</td>
<td>&lt;40</td>
<td>200ppm</td>
<td>200ppm</td>
</tr>
<tr>
<td>Propane (LEL: 2.3)</td>
<td>74-98-6</td>
<td>15</td>
<td>1000ppm</td>
<td>1000ppm</td>
</tr>
<tr>
<td># Metallic Zinc Dust</td>
<td>7440-66-6</td>
<td>&lt;45</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372. Aerosol - Contents under pressure 55 +/- 5 psig

VOC Content: 4.46 lbs/gal
All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure: mm Hg:</td>
<td>N/AV</td>
</tr>
<tr>
<td>Evaporation Rate: (ether=1)</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Solubility in H₂O:</td>
<td>N/AV</td>
</tr>
<tr>
<td>Freezing Point °F:</td>
<td>N/AV</td>
</tr>
<tr>
<td>Boiling Point °F:</td>
<td>Propellant &lt;0</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C:</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F:</td>
<td>&gt;1</td>
</tr>
<tr>
<td>VOC Content (% by wt.):</td>
<td>55</td>
</tr>
<tr>
<td>pH @ Solution:</td>
<td>N/AV</td>
</tr>
<tr>
<td>pH as Distributed:</td>
<td>N/AV</td>
</tr>
<tr>
<td>Appearance:</td>
<td>Propellants</td>
</tr>
<tr>
<td>Odor:</td>
<td>Typical</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: Propellant <20°F
Flammable Limits: See Sect. II
Extinguishing Media: Carbon dioxide, dry chemical or foam.
Special Fire Fighting Procedures: Water may be ineffective. Water may be used to keep fire exposed containers cool.
Unusual Fire and Explosion Hazards: Do not spray near open flame. Keep at room temperature as exposure to direct sunlight or other heat may cause bursting.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable. Do not store above 120°F.
Incompatibility: None.
Hazardous Decomposition Products: Carbon monoxide and carbon dioxide released by open flame.
Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES-SKIN-INHALATION & INGESTION: In a confined area, vapors in high concentration are anesthetic. Irritant to skin and upper respiratory system. Overexposure may result in light-headedness, staggering gait, giddiness and possible nausea. Harmful or fatal if swallowed.
B. SUBCHRONIC, CHRONIC, OTHER: Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous system damage, also kidney and liver damage. This product is not considered to be a carcinogen by NTP, IARC or OSHA.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove patient to fresh air.
EYES: Flush with water for at least 15 minutes.
SKIN: Wash with soap and water.
INGESTION: Call a physician immediately. Do NOT induce vomiting.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Remove all sources of ignition. Ventilate, avoid breathing vapors and remove with inert absorbent.
Waste Disposal Methods: Do not incinerate. Dispose of in accordance with federal, state and local regulations regarding pollution.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing vapors or spray mists.
Other Clothing and Equipment: None required.
Ventilation: Local exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 120°F. Keep at room temperature as exposure to direct sunlight or heat may cause bursting.
Additional Information: Keep away from children. Do not puncture or incinerate. Do not spray near fire or open flame.

NFPA
Health Hazard............ : 1
Fire Hazard............. : 2
Reactivity............... : 0
Specific Hazard .......:

HMIS RATING
Health Hazard........... : 1
Fire Hazard ............. : 2
Reactivity............... : 0
Personal Protection.... : X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Alka-Brite
Tel No: (314) 469-7000, (800) 554-5499
Product Number: 4120
CHEMTREC: (800) 424-9300

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide ORAL LD50</td>
<td>1310-73-2</td>
<td>&lt;10</td>
<td>2mg/m3</td>
<td>2mg/m3</td>
</tr>
<tr>
<td>140 mg/kg</td>
<td></td>
<td></td>
<td>(ceiling)</td>
<td>(ceiling)</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: Like Water
- Evaporation Rate: (ether=1) N/AV
- Solubility in H₂O: Complete
- Freezing Point °F: N/AV
- Boiling Point °F: >212°F
- Specific Gravity H₂O=1 @25° C: 1.12
- Vapor Density (Air=1) 60-90° F: Like H₂O
- VOC Content (% by wt.): N/A
- pH @ undiluted Solution: >13
- pH as Distributed: N/A
- Appearance: Pink liquid
- Odor: Slight odor

IV - FIRE AND EXPLOSION

- Flash Point F: Non Flammable
- Flammable Limits: N/A
- Extinguishing Media: Product is non flammable.
- Special Fire Fighting Procedures: None.
- Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

- Stability - Conditions to avoid: None Known.
- Incompatibility: Acids and strong oxidizers.
- Hazardous Decomposition Products: Unknown.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): CORROSIVE TO ALL BODY TISSUE. EYES & SKIN: Causes severe and painful injury. INHALATION: Mists will cause irritation and may damage respiratory tract. INGESTION: Harmful if swallowed. Will upset stomach; may cause nausea, headaches and dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: No available information found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

**INHALATION:** Remove from exposure of mists. Get medical attention.

**EYES:** &

**SKIN:** In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**INGESTION:** If swallowed, DO NOT induce vomiting. Give large quantities of water. Call a physician immediately. Never give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

**Spill Management:** Dike area to contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable absorbing material and place in sealed container.

**Waste Disposal Methods:** Neutralize with 6M-HCL. Flush with plenty of water and dispose of in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

**Respiratory:** NIOSH-approved respirator is recommended if the OSHA air limit for Sodium Hydroxide is exceeded.

**Eye Protection:** Eye goggles or full face shield. **Gloves:** Rubber.

**Other Clothing and Equipment:** Protective clothing.

**Ventilation:** Local and mechanical exhaust.

X - SPECIAL PRECAUTIONS

**Precautions to be taken in Handling and Storing:** Do not get in eyes, on skin or on clothing. Avoid breathing mists. Keep container closed. Wash thoroughly after handling.

**Additional Information:** Use only in well ventilated areas that will maintain air levels below limits established by federal, state and local regulations.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 2</td>
<td>Health Hazard ..........: 2</td>
</tr>
<tr>
<td>Fire Hazard ............: 0</td>
<td>Fire Hazard ............: 0</td>
</tr>
<tr>
<td>Reactivity .............: 0</td>
<td>Reactivity .............: 0</td>
</tr>
<tr>
<td>Specific Hazard .......:</td>
<td>Personal Protection ....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Alka-Brite - Canada
Synonyms: Coil Brightener and Cleaner

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4819

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>&lt;10</td>
<td>2mg/m3</td>
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</tr>
<tr>
<td>ORAL LD50</td>
<td></td>
<td></td>
<td>(ceiling)</td>
<td>(ceiling)</td>
</tr>
<tr>
<td>140 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: Like Water
- Evaporation Rate: (ether=1) N/AV
- Solubility in H₂O: Complete
- Freezing Point °F: N/AV
- Boiling Point °F: >212°F
- Specific Gravity H₂O=1 @25° C: 1.12
- Vapor Density (Air=1) 60-90° F: Like H₂O
- VOC Content (% by wt.): N/A
- pH @ undiluted Solution: >13
- pH as Distributed: N/A
- Appearance: Pink liquid
- Odor: Slight odor

IV - FIRE AND EXPLOSION

- Flash Point F: Non Flammable. Flammable Limits: N/A
- Extinguishing Media: Product is non flammable.
- Special Fire Fighting Procedures: None.
- Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

- Stability - Conditions to avoid: None Known.
- Incompatibility: Acids and strong oxidizers.
- Hazardous Decomposition Products: Unknown.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): CORROSIVE TO ALL BODY TISSUE. EYES & SKIN: Causes severe and painful injury. INHALATION: Mists will cause irritation and may damage respiratory tract. INGESTION: Harmful if swallowed. Will upset stomach; may cause nausea, headaches and dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: No available information found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure of mists. Get medical attention.
EYES: &
SKIN: In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse. Thoroughly clean shoes before reuse.
INGESTION: If swallowed, DO NOT induce vomiting. Give large quantities of water. Call a physician immediately. Never give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area to contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable absorbing material and place in sealed container.
Waste Disposal Methods: Neutralize with 6M-HCL. Flush with plenty of water and dispose of in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH-approved respirator is recommended if the OSHA air limit for Sodium Hydroxide is exceeded.
Eye Protection: Eye goggles or full face shield. Gloves: Rubber.
Other Clothing and Equipment: Protective clothing.
Ventilation: Local and mechanical exhaust.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not get in eyes, on skin or on clothing. Avoid breathing mists. Keep container closed. Wash thoroughly after handling.
Additional Information: Use only in well ventilated areas that will maintain air levels below limits established by federal, state and local regulations.

NFPA
Health Hazard ...........: 2
Fire Hazard.............: 0
Reactivity ..............: 0
Specific Hazard ........:

HMIS RATING
Health Hazard ..........: 2
Fire Hazard ............: 0
Reactivity ..............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Bio-Fresh

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Bio-Fresh
Synonyms: Germicide Cleaner
EPA Regis. No. 1459-101-65516
EPA Est. No. 10208-MO-1

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene Glycol Monomethyl Ether</td>
<td>34590-94-8</td>
<td>&lt;10</td>
<td>100ppm</td>
<td>150ppm</td>
</tr>
<tr>
<td>Alkyl Dimethyl Benzyl Ammonium Chloride</td>
<td>139-07-1</td>
<td>0.3</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

Bio-Fresh contains no Section 313 listed substances subject to reporting.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Not Determined
Evaporation Rate: Same as water
Solubility in H₂O: Complete
Freezing Point °F: 32°F
Boiling Point °F: 212°F
Specific Gravity H₂O=1 @25° C: 1.010
Vapor Density (Air=1) 60-90°F: Not Determined
VOC Content (% by wt.): Not Determined
pH @ Solution: N/A
pH as Distributed: 12.0 +/- 0.5
Appearance: Clear, water white
Odor: Characteristic chemical

IV - FIRE AND EXPLOSION

Flash Point °F: None to boiling
Flammable Limits: N/A N/A
Extinguishing Media: Product is not combustible. Water spray, dry chemical, CO₂
Special Fire Fighting Procedures: Do not enter confined fire-spaces without protective clothing & self-contained air supply
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable.
Incompatibility: Strong acids/oxidizers; do not mix with chlorinated cleaners (bleach).
Hazardous Decomposition Products: Burning may produce CO, CO₂ and unidentified organic compounds.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES; Prolonged or repeated contact of concentrated product will cause irritation and reddening. SKIN: May cause irritation with some individuals. INGESTION: May cause nausea, abdominal discomfort and diarrhea.
B. SUBCHRONIC, CHRONIC, OTHER: None.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.
EYES: Flush eyes with water for at least 15 minutes and call a physician immediately.
SKIN: Wash affected areas with large amounts of soap and water. If irritation persists, call a physician.
INGESTION: DO NOT induce vomiting. Dilute by drinking water. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Safely stop spill at source. Contain spill by dyking with soil or other inert material. Mop, pump or absorb with material and reclaim into sound containers for reuse, recycle or proper disposal. Prevent all spills from entering natural water ways.
Waste Disposal Methods: Dispose of in an approved waste facility according to federal, state and local regulations. See label for specifics.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required under normal use conditions. Avoid misting conditions/spray back.
Eye Protection: Safety glasses goggles. Gloves: Rubber gloves /PVC.
Other Clothing and Equipment: Protective clothing as required to minimize contact during specific operations.
Ventilation: Mechanical.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: No special requirements if product is handled according to good practices. Keep container closed when not in use. Wash thoroughly after handling. Avoid all contact with eyes, skin or clothing. Avoid all contact with foods, feed or water. Observe all label directions as to storage and disposal. Keep out of reach of children.
Additional Information: None

NFPA
Health Hazard ..........: 1
Fire Hazard.............: 0
Reactivity ..............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ............: 1
Fire Hazard ..............: 0
Reactivity ...............: 0
Personal Protection.....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Bio-Fresh cd
Synonyms: Bacteristat-Fungistat
EPA Registration No. 9804-3-65516
EPA Establishment No. 9804-OK-1

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite</td>
<td>7758--19-2</td>
<td>min 0.17</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Chlorine Dioxide*</td>
<td>10049-04-4</td>
<td>Trace</td>
<td>0.1 ppm</td>
<td>0.1 ppm</td>
</tr>
</tbody>
</table>

* SARA 313

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: 23.7 mm Hg (@25°C)
Evaporation Rate: Comparable to water
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: 213°F
Specific Gravity H₂O=1 @25° C: 1.01

Vapor Density (Air=1) 60-90° F: .02 Kg/m³
VOC Content (% by wt.): <0.01%
pH as Distributed: 7.5-9.0
Odor: Faint chlorinous odor

IV - FIRE AND EXPLOSION

Flash Point °F: None to boiling point Flammable Limits: N/A
Extinguishing Media: Water unless contraindicated by other material involved in fire
Special Fire Fighting Procedures: Do not allow product solutions to evaporate to dryness.
Unusual Fire and Explosion Hazards: The sodium chlorite in dried Bio-fresh cd is a strong oxidizer, which supports combustion.

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable - Avoid storing product under conditions in which it could evaporate to crystalline salt.
Incompatibility: Avoid accidental contact with acids, chlorine compounds, hypochlorites (bleach), sulfur and silfite compounds, phosphorous, organic solvents and combustible/flammable materials.
Hazardous Decomposition Products: Exposure to acids or chlorine compounds can produce chlorine dioxide gas.
Conditions Contributing to Hazardous Polymerizations: Does not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure):

INGESTION: Rat oral LD50=4360 mg/Kg. May produce gastric discomfort, nausea, vomiting and diarrhea. Ingestion of large quantities may produce methemoglobinemia. EYES: Based upon rabbit studies, product has an EPA Category III rating as a mild irritant. Exposure can produce slight irritation of conjunctiva, cornea and eyelid. SKIN: Based upon rabbit studies, product is listed as 'practically not an irritant'. Prolonged exposure may produce localized irritation, contact dermatitis, mild erythema and edema. Skin absorption is highly unlikely in toxic amounts (Rabbit Acute Dermal LD50>2020 mg/Kg.). INHALATION: Acute Inhalation: LC50> 5.61 mg/L. Prolonged inhalation of fog or mist containing product may be irritating to nose and throat.

B. SUBCHRONIC, CHRONIC, OTHER:

May cause localized irritation to areas exposed to product. Over exposure to chlorine dioxide from activation can produce coughing, sore throat, headache and dizziness.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

Skin disorder, such as dermal allergies and dermatitis.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Unactivated product normally has no respiratory effects. If exposure to chlorine dioxide produced from activation occurs, remove victim to fresh air. Contact a physician if respiratory distress continues.

EYES: Flush eyes thoroughly with water, making certain eyelids are held open. If irritation or burning persist, seek medical attention.

SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and rinse thoroughly with water before laundering, or discard. If irritation occurs, seek medical attention.

INGESTION: DO NOT INDUCE VOMITING. Contact a physician or Poison Control Center immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Small spills, involving less than 10 gallons, may be flushed to a designated and permitted sewer system with copious amounts of water. Do not discharge this product to storm drains or to any surface or groundwater source unless specifically allowed under a valid NPDES permit.

Waste Disposal Methods: Small quantities, less than 10 gallons, may be flushed to an authorized and permitted sewer with copious amounts of water. Large quantities should be taken to an authorized disposal site.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: In accordance with OSHA regulations (29 CFR 1910.143 & 29 CFR 1910.1000), fogging or spraying applications may require worker respiratory protection such as NIOSH approved air-purifying respirators.


Other Clothing and Equipment: Follow label instructions.

Ventilation: Open air or good room ventilation is normally adequate for safe use of the product.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Store in a cool, dry, well-ventilated location away from acids, chlorine compounds (bleach), oxidizers and direct sunlight. Keep containers tightly closed when not in use and open carefully to prevent spillage.

Additional Information: None
<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 1</td>
<td>Health Hazard ............: 1</td>
</tr>
<tr>
<td>Fire Hazard .............: 0</td>
<td>Fire Hazard ...............: 0</td>
</tr>
<tr>
<td>Reactivity ...............: 1</td>
<td>Reactivity ................: 1</td>
</tr>
<tr>
<td>Specific Hazard ..........:</td>
<td>Personal Protection.... : X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Burst-Kontr'l AP
Synonyms: Propylene Glycol Heat Transfer Fluid

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene Glycol</td>
<td>57-55-6</td>
<td>40 - 50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dibasic Acid</td>
<td>72162-23-3</td>
<td>&lt;1%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: 0.1
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: Complete
Freezing Point °F: -10°F
Boiling Point °F: 360°F
Specific Gravity H₂O=1 @25° C: 1.04

Vapor Density (Air=1) 60-90° F: 2.6
VOC Content (% by wt.): slightly volatile
pH @ Solution: N/A
pH as Distributed:
Appearance: Light blue liquid slightly vis.
Odor: Near odorless

IV - FIRE AND EXPLOSION

Flash Point F: 211°F Flammable Limits: (%vol. in air) -17.4
Extinguishing Media: CO₂, Dry chemical, Alcohol type foam
Special Fire Fighting Procedures: Do not enter fire area without proper protection. See "decomposition products possible." Fight fire from safe distance/protected location. Heat may build pressure/rupture closed containers. Spreading fire. Increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although soluble, may not be practical to extinguish fire by water dilution. Notify authorities if liquid enters sewer/public water.
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable; avoid high temperatures and severe oxidizing conditions
Incompatibility: Strong oxidizing agents.
Hazardous Decomposition Products: Incomplete combustion may produce carbon monoxide and other harmful gases/vapors.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): Slight eye irritant. No inhalation hazard identified from data. No skin absorption hazard identified from data. No skin irritation identified from data. No ingestion hazard identified from data.
B. SUBCHRONIC, CHRONIC, OTHER: No chronic health effects are expected from normal use.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: N/A
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush with water for 20-30 minutes, Retract eyelids open. Obtain medical attention if pain, blinking, tears or redness persist.
SKIN: Not expected to present a significant skin hazard under anticipated conditions of normal use.
INGESTION: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

VIII - SPILL OR LEAK PROCEDURE


IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None when used with adequate ventilation.
Eye Protection: Safety glasses Gloves: Recommended
Other Clothing and Equipment: None required.
Ventilation: Use with adequate ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Hygroscopic, use dry nitrogen or low dew point air for tank padding. Keep drums tightly closed to prevent contamination. Store at 65-90°F.
Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard...........: 1</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard ............: 0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity.............: 0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection.... : X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet  
C-3 Refrigeration Oil

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Tel No: (314) 469-7000, (800) 554-5499  
Product Name: C-3 Refrigeration Oil  
Product Number: 4303  
CHEMTREC: (800) 424-9300  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Tel No: (314) 469-7000, (800) 554-5499  
Product Name: C-3 Refrigeration Oil  
Product Number: 4303  
CHEMTREC: (800) 424-9300

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oil</td>
<td>64742-44-5</td>
<td>100</td>
<td>5mg/m3</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Refined and Treated Naphthenic Oils - 100%

VOC Content: 9.6%, 0.72 lbs/gal (0.086mg/L)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: <0.0001
Evaporation Rate: (ether=1): N/AV
Solubility in H₂O: Nil
Freezing Point °F: N/AV
Boiling Point °F: >212°F
Specific Gravity H₂O=1 @25° C: 0.92

Vapor Density (Air=1) 60-90° F: 10
VOC Content (% by wt.): 100
pH @ N/A Solution: N/A
pH as Distributed: N/A
Appearance: Colorless liquid
Odor: Little odor

IV - FIRE AND EXPLOSION

Flash Point °F: 330°F  
COC Flammable Limits: N/A
Extinguishing Media: Water fog, chemical foam, dry chemical CO₂.
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.

Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: None known.
Incompatibility: Strong Oxidizers.
Hazardous Decomposition Products: Exposure to high temperature can produce carbon monoxide.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: May cause reversible eye and skin irritation. INGESTION: This product is practically non-toxic. The acute ORAL LD50 (rats) is >15g/kg.
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.
SKIN: N/A
INGESTION: N/A. Good First Aid should be followed in all cases of exposure.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dispose of in accordance with federal, state and local regulations. Dike area to contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in sealed metal container for disposal.
Waste Disposal Methods: Mix with a flammable solvent and incinerate in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Safety glasses
Gloves: Not required
Other Clothing and Equipment: Not required.
Ventilation: Local exhaust.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep container closed. Exercise caution in the storage and handling of all chemical substances.
Additional Information: This product is severely hydrotreated, and severely hydrotreated naphthenic petroleum oil has not been found to be carcinogenic nor a potential carcinogen. This product is not listed as a carcinogen or a potential carcinogen by the National Toxicology Program, by the IARC monographs or by OSHA.

NFPA
Health Hazard...............: 0
Fire Hazard...............: 1
Reactivity ..................: 0
Specific Hazard ..........: 0

HMIS RATING
Health Hazard...............: 0
Fire Hazard................: 1
Reactivity..................: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
C-4 Refrigeration Oil

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: C-4 Refrigeration Oil
Synonyms: Refined Hydrotreated Naphthenic Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Oils</td>
<td>64742-44-5</td>
<td>100</td>
<td>5mg/m3</td>
<td>N/A</td>
</tr>
</tbody>
</table>

VOC Content: 9.3%; 0.70 lbs/gal (0.084 mg/L)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg:<0.0001 @ 20°C
Evaporation Rate: (ether=1): 1000x slower vs eth
Solubility in H₂O: Nil
Freezing Point °F: N/AV
Boiling Point °F: > 500°F (IBP)
Specific Gravity H₂O=1 @25° C: 0.9

IV - FIRE AND EXPLOSION

Flash Point F: >350°F COC Flammable Limits: N/A
Extinguishing Media: Water fog, chemical foam, dry chemical CO₂.
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: None known
Incompatibility: Strong oxidizers.
Hazardous Decomposition Products: Exposure to high temperature can produce carbon monoxide.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

ACTIONS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: May cause reversible eye and skin irritation.
INGESTION: This product is practically non-toxic through ingestion. The acute ORAL LD50 (rats) is >30g/kg.
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.
SKIN: N/A
INGESTION: N/A. Good First Aid should be followed in all cases of exposure.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dispose of in accordance with federal, state and local regulations. Dike area to contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in sealed metal container for disposal.

Waste Disposal Methods: Mix with a flammable solvent and incinerate in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Safety glasses
Gloves: Not required
Other Clothing and Equipment: Not required
Ventilation: Local exhaust.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep container closed.
Exercise caution in the storage and handling of all chemical substances.
Additional Information: Read and observe any label precautions.

NFPA
Health Hazard ............: 0
Fire Hazard ...............: 1
Reactivity ................: 0
Specific Hazard .........:

HMIS RATING
Health Hazard ............: 0
Fire Hazard ...............: 1
Reactivity ...............: 0
Personal Protection ....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: C-5 Refrigeration Oil  
Synonyms: Refined Naphthenic Oil  

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
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<tbody>
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<td>64742-44-5</td>
<td>100</td>
<td>5mg/m3</td>
<td>N/A</td>
</tr>
</tbody>
</table>

VOC Content: 2.0%; 0.15 lbs/gal (0.018 mg/L)  
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: <0.0001  
Evaporation Rate: (ether=1): N/AV  
Solubility in H₂O: Nil  
Freezing Point °F: N/AV  
Boiling Point °F: 212°F  
Specific Gravity H₂O=1 @25° C: 0.93  
Vapor Density (Air=1) 60-90° F: 20  
VOC Content (% by wt.): 100  
pH @ N/A Solution: N/A  
pH as Distributed: N/A  
Appearance: Colorless liquid  
Odor: Little odor

IV - FIRE AND EXPLOSION

Flash Point °F: 340°F  
COC Flammable Limits: N/A  
Extinguishing Media: Water fog, chemical foam, dry chemical CO₂.  
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.  
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: None known  
Incompatibility: Strong oxidizers.  
Hazardous Decomposition Products: Exposure to high temperature can produce carbon monoxide.  
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES & SKIN: May cause reversible eye and skin irritation.  
INGESTION: This product is practically non-toxic through ingestion. The acute ORAL LD₅₀ (rats) is >30g/kg.  
B. SUBCHRONIC, CHRONIC, OTHER: None known  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A  
EYES: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.  
SKIN: N/A  
INGESTION: N/A. Good First Aid should be followed in all cases of exposure.
**VIII - SPILL OR LEAK PROCEDURE**

**Spill Management:** Dispose of in accordance with federal, state and local regulations. Dike area to contain as much spilled material as possible. Remove any remaining material by absorbing with vermiculite or other suitable material and place in sealed metal container for disposal.

**Waste Disposal Methods:** Mix with a flammable solvent and incinerate in accordance with federal, state and local regulations.

**IX - PROTECTION INFORMATION/CONTROL MEASURES**

**Respiratory:** Not required

**Eye Protection:** Safety glasses **Gloves:** Not required

**Other Clothing and Equipment:** Not required

**Ventilation:** Local exhaust

**X - SPECIAL PRECAUTIONS**

**Precautions to be taken in Handling and Storing:** Wash thoroughly after handling. Keep container closed. Exercise caution in the storage and handling of all chemical substances.

**Additional Information:** Read and observe any label precautions.

**NFPA**

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Hazard</td>
<td>1</td>
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<tr>
<td>Reactivity</td>
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<tr>
<td>Specific Hazard</td>
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**HMIS RATING**

<table>
<thead>
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<th>Health Hazard</th>
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<tbody>
<tr>
<td>Fire Hazard</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

**Personal Protection:** X (Sec. 9)

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Cal-Blue
Synonyms: Bubble-forming Liquid

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4182

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol (ORAL LD50 8.5mg/kg rat)</td>
<td>107-21-1</td>
<td>&lt;40</td>
<td>50ppm ceiling (vapor)</td>
<td>NE</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.
VOC Content: none
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Unknown
Evaporation Rate: Unknown
Solubility in H₂O: Complete
Freezing Point °F: 5°F
Boiling Point °F: >212°F
Specific Gravity H₂O=1 @25° C: 1.085

Vapor Density (Air=1) 60-90° F: Unknown
VOC Content (% by wt.): Approx 85
pH @ Solution: N/A
pH as Distributed: 7.3-7.6
Appearance: Clear blue liquid
Odor: Mild Chemical odor

IV - FIRE AND EXPLOSION

Flash Point F: None to boiling Flammable Limits: Unknown
Extinguishing Media: Product is not combustible. In case of fire use CO₂, foam or dry chemical.
Special Fire Fighting Procedures: Exercise caution when fighting any chemical dry fire. Respiratory protection is essential.
Unusual Fire and Explosion Hazards: None known

V - REACTIVITY DATA

Stability - Conditions to avoid: Heat and open flame
Incompatibility: Can react violently with strong oxidizers, dehydrating agents such as sulfuric acid, acetic anhydride.
Hazardous Decomposition Products: Carbon monoxide.
Conditions Contributing to Hazardous Polymerizations: None known
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   EYES: May cause eye irritation. (Primary Route of Exposure)
   SKIN: Essentially non-irritating.
   INGESTION: Harmful if swallowed. May cause nausea, dizziness, central nervous system damage, kidney disorders.
   INHALATION: Prolonged or repeated breathing of vapors may cause headache, nausea, dizziness.
B. SUBCHRONIC, CHRONIC, OTHER:
   Repeated or prolonged inhalation of vapors may cause nervous system damage. Repeated contact with skin may cause sensitization in some individuals. Ethylene glycol has caused birth defects in laboratory animals.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
   Preexisting kidney disorders, lung disorders

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air
EYES: Flush with plenty of water for at least 15 minutes. If irritation persists, call a physician.
SKIN: Wash area with soap and plenty of water.
INGESTION: If swallowed, call a physician immediately. Give one or two glasses of water and induce vomiting by sticking finger down throat. Never give anything by mouth or attempt to induce vomiting in an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Flush spill with water or wipe up and incinerate.
Waste Disposal Methods: Incinerate or flush to drain served by sanitary sewer in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not normally required
Eye Protection: Avoid eye contact
Gloves: None required
Other Clothing and Equipment: None required
Ventilation: Vapors are minimal at room temperatures. Normal room ventilation should be sufficient.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Avoid breathing mists or vapors. Wash thoroughly after handling.
Additional Information: Keep out of reach of children. Read and observe all labeled precautions.

NFPA
Health Hazard ..........: 2
Fire Hazard ............: 0
Reactivity .............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 2
Fire Hazard ..........: 0
Reactivity ..........: 0
Personal Protection ....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Alton Court, St. Louis, MO 63146-4151  
Product Name: Cal-Blue LT  
Synonyms: Low Temp Gas Leak Detector  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4183

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>ORAL LD50 8.5mg/kg rat</td>
<td>30-50</td>
<td>50ppm ceiling</td>
<td>N/E</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A  
Evaporation Rate: Similar to water  
Solubility in H₂O: Complete  
Freezing Point °F: -20°F  
Boiling Point °F: 212°F  
Specific Gravity H₂O=1 @25° C:  
Vapor Density (Air=1) 60-90° F: N/A  
VOC Content (% by wt.): N/A  
pH @ Solution: N/A  
pH as Distributed: 7.0-8.0  
Appearance: Clear, blue viscous liquid  
Odor: Mild

IV - FIRE AND EXPLOSION

Flash Point F: None to boiling  
Extinguishing Media: Product is not combustible. In case of fire use CO₂, foam or dry chemical.  
Special Fire Fighting Procedures: Do not enter confined air spaces without protective clothing and self-contained air supply  
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable  
Incompatibility: Can react violently with strong oxidizers, dehydrating agents such as sulfuric acid, acetic anhydride.  
Hazardous Decomposition Products: Burning can produce oxides of carbon.  
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES: May cause eye irritation. (Primary Route of Exposure) SKIN: May cause irritation, reddening, drying or cracking of skin. INGESTION: Ethylene glycol in product is toxic. Harmful if swallowed. May cause nausea, dizziness, central nervous system damage, cardiopulmonary effects and possible kidney damage, coma and convulsions. INHALATION: Prolonged or repeated breathing of vapors may cause headache, nausea, dizziness.  
B. SUBCHRONIC, CHRONIC, OTHER: Ethylene glycol has caused birth defects in laboratory animals.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Preexisting kidney disorders, lung disorders
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.
EYES: Flush with plenty of water for at least 15 minutes and call a physician.
SKIN: Wash area with soap and plenty of water. If irritation develops, call a physician.
INGESTION: If swallowed, call a physician immediately. Give one or two glasses of water and induce vomiting by sticking finger down throat. Never give anything by mouth or attempt to induce vomiting in an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Safely stop spill at source. Contain spill by dyking with soil or other inert material and reclaim into sound container for proper disposal.
Waste Disposal Methods: Dispose of in an approved waste facility in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required under normal use conditions. Use with adequate ventilation.
Eye Protection: Safety glasses or goggles Gloves: Not required
Other Clothing and Equipment: Not required under normal use conditions.
Ventilation: Mechanical

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Keep container closed when not in use (turn spray nozzle to "off" position). Avoid contact with eyes, skin and clothing. Avoid breathing mists or vapors. Wash thoroughly after handling.
Additional Information: Keep out of reach of children. Read and observe all labeled precautions.

NFPA
Health Hazard.........: 2
Fire Hazard............: 0
Reactivity...............: 0
Specific Hazard.......:

HMIS RATING
Health Hazard.........: 2
Fire Hazard............: 0
Reactivity...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Cal-Brite  
Synonyms: Coil cleaner

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium Bifluoride</td>
<td>1341-49-7</td>
<td>2-20 %</td>
<td>2.5mg/m*</td>
<td>2.5mg/m*</td>
</tr>
<tr>
<td>Glycolic Acid</td>
<td>79-14-1</td>
<td>2-15 %</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>C11 alcohol ethoxylate</td>
<td>68439-46-3</td>
<td>2-10 %</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*mg/cubic meter  
All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: N/A  
- Evaporation Rate: N/A  
- Solubility in H₂O: Complete  
- Freezing Point °F: 32°  
- Boiling Point °F: 212°  
- Specific Gravity H₂O=1 @25° C: 1.01

- Vapor Density (Air=1) 60-90° F: N/A  
- VOC Content (% by wt.): N/A  
- pH @ Solution: N/A  
- pH as Distributed: 4-5  
- Appearance: Clear liquid  
- Odor: Alcohol

IV - FIRE AND EXPLOSION

- Flash Point F: None to boiling  
- Flammable Limits: Non-flammable  
- Extinguishing Media: Use media appropriate for surrounding material  
- Special Fire Fighting Procedures: None  
- Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable at normal temperatures and storage conditions  
- Incompatibility: None  
- Hazardous Decomposition Products: Decomposition will not occur  
- Conditions Contributing to Hazardous Polymerizations: Polymerization will not occur
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   SKIN: May cause skin irritation with discomfort or rash or skin burns or ulceration.
   EYES: May cause eye irritation with discomfort, tearing, or blurring of vision; or eye corrosion with cornea or conjunctival ulceration.
   INHALATION: May cause irritation of the upper respiratory passages with coughing and discomfort; or temporary nervous system depression with anaesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness. Inhalation of ammonium bifluoride may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Chronic exposure to fluoride may cause fluorosis with weight loss, anemia, weakness, general ill health, stiffness of joints. INGESTION: May cause upper gastrointestinal irritation or corrosion of mucous membranes with stomach discomfort, nausea and prostration or abnormal liver function as detected by laboratory tests. Fatality may occur from gross overexposure.
B. SUBCHRONIC, CHRONIC, OTHER:
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhaled, immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse.
INGESTION: If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician. Notes to Physicians: Activated charcoal mixture may be beneficial. Suspend 50 g activated charcoal in 400 ml water and mix well. Administer 5 ml/gh, or 350 ml for an average adult.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Safeguards (Personnel) NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONNEL PROTECTIVE EQUIPMENT during clean-up. Spill Clean Up: Soak up with dry or other absorbent material.
Waste Disposal Methods: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Providence, and Local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH/MSHA approved protection, as appropriate.
Eye Protection: Goggles
Gloves: Rubber gloves
Other Clothing and Equipment: Wear appropriate, impervious clothing to prevent contact (gloves, apron, pants, jacket, hood, boots) or full acid suit with hood, boots and gloves. (Neoprene gloves suggested).
Ventilation: Use only with adequate ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not breathe vapor or mist. Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Wash clothing after use.
Additional Information: Keep container tightly closed.
NFPA
Health Hazard ...........: 1
Fire Hazard...............: 0
Reactivity .................: 0
Specific Hazard ..........:

HMIS RATING
Health Hazard ............: 1
Fire Hazard ..............: 0
Reactivity ...............: 0
Personal Protection.....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Calci-Solve

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Calci-Solve
Synonyms: Acid-based pipe and drain cleaner

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4134

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid**</td>
<td>7647-01-0</td>
<td>&gt;30</td>
<td>5ppm*</td>
<td>N/A</td>
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<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&lt;70</td>
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<tr>
<td>Acid Inhibitor (proprietary)</td>
<td></td>
<td>&lt;1</td>
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</tr>
</tbody>
</table>

*Ceiling
**Reportable for SARA Title III, S.313 (Form R)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: 39 mm (Hg)
Evaporation Rate: N/A
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: Est. 180°F
Specific Gravity H₂O=1 @25° C: 1.16

Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.): N/A
pH @ Solution: N/A
pH as Distributed: <1
Appearance: Red liquid
Odor: Muriatic acid.

IV - FIRE AND EXPLOSION

Flash Point F: None to boiling
Flammable Limits: Non flammable
Extinguishing Media: Product is not flammable
Special Fire Fighting Procedures: Avoid skin and eye contact, and breathing of acid vapors. Wear head and body protection and HCl respirator if exposure to liquid is likely
Unusual Fire and Explosion Hazards: NOTE: This product can react with metals to release hydrogen gas. Firemen may need to protect against this.

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable
Incompatibility: Strong alkalis, materials not resistant to strong acids, active metals (zinc, aluminum, magnesium, etc.).
Hazardous Decomposition Products: Hydrogen chloride vapors. Contact with active metals can release flammable gas.
Conditions Contributing to Hazardous Polymerizations: Does not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   EYES: Corrosive. Causes eye damage. SKIN: Corrosive to tissues. Causes irritation and burns. INGESTION: Harmful if swallowed. Burns to mouth, throat, esophagus and stomach are likely. INHALATION: Breathing of vapor can cause respiratory irritation and inflammation. Breathing of mists or liquid may cause coughing and burning.
B. SUBCHRONIC, CHRONIC, OTHER:
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Over exposure to product has the following effects: inhalation of vapors may cause pulmonary edema, collapse of circulatory system and damage to the upper respiratory system and collapse. Inhalation may cause coughing, throat burning, choking, bronchitis, and difficult breathing. Ingestion is harmful and may be fatal. Ingestion may cause burns.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Give artificial respiration or oxygen if needed, and contact a physician. EYES: Wear splash-proof goggles. Provide convenient eyewash stations. Flush immediately for 15 minutes. Get immediate medical attention. SKIN: In case of contact, immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, get medical attention. Wash clothing before reuse. INGESTION: If swallowed, DO NOT induce vomiting. Give large quantities of water or milk. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Small spills can be flushed into normal drainage or into ground with copious amounts of water, or taken up with absorbent material. For large spills, dike area and contain as much spilled material as possible, absorbing with soda ash or sodium bicarbonate. Flush with water or absorb for collection and proper disposal. Personnel should use skin, eye and respiratory protection. Waste Disposal Methods: If neutralized, may be disposed in sewers if local regulations permit. Otherwise, send to licensed treatment and disposal facility. As supplied, this product is a RCRA hazardous waste.

IX - PROTECTION INFORMATION/CONTROL MEASURES


X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not get in eyes, on skin or clothing. Avoid breathing vapor or mist. Keep container closed. Wash thoroughly after handling. Keep from contact with chlorine bleaches. Check containers daily for leaks. Have water hoses and alkaline material (soda ash) convenient. Only use containers and equipment designed for acid service. Additional Information: Areas of use and storage should be ventilated adequately to reduce vapors below odor level. Empty containers should be rinsed well before handling and disposal.
<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ........</td>
<td>Health Hazard ...............</td>
</tr>
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<tr>
<td>Fire Hazard ..........</td>
<td>Fire Hazard .................</td>
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<tr>
<td>Reactivity ..........</td>
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<tr>
<td>Specific Hazard ......</td>
<td>Personal Protection .......</td>
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<td></td>
<td>X (Sec. 9)</td>
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</table>

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: CalClean - Canada
Synonyms: Detergent coil cleaner
Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4821

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>&lt;5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: like water
Evaporation Rate: (ether=1) N/AV
Solubility in H₂O: Complete
Freezing Point °F: N/AV.
Boiling Point °F: >212°
Specific Gravity H₂O=1 @25° C: 1.085

Vapor Density (Air=1) 60-90° F: Like H₂O.
VOC Content (% by wt.): N/A
pH @ undiluted Solution: 13.1
pH as Distributed: N/A
Appearance: Fluorescent green
Odor: Lightly perfumed

IV - FIRE AND EXPLOSION

Flash Point F: Not Flammable
Flammable Limits: Not Applicable
Extinguishing Media: Product is not flammable.
Special Fire Fighting Procedures: None.
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: None known.
Incompatibility: Strong acids.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: May cause severe irritation and pain with redness and swelling of conjunctiva. May injure eye tissue if not promptly removed. SKIN: May be irritating to skin and prolonged contact may cause dematitis. INGESTION: May cause moderate to severe irritation of mouth, throat and stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If mists of product are inhaled, remove to fresh air. If irritation develops or persists, call a physician.
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.
INGESTION: Drink plenty of water and call a physician.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area to contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in sealed container for disposal.

Waste Disposal Methods: Flush with plenty of water. Dispose of in accordance with local, state and federal regulations

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Eye goggles or safety glasses Gloves: Rubber gloves
Other Clothing and Equipment: Not required.
Ventilation: Normal

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling.
Additional Information: Read and observe all label precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

NFPA Health Hazard: 1
NFPA Fire Hazard: 0
NFPA Reactivity: 0
NFPA Specific Hazard: X

Revision Date: 8/6/2004

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Material Safety Data Sheet
CalClean HD-Rtu

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: CalClean HD-Rtu
Synonyms: Ready-to-use Coil Cleaner

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>&lt;1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>&lt;1</td>
<td>2mg/m3</td>
<td>2mg/m3</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: (mm Hg) Like Water
- Evaporation Rate: N/A
- Solubility in H₂O: Complete
- Freezing Point °F: N/A
- Boiling Point °F: 212°F
- Specific Gravity H₂O=1 @25° C: 1.011
- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.): N/A
- pH @ 1% Solution: 12.0
- pH as Distributed: 13.0
- Appearance: Fluorescent green liquid
- Odor: Very Lightly perfumed

IV - FIRE AND EXPLOSION

- Flash Point F: Not Flammable
- Flammable Limits: N/A
- Extinguishing Media: Product is not flammable. Use water to cool source of fire.
- Special Fire Fighting Procedures: For any chemical fire, use self-contained breathing apparatus and impervious clothing.
- Unusual Fire and Explosion Hazards: None Known

V - REACTIVITY DATA

- Stability - Conditions to avoid: Product is stable in normal use.
- Incompatibility: Strong acids and oxidizers.
- Hazardous Decomposition Products: None Known
- Conditions Contributing to Hazardous Polymerizations: None Known

VI - HEALTH HAZARD DATA

A. ACUTE (Primary Route of Exposure):
   - EYES & SKIN: Concentrate will burn and irritate both eyes and skin.
   - INGESTION: Concentrate may burn or severely irritate mouth, esophagus and stomach.

B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: No available information was found.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call physician.
INGESTION: Drink plenty of water. Do NOT induce vomiting. Contact a physician.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area, contain as much spilled material possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in a sealed metal container for disposal.

Waste Disposal Methods: Flush with plenty of water. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Goggles or safety glasses Gloves: Rubber gloves
Other Clothing and Equipment: Not required
Ventilation: Normal

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling.
Additional Information: Read and observe all labeled precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
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</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: CalClean, Special HD
Synonyms: Detergent

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>3</td>
<td>2mg/m3</td>
<td>2mg/m3</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Like Water
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: > 212°
Specific Gravity H₂O=1 @25° C: 1.085

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable
Flammable Limits: N/A
Extinguishing Media: Product is not flammable. Use water to cool source of fire.
Special Fire Fighting Procedures: For any chemical fire, use self-contained breathing apparatus and impervious clothing.
Unusual Fire and Explosion Hazards: None Known

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable in normal use.
Incompatibility: Strong acids and oxidizers.
Hazardous Decomposition Products: Unknown
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Concentrate will burn and irritate both eyes and skin.
    INGESTION: Concentrate may burn or severely irritate mouth, esophagus and stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call physician.
INGESTION: Drink plenty of water. Do NOT induce vomiting. Contact a physician.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area, contain as much spilled material possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in a sealed metal container for disposal.

Waste Disposal Methods: Flush with plenty of water. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Goggles or safety glasses Gloves: Rubber gloves
Other Clothing and Equipment: Not required.
Ventilation: Normal

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling.

Additional Information: Read and observe all labeled precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard...</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard......</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity........</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

Health Hazard: 2
Fire Hazard: 0
Reactivity: 0
Specific Hazard: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Alton Court, St. Louis, MO 63146-4151  
Product Name: CalClean, Special HD - Canada  
Synonyms: Detergent  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4823

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>5</td>
<td>N/A</td>
<td>2mg/m3 (ceiling)</td>
</tr>
<tr>
<td>Potassium Hydroxide</td>
<td>1310-58-3</td>
<td>3</td>
<td>2mg/m3 (ceiling)</td>
<td>2mg/m3 (ceiling)</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Like Water  
Evaporation Rate: (ether=1): N/A  
Solubility in H₂O: Complete  
Freezing Point °F: N/A  
Boiling Point °F: > 212°  
Specific Gravity H₂O=1 @25° C: 1.085 

Vapor Density (Air=1) 60-90° F: Like H₂O  
VOC Content (% by wt.): N/A  
PpH @ Solution: N/A  
pH as Distributed: (undiluted) 13.1  
Appearance: Fluorescent green liquid  
Odor: Lightly perfumed odor

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable  
Flammable Limits: N/A  
Extinguishing Media: Product is not flammable. Use water to cool source of fire.  
Special Fire Fighting Procedures: For any chemical fire, use self-contained breathing apparatus and impervious clothing.  
Unusual Fire and Explosion Hazards: None Known

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable in normal use.  
Incompatibility: Strong acids and oxidizers.  
Hazardous Decomposition Products: Unknown  
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Concentrate will burn and irritate both eyes and skin.  
INGESTION: Concentrate may burn or severely irritate mouth, esophagus and stomach.  
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A  
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.  
SKIN: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call physician.  
INGESTION: Drink plenty of water. Do NOT induce vomiting. Contact a physician.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area, contain as much spilled material possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in a sealed metal container for disposal.

Waste Disposal Methods: Flush with plenty of water. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Goggles or safety glasses
Gloves: Rubber gloves
Other Clothing and Equipment: Not required.
Ventilation: Normal

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling.

Additional Information: Read and observe all labeled precautions.

NFPA
Health Hazard .........: 2
Fire Hazard ..........: 0
Reactivity ............: 0
Specific Hazard ......:

HMIS RATING
Health Hazard ..........: 2
Fire Hazard ..........: 0
Reactivity ............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Cal-Shield
Synonyms: Teflon-based coil protectant

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4148

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telomer B Phosphate (DEA Salt, 1:1:2)</td>
<td>65530-63-4</td>
<td>1-10 %</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Telomer B Phosphate (DEA Salt, 2:1:1)</td>
<td>65530-64-5</td>
<td>1-10 %</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Telomer B Phosphate (DEA Salt, 1:1:1)</td>
<td>65530-74-7</td>
<td>1-5 %</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Telomer B Phosphate (DEA Salt, 2:1:1)</td>
<td>67-30-0</td>
<td>1-5 %</td>
<td>400 ppm*</td>
<td>400 ppm*</td>
</tr>
</tbody>
</table>

*These PEL and TLV values are equivalent to 980 mg/cubic meter.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A
Evaporation Rate: N/A
Solubility in H₂O: Partial
Freezing Point °F: 32°
Boiling Point °F: 212°
Specific Gravity H₂O=1 @25° C: 1.01
Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.): N/A
pH @ Solution: N/A
pH as Distributed: 7.0
Appearance: Clear liquid
Odor: Alcohol

IV - FIRE AND EXPLOSION

Flash Point °F: None to boiling
Flammable Limits: Non-flammable
Extinguishing Media: Use media appropriate for surrounding material
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable at normal temperatures and storage conditions
Incompatibility: None
Hazardous Decomposition Products: Decomposition will not occur
Conditions Contributing to Hazardous Polymerizations: Polymerization will not occur
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):

SKIN: May cause skin irritation with discomfort or rash. There are rare inconclusive reports of human sensitization to isopropyl alcohol. EYES: May cause eye irritation with discomfort, tearing, or blurring of vision. INHALATION: May cause irritation of the upper respiratory passages, with coughing and discomfort. INGESTION: May cause gastrointestinal irritation with upper abdominal pain, vomiting, and diarrhea. However, there may be no symptoms at all. Inhalation, ingestion, or skin contact may cause nonspecific discomfort, such as nausea, headache, abdominal pain, flushing of the face, hypotension, or weakness.

B. SUBCHRONIC, CHRONIC, OTHER: Higher exposures may lead to temporary nervous system depression with anaesthetic effects such as dizziness, headache, confusion, incoordination, and loss of consciousness.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
EYES: In case of contact, immediately flush with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, immediately wash skin with soap and water. Wash contaminated clothing before reuse.
INGESTION: If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Safeguards (Personnel) NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up. Spill Clean Up: Soak up with sawdust, sand, oil dry or other absorbent material.

Waste Disposal Methods: Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: OUTDOORS:When applying outdoors, no respiratory protection is required. INDOORS: When applying indoors, respiratory protection is required if application takes place in a closed, sealed or non-ventilated area. Recommended respirator is NIOSH/MSHA carbon-type for organic vapor removal and particulate removal.
EYE Protection: Goggles
Gloves:
Other Clothing and Equipment: Where there is potential for skin contact have available, and wear as appropriate, impervious gloves, apron, pants, and jacket.
Ventilation: Apply with standard manual "pump-up" sprayer. Use with adequate ventilation, and follow above respiratory guidelines.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid breathing vapors or mist. Avoid contact with eyes skin or clothing. Wash thoroughly after handling. Wash clothing after use.
Additional Information: Keep container tightly closed.

NFPA
Health Hazard ..........: 0
Fire Hazard ............: 0
Reactivity .............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 0
Fire Hazard ............: 0
Reactivity .............: 0
Personal Protection ....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Cal-Treat 233  
Synonyms: Aqueous Cooling Tower Treatment  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4149

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td># Zinc Nitrate</td>
<td>7779-88-6</td>
<td>&lt;5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sodium Molybdate</td>
<td>7631-95-0</td>
<td>&lt;5</td>
<td>5mg/m3</td>
<td>5mg/m3</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.  
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A  
Evaporation Rate: (ether=1) N/A  
Solubility in H₂O: Complete  
Freezing Point °F: @20°C  
Boiling Point °F: 212 @14.7 psig  
Specific Gravity H₂O=1 @25°C C: 1.095  
Vapor Density (Air=1) 60-90° F: N/A  
VOC Content (% by wt.): 87% @105°C/2 hrs  
pH @ Solution: N/A  
pH as Distributed: 7.0  
Appearance: Slightly hazy straw liquid  
Odor: Bitter

IV - FIRE AND EXPLOSION

Flash Point F: None to boil  
Flammable Limits: N/A  
Extinguishing Media: Use media suitable for surrounding fire.  
Special Fire Fighting Procedures: None.  
Unusual Fire and Explosion Hazards: Freshly formed zinc oxide fumes (as from a fire) may cause metal fume fever, a temporary condition with chills, fever, tightness in chest, cough and leukocytes. Contains nitrites - dry powder may explode when exposed to heat or flame.

V - REACTIVITY DATA

Stability - Conditions to avoid: None known. Do not allow evaporation to dryness.  
Incompatibility: None known.  
Hazardous Decomposition Products: Forced ignition of dried residues may produce CO, CO₂, phosphorus OX1.  
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES: Causes irritation. SKIN: May cause irritation. INGESTION: Overexposure causes upset to stomach. INHALATION: Inhalation of metal oxide fumes, formed when product is heated to decomposition, can result in metal fume fever, a temporary condition with chills, fever, tightness in chest, cough and leukocytes.  
B. SUBCHRONIC, CHRONIC, OTHER: None known.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air and contact physician.
EYES: In case of eye contact, flush eyes with flowing water for at least 15 minutes. Get medical attention.
SKIN: Wash thoroughly with soap and water.
INGESTION: Give large amounts of water.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Do not allow liquid to evaporate. Small spills may be mopped up or flushed to drain with water.
Waste Disposal Methods: Contact an authorized scavenger service.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Safety glasses or goggles Gloves: Rubber gloves
Other Clothing and Equipment: Protective apron.
Ventilation: Normal.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: If frozen, thaw to room temperature and mix thoroughly. (Roll drum) For industrial and institutional use only.
Additional Information: Read and observe all label precautions.

<table>
<thead>
<tr>
<th>NFPA Health Hazard</th>
<th>HMIS RATING Health Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Specific Hazard:

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Coil Pow'r
Synonyms: Coil Cleaner

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4155

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
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<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>&lt;5%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: N/A
- Evaporation Rate: (ether=1) N/A
- Solubility in H₂O: Complete
- Freezing Point °F: Circa 32°F
- Boiling Point °F: @14.7 psig @212°
- Specific Gravity H₂O=1 @25° C: 1.05
- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.): @105°C/1hr. 90-91
- pH @ 1.0% Solution: 10.5
- pH as Distributed: 13
- Appearance: Clear, purple liquid
- Odor: Near odorless

IV - FIRE AND EXPLOSION

- Flash Point F: None to boil
- Flammable Limits: N/A
- Extinguishing Media: Suitable for surrounding area - water, dry chemical, foam CO₂.
- Special Fire Fighting Procedures: N/A
- Unusual Fire and Explosion Hazards: N/A

V - REACTIVITY DATA

- Stability - Conditions to avoid: None.
- Incompatibility: None known.
- Hazardous Decomposition Products: Forced ignition of dried residues may produce CO, CO₂, nitrogen oxides.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Detergent in the product is irritating to the eyes. SKIN: Product is not a primary skin irritant by FHSA. Prolonged and repeated contact may cause irritation as indicated by pH in product. INHALATION: Mists or spray can irritate nasal passages. INGESTION: Acute oral LD50 (rats) >5000 mg/kg. Ingestion of large quantities causes upset to the stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: N/A

VII - EMERGENCY AND FIRST AID PROCEDURES

- INHALATION: Remove source of irritation.
- EYES: Flush eyes with flowing water for 15 minutes, call a physician.
- SKIN: Rinse affected area thoroughly with flowing water.
- INGESTION: Give large quantities of water or milk followed by vinegar or lemon juice and immediately contact a physician.
VIII - SPILL OR LEAK PROCEDURE

**Spill Management:** Small spills may be mopped up and residues flushed to the sewer with water. Rinse mop before storing. May be neutralized with diluted acetic acid.

**Waste Disposal Methods:** Dispose spent solutions in accordance with local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

**Respiratory:** Avoid breathing mists or spray.

**Eye Protection:** Goggles or face shield

**Gloves:** For manual cleaning

**Other Clothing and Equipment:** Not normally required.

**Ventilation:** Normal room ventilation.

X - SPECIAL PRECAUTIONS

**Precautions to be taken in Handling and Storing:** This product will withstand an occasional accidental freezing without loss in its normal performance characteristics. It must be thoroughly thawed and agitated (roll drum) before being used. Store in heated area below 135°F.

**Additional Information:** Read and observe labeled use instructions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 1</td>
<td>Health Hazard ..........: 1</td>
</tr>
<tr>
<td>Fire Hazard...............: 0</td>
<td>Fire Hazard .............: 0</td>
</tr>
<tr>
<td>Reactivity ................: 0</td>
<td>Reactivity ...............: 0</td>
</tr>
<tr>
<td>Specific Hazard .........:</td>
<td>Personal Protection.... : X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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Material Safety Data Sheet
Cork Insulation Tape

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Cork Insulation Tape

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: NO
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: 1.3 +/- .05 g/cc
Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.): N/A
pH @ N/A Solution: N/A
pH as Distributed: N/A
Appearance: Soft, pliable, pressure sensitive material
Odor:

IV - FIRE AND EXPLOSION

Flash Point F: 450° Flammable Limits: N/A
Extinguishing Media: Foam, CO₂, Dry Chemicals
Special Fire Fighting Procedures: Water unsuited for rubber fires
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable; High temperature yields decomposition to isobutene
Incompatibility: Oxygen supplying chemicals and contact with acid clays at elevated temperatures
Hazardous Decomposition Products: CO, CO₂, H₂O, and isobutene
Conditions Contributing to Hazardous Polymerizations: May not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: N/A, EYES & SKIN: N/A
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush with plenty of water
SKIN: Flush with plenty of water
INGESTION: N/A

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Repackage uncontaminated tape. Dispose of contaminated or unusable tape
Waste Disposal Methods: Bury tape waste in an approved land fill site
IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: N/A
Eye Protection: N/A Gloves: N/A
Other Clothing and Equipment: N/A
Ventilation: N/A

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent high temperature exposure
Additional Information: None

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard: 0</td>
<td>Health Hazard: 0</td>
</tr>
<tr>
<td>Fire Hazard: 1</td>
<td>Fire Hazard: 1</td>
</tr>
<tr>
<td>Reactivity: 0</td>
<td>Reactivity: 0</td>
</tr>
<tr>
<td>Specific Hazard:</td>
<td>Personal Protection: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Degreasing Solvent

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Degreasing Solvent
Product Number: 4161
Synonyms: Chlorinated Hydrocarbon Solvent

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stoddard Solvent* (ORAL LD50 &gt;10mg/kg)</td>
<td>8052-41-3</td>
<td>60</td>
<td>100ppm</td>
<td>100ppm</td>
</tr>
<tr>
<td># 1,1,1-trichlorethane** (ORAL LD50 rabbit 5660mg/kg)</td>
<td>71-55-6</td>
<td>40</td>
<td>350ppm</td>
<td>350ppm</td>
</tr>
</tbody>
</table>

*STEL=200ppm; **STEL=450ppm
# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Unknown
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: Slight
Freezing Point °F: N/A
Boiling Point °F: 165°F
Specific Gravity H₂O=1 @25° C: 0.982

Vapor Density (Air=1) 60-90° F: Unknown
VOC Content (% by wt.): 100
pH @ Solution: N/A
pH as Distributed: N/A
Appearance: Clear liquid
Odor: Hydrocarbon odor

IV - FIRE AND EXPLOSION

Flash Point F: 116°F TOC Flammable Limits: N/AV
Extinguishing Media: Dry chemical, foam, CO₂.
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.
Unusual Fire and Explosion Hazards: Toxic gases and vapors such as hydrogen chloride, phosgene and carbon monoxide may be released if involved in a fire.

V - REACTIVITY DATA

Stability - Conditions to avoid: Keep away from heat and flame.
Incompatibility: Strong oxidizers, aluminum and magnesium powders and sodium potassium.
Hazardous Decomposition Products: See Section IV.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Causes irritation. May defat, dry and cause scaling of skin upon contact. INHALATION: Harmful if inhaled. May cause nausea, vomiting, coughing and respiratory irritation. INGESTION: Aspiration into lungs can occur resulting in pneumonitis, pulmonary edema & hemorrhage.
B. SUBCHRONIC, CHRONIC, OTHER: CHRONIC: Inhalation of Stoddard Solvent show results of hepatic and hematopoietic changes.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. Call a physician.
EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush skin with water. Wash clothing before reuse.
INGESTION: If swallowed, DO NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area, contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable absorbing material. Dispose of in approved landfill.
Waste Disposal Methods: Dispose of in accordance with above described (or similarly approved) disposal procedure. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH - approved respirator is recommended if exceeds OSHA TLV's for Stoddard Solvent & 1,1,1-trichloroethane.
Eye Protection: Eye goggles or full face shield. Gloves: Solvent-resistant rubber.
Other Clothing and Equipment: Not required.
Ventilation: Local and mechanical exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Wash thoroughly after handling. Keep container closed.
Additional Information: Vapors are heavier than air and will collect in low areas. Use only in well-ventilated areas that will maintain air levels below limits established by federal, state, and local regulations.

<table>
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<tr>
<th>NFPA</th>
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</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

NFPA: 1, Fire Hazard: 2, Reactivity: 0, Specific Hazard: 0, Personal Protection: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Degreasing Solvent - Canada  
Synonyms: Chlorinated Hydrocarbon Solvent  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4828

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
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<td>8052-41-3</td>
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<td>100ppm</td>
<td>100ppm</td>
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<td># 1,1,1-trichlorethane** (ORAL LD50 rabbit 5660mg/kg)</td>
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III - PHYSICAL DATA

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<th>Property</th>
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<td>Vapor Pressure: mm Hg: Unknown</td>
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</tr>
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<td>Evaporation Rate: (ether=1): N/A</td>
<td></td>
</tr>
<tr>
<td>Solubility in H₂O: Slight</td>
<td></td>
</tr>
<tr>
<td>Freezing Point °F: N/A</td>
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<td>Boiling Point °F: 165°F</td>
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<tr>
<td>Specific Gravity H₂O=1 @25° C: 0.982</td>
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</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F: Unknown</td>
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</tr>
<tr>
<td>VOC Content (% by wt.): 100</td>
<td></td>
</tr>
<tr>
<td>pH @ Solution: N/A</td>
<td></td>
</tr>
<tr>
<td>pH as Distributed: N/A</td>
<td></td>
</tr>
<tr>
<td>Appearance: Clear liquid</td>
<td></td>
</tr>
<tr>
<td>Odor: Hydrocarbon odor</td>
<td></td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: 116F TOC Flammable Limits: N/AV  
Extinguishing Media: Dry chemical, foam, CO₂.  
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.  
Unusual Fire and Explosion Hazards: Toxic gases and vapors such as hydrogen chloride, phosgene and carbon monoxide may be released if involved in a fire.

V - REACTIVITY DATA

Stability - Conditions to avoid: Keep away from heat and flame.  
Incompatibility: Strong oxidizers, aluminum and magnesium powders and sodium potassium.  
Hazardous Decomposition Products: See Section IV.  
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Causes irritation. May defat, dry and cause scaling of skin upon contact. INHALATION: Harmful if inhaled. May cause nausea, vomiting, coughing and respiratory irritation. INGESTION: Aspiration into lungs can occur resulting in pneumonitis, pulmonary edema & hemorrhage.  
B. SUBCHRONIC, CHRONIC, OTHER: CHRONIC: Inhalation of Stoddard Solvent show results of hepatic and hematopoietic changes.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. Call a physician.
EYES: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush skin with water. Wash clothing before reuse.
INGESTION: If swallowed, DO NOT induce vomiting. Call a physician immediately. Never give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area, contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable absorbing material. Dispose of in approved landfill.
Waste Disposal Methods: Dispose of in accordance with above described (or similarly approved) disposal procedure. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH - approved respirator is recommended if exceeds OSHA TLV's for Stoddard Solvent & 1,1,1-trichloroethane.
Eye Protection: Eye goggles or full face shield. Gloves: Solvent-resistant rubber.
Other Clothing and Equipment: Not required.
Ventilation: Local and mechanical exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Avoid breathing vapors. Wash thoroughly after handling. Keep container closed.
Additional Information: Vapors are heavier than air and will collect in low areas. Use only in well-ventilated areas that will maintain air levels below limits established by federal, state, and local regulations.

NFPA
Health Hazard ..........: 1
Fire Hazard.............: 2
Reactivity ...............: 0
Specific Hazard .........:

HMIS RATING
Health Hazard..........: 1
Fire Hazard ............: 2
Reactivity .............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Degreasing Solvent ef  
Synonyms: Chlorinated Hydrocarbon Solvent  
Product Number: 4162

Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
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<tr>
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<th>% By Wt</th>
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<tbody>
<tr>
<td>Stoddard Solvent* (ORAL LD50 &gt; 10mg/kg)</td>
<td>8052-41-3</td>
<td>60</td>
<td>100ppm</td>
<td>100ppm</td>
</tr>
<tr>
<td>p-Chlorobenzotrifluoride(a)</td>
<td>98-56-6</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>o-Chlorotoluene</td>
<td>95-49-8</td>
<td>50ppm</td>
<td>250ppm</td>
<td></td>
</tr>
<tr>
<td>Perchloroethylene(b,c,d,e,f)</td>
<td>127-18-4</td>
<td>25ppm</td>
<td>170ppm</td>
<td></td>
</tr>
</tbody>
</table>

*a) This item is not identified in the available haz. chemicals guides. However, its characteristics parallel hazards of material that is identified; therefore, it will be so identified until further identification.  
b) Ingredient subject to reporting under Sec. 313 of Title III (SARA) and 40 CFR 372.  
c) RCRA has determined that the waste for this chemical is listed as hazardous and must be handled in accordance with 40 CFR 260-281.  
d) CERCLA has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ 100lbs) or greater amounts (40CFR302).  
e) Material is on the NTP list of possible carcinogens, IRAC’s list of possible carcinogens, OR is regulated by OSHA as a possible carcinogen.  
f) Indicates listing in Table Z-2, 29 CFR 1910.1000, detailing acceptable ceiling concentration limits and acceptable maximum peak above ceiling concentration for an 8-hour shift.  
All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>mm Hg: 10 @ 20°C</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>(ether=1): &lt;1</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Negligible</td>
</tr>
<tr>
<td>Freezing Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>260-380°F</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25°C</td>
<td>0.9834</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>60-90°F</td>
</tr>
<tr>
<td>VOC Content (% by wt.)</td>
<td>100</td>
</tr>
<tr>
<td>pH @ Solution</td>
<td>N/A</td>
</tr>
<tr>
<td>Volatile Organic Comp (VOC's):</td>
<td>8.2 lbs/gal</td>
</tr>
<tr>
<td>pH as Distributed</td>
<td>N/A</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Hydrocarbon odor</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: >140°F (estimated) Flammable Limits: LEL: 1.0; UEL 7.0  
Extinguishing Media: Dry Chemical, foam, CO₂, water, water fog  
Special Fire Fighting Procedures: Must wear full facepiece, self-contained breathing apparatus in positive pressure mode. Do not use solid stream of water; use fine water spray.  
Unusual Fire and Explosion Hazards: Closed containers can explode due to buildup of pressure when exposed to extreme heat. Do not use direct stream of water. Caution: material is combustible.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable/Extreme temperatures, open flame, sparks  
Incompatibility: Strong oxidizers, strong acids.  
Hazardous Decomposition Products: Thermal decomposition may yield CO, CO₂, HCL fumes  
Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): Acute effects are possible irritation and discomfort; chronic exposure may cause liver, kidney or central nervous system damage. Perchloroethylene is a suspected cancer risk from animal studies, and is listed under IRAC as Group 28, possibly carcinogenic to humans.

B. SUBCHRONIC, CHRONIC, OTHER: INHALATION: High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting or even death in confined or poorly ventilated areas. The primary effect of inhalation is narcosis. SKIN: Brief contact may cause slight irritation; prolonged contact may cause moderate irritation or dermatitis. Problem may be accentuated by liquid becoming trapped against the skin by contaminated clothing and shoes. EYES: High vapor concentration or contact may cause irritation, discomfort or pain. May cause slight transient corneal injury. INGESTION: Swallowing this material may result in irritation of the mouth and GI tract. Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema which is a potentially fatal condition.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air; provide oxygen if breathing is difficult; administer CPR if victim is not breathing; seek medical attention.

EYES: Flush with water for 15 minutes, holding eyelids open; if irritation persists, seek medical attention.

SKIN: Remove contaminated clothing; wash effected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

INGESTION: If conscious, drink large amounts of water; DO NOT INDUCE VOMITING; take immediately to hospital. Do not give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: COMBUSTIBLE Evacuate and ventilate area; confine and absorb into absorbent; place material into approved containers for disposal; for spills in excess of allowable limits (RQ) notify the National Response Center at (800) 424-8802; refer to CERCLA 40 CFR 302 and SARA Title III, Section 313 40 CFR 372 for detailed instructions concerning reporting requirements.

Waste Disposal Methods: N/A

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH-approved respirator must be worn if OSHA threshold limits exceeded.

Eye Protection: goggles with side shield. Gloves: Solvent- resistant rubber or neoprene

Other Clothing and Equipment: Safety eye bath nearby.

Ventilation: Local and mechanical exhaust is required.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Material is combustible. Should be stored in tightly closed containers in cool, well ventilated area. Vapor may form explosive mixtures in air. All Sources of ignition should be controlled. Keep this and other chemicals out of reach of children; minimize body contact with this product as well as all chemicals. Avoid inhaling concentrated fumes or vapors.

Additional Information: Vapors are heavier than air and will collect in low areas. Use only in well-ventilated areas that will maintain air levels below limits established by federal, state, and local regulations.
NFPA
Health Hazard ..........: 1
Fire Hazard..........: 2
Reactivity ..........: 0
Specific Hazard .......:

HMIS RATING
Health Hazard.........: 1
Fire Hazard ...........: 2
Reactivity ..........: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Drain-Solve

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Drain-Solve

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4165

Synonyms: Liquid caustic drain cleaner.

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide</td>
<td>1310-73-2</td>
<td>&gt;40</td>
<td>2mg/m3</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Complete</td>
</tr>
<tr>
<td>Freezing Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>290°F</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>1.50</td>
</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC Content (% by wt.)</td>
<td>N/A</td>
</tr>
<tr>
<td>pH @ Solution</td>
<td>N/A</td>
</tr>
<tr>
<td>pH as Distributed</td>
<td>&gt;13</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: None to boiling. Flammable Limits: Product is non flammable.
Extinguishing Media: Product is non flammable.
Special Fire Fighting Procedures: Avoid skin and eye contact, and avoid breathing of vapors. Wear head and body protection and alkali respirator if exposure is likely to happen. Firewater may become corrosive if they contact product.
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable.
Incompatibility: Strong acids, materials not resistant to alkalis, active metals (zinc, aluminum, magnesium, etc.).
Hazardous Decomposition Products: Contact with active metals can release flammable gas.
Conditions Contributing to Hazardous Polymerizations: Does not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: Breathing of mists causes respiratory irritation and can cause burns. Wear approved alkali mist respirator if exposure is likely. SKIN is Corrosive. Causes irritation and burns. EYES: Corrosive. Causes eye damage. INGESTION: Corrosive. Causes irritation and burning in mouth, esophagus, throat and stomach. Avoid swallowing. Can be fatal.
B. SUBCHRONIC, CHRONIC, OTHER: Chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Give artificial respiration or oxygen if needed. Get prompt medical attention.
EYES: Flush immediately with water for 15 minutes. Get prompt medical attention.
SKIN: Remove contaminated clothing. Flush skin thoroughly with water for 15 minutes. Get medical attention if burns persist.
INGESTION: Drink lots of water or, preferably, milk. Get medical attention if effects persist. Do not induce vomiting.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Small spills can be flushed into normal drainage or into ground with copious amounts of water, or taken up with absorbent material. Larger spills should be contained by dyking or other methods and held for collection and/or reuse, or for neutralization with acid before collection and disposal. People should use eye and skin protection and respirator.
Waste Disposal Methods: If neutralized, may be disposable in sewers if local regulations permit. Otherwise, send to licensed treatment and disposal facility. As supplied, this product is a RCRA hazardous waste. Rinse empty containers well before handling and disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Wear approved alkali mist respirator if exposure is likely.
Eye Protection: Splash-proof goggles Gloves: Alkali-resistant gloves
Other Clothing and Equipment: Wear alkali-resistant protective gloves, boots and clothing. Provide convenient safety showers and eyewash stations.
Ventilation: Use with adequate ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Check daily for leaks from containers, vessels, pumps and piping. Have water hoses and acid (caustic soda, lime, etc.) convenient. Only use containers and equipment designed for alkali service.
Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
<tr>
<td></td>
<td>X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
EMKARATE RL 100H

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 100H
Synonyms: Refrigeration Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>&gt;99</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Additives</td>
<td>&lt;1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. None of the ingredients are subject to the reporting requirements of SARA, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: (mm Hg at 20°C): <10
Evaporation Rate: No data
Solubility in H₂O: Insoluble
Freezing Point °F: >572°F > 300°C
Boiling Point °F: >572°F > 300°C
Specific Gravity H₂O=1 @25° C: 0.973 (@ 15°C)

IV - FIRE AND EXPLOSION

Flash Point F: 500°F, 260°C (COC)
Flammable Limits: Not determined.
Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical, halogenated agents.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Oxidizing agents.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: The acute oral LD₅₀ in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. EYES: This material may irritate human eyes following contact. SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. INHALATION: No toxic effects are known to be associated with inhalation of vapors from this material. High concentrations of mist may be slightly irritant to the upper respiratory tract.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
**VII - EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

**EYES:** Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

**SKIN:** Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

**INGESTION:** Do not induce vomiting. Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person).

**VIII - SPILL OR LEAK PROCEDURE**

**Spill Management:** Wear skin and eye protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

**Waste Disposal Methods:** Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

**IX - PROTECTION INFORMATION/CONTROL MEASURES**

**Respiratory:** Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.

**Eye Protection:** Chemical tight goggles. **Gloves:** Impervious gloves and apron.

**Other Clothing and Equipment:** Full faceshield in addition if splashing is possible. Eyewash station and safety shower in work area.

**Ventilation:** Use ventilation adequate to maintain safe levels.

**X - SPECIAL PRECAUTIONS**

**Precautions to be taken in Handling and Storing:** Prevent skin and eye contact.

**Additional Information:**

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
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</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard...........</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity............</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Alton Court, St. Louis, MO 63146-4151  
Product Name: EMKARATE RL 100S  
Synonyms: Refrigeration Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td></td>
<td>&gt;99</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Additives</td>
<td></td>
<td>&lt;1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. None of the ingredients are subject to the reporting requirements of SARA, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: (mm Hg at 20°C): <10
- Evaporation Rate:
- Solubility in H₂O: Insoluble
- Freezing Point °F: Not determined.
- Boiling Point °F: >572°F > 300°C
- Specific Gravity H₂O=1 @25° C: 0.973 (@ 15°C)
- Vapor Density (Air=1) 60-90° F: No data
- VOC Content (% by wt.): No data
- pH @ Solution: No data
- pH as Distributed: No data
- Appearance: Liquid
- Odor: Mild odor

IV - FIRE AND EXPLOSION

- Flash Point F: 500°F, 260°C (COC)
- Flammable Limits: Not determined.
- Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical, halogenated agents.
- Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
- Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable under normal conditions.
- Incompatibility: Oxidizing agents.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure): INGESTION: The acute oral LD50 in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. EYES: This material may irritate human eyes following contact. SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. INHALATION: No toxic effects are known to be associated with inhalation of vapors from this material. High concentrations of mist may be slightly irritant to the upper respiratory tract.

B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person).

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin and eye protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.

Eye Protection: Chemical tight goggles. Gloves: Impervious gloves and apron.

Other Clothing and Equipment: Full faceshield in addition if splashing is possible. Eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin and eye contact.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection....</td>
</tr>
</tbody>
</table>

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 150S
Synonyms: Refrigeration Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td></td>
<td>&gt;99</td>
<td>Not Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Antioxidant</td>
<td></td>
<td>&lt;1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>&lt;10 mm Hg @ 20°C</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Freezing Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>No data</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>0.976</td>
</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F</td>
<td>No data</td>
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<tr>
<td>VOC Content (% by wt.)</td>
<td>No data</td>
</tr>
<tr>
<td>pH @ Solution</td>
<td>No data</td>
</tr>
<tr>
<td>pH as Distributed</td>
<td>No data</td>
</tr>
<tr>
<td>Appearance</td>
<td>Colorless liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: 504°F Flammable Limits: No data
Extinguishing Media: Water, fog, foam, carbon dioxide, dry chemical, halogenated agents.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full face-plate & protective clothing.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Oxidizing agents.
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: The acute oral LD50 in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. EYES: No irritation is likely to develop following contact with human eyes. SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. This product will probably not be absorbed through human skin. INHALATION: Inhalation data are not available on this material. Vapors and aerosols will probably irritate respiratory passages.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin and respiratory protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.

Eye Protection: Chemical tight goggles Gloves: Impervious gloves

Other Clothing and Equipment: Eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin contact. Avoid breathing vapors or aerosols.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ...........: 1</td>
<td>Health Hazard ...........: 1</td>
</tr>
<tr>
<td>Fire Hazard ............: 1</td>
<td>Fire Hazard ............: 1</td>
</tr>
<tr>
<td>Reactivity ..........: 0</td>
<td>Reactivity ..........: 0</td>
</tr>
<tr>
<td>Specific Hazard ....:</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

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Material Safety Data Sheet
EMKARATE RL 170H

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 170H
Synonyms: Refrigeration Oil

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4318-25

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
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<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Antioxidant</td>
<td></td>
<td>&lt;1</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: <10 mm Hg @ 20°C
Evaporation Rate: N/A
Solubility in H₂O: Insoluble
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: 0.976+

IV - FIRE AND EXPLOSION

Flash Point F: 576°F 302°C
Flammable Limits: No data
Extinguishing Media: Water, fog, foam, carbon dioxide, dry chemical, halogenated agents.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full face-plate & protective clothing.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Oxidizing agents.
Hazardous Decomposition Products: Carbon dioxide, carbon monoxide.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: The acute oral LD50 in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. EYES: No irritation is likely to develop following contact with human eyes. SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. This product will probably not be absorbed through human skin. INHALATION: Inhalation data are not available on this material. Vapors and aerosols will probably irritate respiratory passages.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin and respiratory protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.


Other Clothing and Equipment: Eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin contact. Avoid breathing vapors or aerosols.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
EMKARATE RL 220H

I - PRODUCT IDENTIFICATION
Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 220H
Synonyms: Refrigeration Oil

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4318

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td></td>
<td>&gt;99</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Antioxidant</td>
<td></td>
<td>&lt;1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. None of the ingredients are subject to the reporting requirements of SARA, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: (mm Hg at 20°C): <10
Evaporation Rate: No data
Solubility in H₂O: Insoluble
Freezing Point °F: Not determined
Boiling Point °F: Not determined
Specific Gravity H₂O=1 @25° C: 0.976
Vapor Density (Air=1) 60-90° F: No data
VOC Content (% by wt.): No data
pH @ Solution: No data
pH as Distributed: No data
Appearance: Liquid
Odor: Mild odor

IV - FIRE AND EXPLOSION

Flash Point F: 536°F, 280 dtg. C (COC)
Flammable Limits: No data
Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical, halogenated agents.
Special Fire Fighting Procedures: Use self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: Low fire hazard. Unlikely to ignite except in high heat flux conditions. Thermal decomposition will evolve irritant vapors.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Strong oxidizing vapors.
Hazardous Decomposition Products: Highly unlikely under intended handling and use.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: High concentrations of mist may be slightly irritant to the upper respiratory tract. Thermal decomposition will evolve irritant vapors. SKIN: Repeated or prolonged skin contact may result in mild irritation. Not a skin irritant per OSHA Hazard Communication Standard, 29 CFR 1910.1200. It is not a skin sensitizer in animal tests. EYES: May cause mild eye irritation. INGESTION: Low oral toxicity.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material. Short term tests and a consideration of the structure indicate that this substance is unlikely to be a carcinogenic hazard to humans.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove patient from exposure. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Irrigate with eyewash solution or clean water, holding eyelids apart, for at least 10 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Remove contaminated clothing. Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: DO NOT induce vomiting. Wash out mouth with water and give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person).

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin protection during clean-up. Contain and absorb large spillages onto an inert, non-flammable absorbent carrier (such as earth or sand). Do not allow to enter drains, sewers, or waterways.

Waste Disposal Methods: Shovel it into a chemical waste container for disposal or recovery.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Use NSHA-NIOSH approved for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.

Eye Protection: Chemical tight goggles Gloves: Impervious gloves and apron.

Other Clothing and Equipment: Provide eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid prolonged or recurring skin contact. Avoid inhalation of high concentrations of mists or aerosols. Avoid ingress of moisture by keeping containers properly sealed when not in use. Product application requires that the product remain dry and free of excessive moisture pick-up. Keep away from strong oxidizing agents.

Additional Information:

NFPA                  HMIS RATING
Health Hazard..........: 1      Health Hazard...........: 1
Fire Hazard............: 1        Fire Hazard.............: 1
Reactivity.............: 0        Reactivity...............: 0
Specific Hazard........:  

Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 22H

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>&gt;99</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Antioxidant</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications.

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: (mm Hg at 20°C): <10
Evaporation Rate:
Solubility in H₂O: <1%
Freezing Point °F: No data
Boiling Point °F: No data
Specific Gravity H₂O=1 @25° C: 0.998
Vapor Density (Air=1) 60-90° F: No data
VOC Content (% by wt.): No data
pH @ Solution: No data
pH as Distributed: No data
Appearance: Pale yellow, clear liquid
Odor: Mild odor

IV - FIRE AND EXPLOSION

Flash Point °F: 464°F, 240°C (COC)
Flammable Limits: (STP) No data
Extinguishing Media: Carbon dioxide, dry chemical or appropriate foam. If water is used, use with care to avoid possible violent production of steam.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: Low fire hazard. Unlikely to ignite except in high heat flux conditions. Thermal decomposition will evolve irritant vapors.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Strong oxidizing agents.
Hazardous Decomposition Products: Highly unlikely under intended handling and use. See Section 5.
Combustion products: Carbon dioxide, carbon monoxide.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   INHALATION: High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors. INGESTION: Low oral toxicity. EYES: By analogy with a similar substance this material is unlikely to cause irritation in man. SKIN: Repeated or prolonged skin contact may result in mild irritation. Not a skin irritant per OSHA Hazard Communication Standard, 29 CFR 1910.1200. By analogy with a similar substance this material is unlikely to be a skin sensitizer following contact with human skin.

B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Give 1 or 2 gasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. CONTAINER DISPOSAL: Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.

Eye Protection: Chemical tight goggles Gloves: Impervious

Other Clothing and Equipment: Impervious gloves and apron. Eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin contact.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard: 1</td>
<td>Health Hazard: 1</td>
</tr>
<tr>
<td>Fire Hazard: 1</td>
<td>Fire Hazard: 1</td>
</tr>
<tr>
<td>Reactivity: 0</td>
<td>Reactivity: 0</td>
</tr>
<tr>
<td>Specific Hazard:</td>
<td>Personal Protection: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
EMKARATE RL 22N

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 22N
Synonyms: Refrigeration Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester (New Jersey TSR:</td>
<td>08306620-5816P,5845P)</td>
<td>&gt;99</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Antioxidants</td>
<td></td>
<td>&lt;1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications.

None of the ingredients are subject to the reporting requirements of SARA, Section 313.
All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure: (mmHg at 20 °C):</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td></td>
</tr>
<tr>
<td>Solubility in H₂O:</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Freezing Point °F:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling Point °F:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C:</td>
<td>0.989</td>
</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F:</td>
<td>No data</td>
</tr>
<tr>
<td>VOC Content (% by wt.):</td>
<td>No data</td>
</tr>
<tr>
<td>pH as Distributed:</td>
<td>No data</td>
</tr>
<tr>
<td>Appearance:</td>
<td>Pale yellow, clear liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>Mild odor</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point °F:</td>
<td>246 (open cup)</td>
</tr>
<tr>
<td>Flammable Limits:</td>
<td>No data</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>Carbon dioxide, dry chemical, or appropriate foam. If water is used, use with care to avoid possible violent production of steam.</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures:</td>
<td>Use self-contained breathing apparatus with full facepiece and protective clothing.</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards:</td>
<td>Low fire hazard. Unlikely to ignite except in high heat flux conditions. Thermal decomposition will evolve irritant vapors.</td>
</tr>
</tbody>
</table>

V - REACTIVITY DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability - Conditions to avoid</td>
<td>Stable under normal conditions.</td>
</tr>
<tr>
<td>Incompatibility</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products</td>
<td>Highly unlikely under intended handling and use.</td>
</tr>
<tr>
<td>Conditions Contributing to Hazardous Polymerizations</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   INHALATION: High concentrations of mist may be slightly irritant to the upper respiratory tract. Thermal decomposition will evolve irritant vapors. SKIN: Repeated or prolonged skin contact may result in mild irritation. Not a skin irritant per OSHA Hazard Communication Standard, 29 CFR 1910.1200. It is not a skin sensitizer in animal tests. EYES: May cause mild eye irritation. INGESTION: Low oral toxicity.

B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material. Short term tests and a consideration of the structure indicate that this substance is unlikely to be a carcinogenic hazard to humans.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove patient from exposure. If a cough or other respiratory symptoms develop, consult medical personnel.
EYES: Irrigate with eyewash solution or clean water, holding eyelids apart, for at least 10 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.
SKIN: Remove contaminated clothing. Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.
INGESTION: DO NOT induce vomiting. Wash out mouth with water and give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin protection during clean-up. Contain and absorb large spillages onto an inert, non-flammable absorbent carrier (such as earth or sand). Do not allow to enter drains, sewers, or waterways.
Waste Disposal Methods: Shovel into a chemical waste container for disposal or recovery.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If needed, use NSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m³.
Eye Protection: Chemical tight goggles. Gloves: Impervious
Other Clothing and Equipment: Provide eyewash station and safety shower in work area.
Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid prolonged or recurring skin contact. Avoid inhalation of high concentrations of mists or aerosols. Avoid ingress of moisture by keeping containers properly sealed when not in use. Product application requires that the product remain dry and free of excessive moisture pick-up. Keep away from strong oxidizing agents.
Additional Information:
NFPA
Health Hazard ..........: 1
Fire Hazard ..........: 1
Reactivity ..........: 0
Specific Hazard .......:

HMIS RATING
Health Hazard..........: 1
Fire Hazard ..........: 1
Reactivity ..........: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 32CF
Synonyms: Refrigeration Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td></td>
<td>&gt;99</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Additives</td>
<td></td>
<td>&lt;1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: (mm Hg at 20°C): <10
Evaporation Rate:  
Solubility in H₂O: <1%
Freezing Point °F:  
Boiling Point °F: 572
Specific Gravity H₂O=1 @ 25° C: 0.972

IV - FIRE AND EXPLOSION

Flash Point F: 490°F, 254°C (COC) Flammable Limits: (STP) No data
Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical, halogenated agents
Special Fire Fighting Procedures: Self-contained breathing apparatus with full face piece and protective clothing.
Unusual Fire and Explosion Hazards: None known

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Oxidizing agents
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): Inhalation: No toxic effects are known to be associated with inhalation of vapors from this material. High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors. Ingestion: The acute oral LD50 in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. Eyes: No irritation is likely to develop following contact with human eyes. Skin: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact may result in mild skin irritation. This product will probably not be absorbed through human skin.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material. Short term tests and a consideration of the structure indicate that this substance is unlikely to be a carcinogenic hazard to humans
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical attention.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Give 1 or 2 glasses of water to drink and refer person to medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish, or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal. Ecological Information: Persistency and degradation: The product is substantially biodegradable in water.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not normally needed, if controls are adequate. If needed, use MSHA-NIOSH approved respirator for organic vapors

Eye Protection: Chemical tight goggles Gloves: Impervious gloves and apron.

Gloves: Impervious gloves and apron.

Other Clothing and Equipment: Eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin contact. Avoid inhalation of high concentrations of mists.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard ............: 1</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard .............: 1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity ...............: 0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 32H
Synonyms: Refrigeration Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

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</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. None of the ingredients are subject to the reporting requirements of SARA, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: (mm Hg at 20°C): <10
Evaporation Rate: Not determined
Solubility in H₂O: Insoluble
Freezing Point °F: Not determined
Boiling Point °F: Not determined
Specific Gravity H₂O=1 @25° C: 0.977

IV - FIRE AND EXPLOSION

Flash Point F: 518°F, 270°C (COC)
Flammable Limits: Not determined
Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical, halogenated agents.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Oxidizing agents.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: The acute oral LD50 in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. In humans, irritation of the mouth, pharynx, esophagus and stomach may develop following ingestion of this product. EYES: No irritation is likely to develop following contact with human eyes. SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. INHALATION: No toxic effects are known to be associated with inhalation of vapors from this material. High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Give 1 or 2 glasses of water to drink and refer person to medical attention. (Never give anything by mouth to an unconscious person).

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.

Eye Protection: Chemical tight goggles. Gloves: Impervious

Other Clothing and Equipment: Impervious apron. Eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin contact. Avoid inhalation of high concentrations of mists.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
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<tr>
<td>Fire Hazard</td>
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<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions. While Seller believes that the information contained herein is accurate, such information is offered solely for its customers’ consideration and verification under their specific use conditions.
I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: EMKARATE RL 32HB  
Synonyms: Refrigeration Oil  

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>97</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Antioxidant</td>
<td>&lt; 1</td>
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<td>N/A</td>
<td>N/A</td>
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<tr>
<td>ortho isomer)</td>
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</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. None of the ingredients are subject to the reporting requirements of SARA, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: No Data  
Evaporation Rate: N/A  
Solubility in H₂O: <1%  
Freezing Point °F: N/A  
Boiling Point °F: N/A  
Specific Gravity H₂O=1 @25° C: 0.977  
Vapor Density (Air=1) 60-90° F: N/A  
VOC Content (% by wt.): N/A  
pH @ N/A Solution: N/A  
pH as Distributed: N/A  
Appearance: Pale yellow, clear liquid  
Odor: Mild odor

IV - FIRE AND EXPLOSION

Flash Point °C: 270 (open cup)  
Flammable Limits: No Data  
Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical. If water is used, use with care to avoid possible violent production of steam.  
Special Fire Fighting Procedures: Self-contained breathing apparatus w/ full facepiece and protective clothing  
Unusual Fire and Explosion Hazards: Low fire hazard. Unlikely to ignite except in high heat flux conditions. Thermal decomposition will evolve irritant vapors.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.  
Incompatibility: Strong oxidizing agents.  
Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):

INHALATION: High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors. EYES: Unlikely to cause eye irritation. SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. Not a skin irritant per OSHA Hazard Communication standard, 29 CFR 1910.1200. INGESTION: Relative to other materials, this material is classified as "slightly toxic" by ingestion. In humans, irritation of the mouth, pharynx, esophagus and stomach may develop following ingestion of the product.

B. SUBCHRONIC, CHRONIC, OTHER:

No other adverse clinical effects have been associated with exposures to this material. CARCINOGENICITY: The ingredients of this product are not classified as carcinogenic by ACGIH or IRAC, not regulated as carcinogens by OSHA and not listed as carcinogenic by NTP.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

No other adverse clinical effects have been associated with exposures to this material.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Wash out mouth with water and give 1 or 2 glasses of water to drink and refer person to medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin and eye protection during cleanup. Contain spill. Keep out of sewers and drains. Contain and soak up material with inert, non-flammable absorbent such as sand or dirt. Shovel into a chemical waste container for disposal or recovery.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whole TLV is greater than 0.05 mg/m3.


Other Clothing and Equipment: Eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin and eye contact. Avoid inhalation of high concentrations of mists or vapors.

Additional Information:
NFPA
Health Hazard ..........: 1
Fire Hazard ............: 1
Reactivity .............: 0
Specific Hazard ......:

HMIS RATING
Health Hazard ..........: 1
Fire Hazard ............: 1
Reactivity .............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 32S
Synonyms: Refrigeration Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
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<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>08306620-5803P</td>
<td>&gt;99</td>
<td>N/A</td>
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<tr>
<td>Additives</td>
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<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications. None of the ingredients are subject to the reporting requirements of SARA, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: 6.5
Evaporation Rate:
Solubility in H₂O: Insoluble (<1 mg/1)
Freezing Point °F:
Boiling Point °F: > 250°C
Specific Gravity H₂O=1 @25° C: 0.973
Vapor Density (Air=1) 60-90° F: No data
VOC Content (% by wt.): No data
pH @ Solution: No data
pH as Distributed: No data
Appearance: Pale yellow, clear liquid.
Odor: Mild odor

IV - FIRE AND EXPLOSION

Flash Point °F: 250°C (open cup) Flammable Limits: No data
Extinguishing Media: Carbon dioxide, dry chemical or appropriate foam. Use water with care to avoid possible violent production of steam.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: Low fire hazard. Unlikely to ignite except in high heat flux conditions. Thermal decomposition will evolve irritant vapors.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Strong oxidizing agents.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects), A. ACUTE (Primary Route of Exposure): INGESTION: This material is classified as "slightly toxic" by ingestion. EYES: This material is nonirritating in rabbit eye irritation studies; unlikely to cause eye irritation in man. SKIN: Repeated or prolonged skin contact may result in irritation. Not a skin irritant per OSHA Hazard Communication Standard, 20 CFR 1910.1200. It is not a skin sensitizer in animal tests. INHALATION: High concentration of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Remove contaminated clothing. Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin and respiratory protection during cleanup. Contain and absorb large spillages onto an inert, non-flammable absorbent carrier (such as earth or sand). Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If needed, use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.

Eye Protection: Chemical tight goggles. Gloves: Impervious

Other Clothing and Equipment: Impervious gloves and apron. Eyewash station and safety shower in work areas.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin contact. Avoid breathing vapors or aerosols. Store in tightly sealed containers to protect from atmospheric moisture. Store in a cool area.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard.........: 1</td>
<td>Health Hazard............: 1</td>
</tr>
<tr>
<td>Fire Hazard............: 1</td>
<td>Fire Hazard.............: 1</td>
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<td>Reactivity...............: 0</td>
<td>Reactivity..................: 0</td>
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<tr>
<td>Specific Hazard.......:</td>
<td>Personal Protection.... : X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
EMKARATE RL 46H

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 46H
Synonyms: Refrigeration Oil

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4315-H

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester (New Jersey TSR#:08306620-5845P, 5846P)</td>
<td></td>
<td>99%</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>Additives</td>
<td></td>
<td>1%</td>
<td>N/A</td>
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</tr>
<tr>
<td>Antioxidant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications.

None of the ingredients are subject to the reporting requirements of SARA, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: <10 (mm Hg @ 20°C)
Evaporation Rate: No data
Solubility in H₂O: Insoluble
Freezing Point °F: Not determined
Boiling Point °F: Not determined
Specific Gravity H₂O=1 @25° C: 0.977

Vapor Density (Air=1) 60-90° F: No data
VOC Content (% by wt.): No data
pH @ Solution: No data
pH as Distributed: No data
Appearance: Liquid, pale yellow
Odor: Mild odor

IV - FIRE AND EXPLOSION

Flash Point °F: 500°F, 260°C (COC) Flammable Limits: No data
Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical, halogenated agents.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Oxidizing agents.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors. INGESTION: The acute oral LD50 in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. In humans, irritation of the mouth, pharynx, esophagus and stomach may develop following ingestion of this product. SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. EYES: This material may irritate human eyes following contact.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.
EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.
SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.
INGESTION: Do not induce vomiting. Give 1 or 2 glasses of water to drink and refer person to medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin and eye protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.
Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment or original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.
Eye Protection: Chemical tight goggles
Gloves: Impervious
Other Clothing and Equipment: Full faceshield in addition if splashing is possible. Eyewash station and safety shower in work area. Impervious gloves and apron.
Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin and eye contact. Avoid inhalation of high concentrations of mists.
Additional Information:

NFPA
Health Hazard ...........: 1
Fire Hazard..............: 1
Reactivity ................: 0
Specific Hazard ........: 0

HMIS RATING
Health Hazard............: 1
Fire Hazard...............: 1
Reactivity..................: 0
Personal Protection.....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 68H

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4316-41

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol ester</td>
<td>08306620-5845P,</td>
<td>&gt;99</td>
<td>Not listed</td>
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<td>Additives</td>
<td>5846P</td>
<td>&lt;1</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or non hazardous. Values are not product specifications.

None of the ingredients are subject to the reporting requirements of SARA, Section 313.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: No data
Evaporation Rate: (H₂O=1): Not Determined
Solubility in H₂O: Less than 1%
Freezing Point °F: Not Determined
Boiling Point °F: Not determined
Specific Gravity H₂O=1 @25° C: 0.977
Vapor Density (Air=1) 60-90° F: Not Determined
VOC Content (% by wt.): None Volatile
pH @ Solution: Not Determined
pH as Distributed: Not Determined
Appearance: Pale yellow, clear liquid
Odor: Mild

IV - FIRE AND EXPLOSION

Flash Point F: 518°F (open cup) 270°C Flammable Limits: Not Determined
Extinguishing Media: Carbon dioxide, water fog, dry chemical or appropriate foam. If water is used, use with care to avoid possible violent production of steam.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: Low fire hazard. Unlikely to ignite except in high heat flux conditions.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Strong oxidizing agents
Hazardous Decomposition Products: Highly unlikely under intended handling & use. Combustion products: Carbon Dioxide, Carbon Monoxide
Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: The acute oral LD50 in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. EYES: May cause mild irritation SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. INHALATION: High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors.
B. SUBCHRONIC, CHRONIC, OTHER: No adverse effects are presently known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

**INHALATION:** Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

**EYES:** Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

**SKIN:** Remove contaminated clothing. Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

**INGESTION:** Do not induce vomiting. Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop consult medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

**Spill Management:** Wear skin and respiratory (if mist or vapors are present) protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

**Waste Disposal Methods:** Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Container disposal: Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

**Respiratory:** Not normally needed, if controls are adequate. If needed, use MSHA-NIOSH approved respirator for organic vapors

**Eye Protection:** Chemical tight goggles **Gloves:** Impervious

**Other Clothing and Equipment:** Eyewash station and safety shower in work area.

**Ventilation:** Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

**Precautions to be taken in Handling and Storing:** Avoid prolonged or recurring skin contact. Avoid inhalation or high concentrations of mists or aerosols. Avoid ingress or moisture by keeping containers properly sealed when not in use. Product application requires that the product remain dry and free of excessive moisture pick-up. Keep away from strong oxidizing agents.

**Additional Information:** Prevent skin and eye contact. Avoid inhalation of high concentrations of mists.

NFPA

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
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<tbody>
<tr>
<td>Health Hazard</td>
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<td>Fire Hazard</td>
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<tr>
<td>Reactivity</td>
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HMIS RATING

<table>
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<th>Rating</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Fire Hazard</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
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</tbody>
</table>

**Personal Protection:** X (Sec. 9)

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 68HP

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
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<tbody>
<tr>
<td>Polyol Ester</td>
<td>08306620-5845P, 5846P</td>
<td>&gt;98</td>
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<td>Additives</td>
<td>5846P</td>
<td>&lt;2</td>
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</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications.
None of the ingredients are subject to the reporting requirements of SARA, Section 313.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: (mm Hg @ 20°C) No data
Evaporation Rate: No data
Solubility in H₂O: <1%
Freezing Point °F: No data
Boiling Point °F: No data
Specific Gravity H₂O=1 @25° C: 0.9763

IV - FIRE AND EXPLOSION

Flash Point °F: 500°F (open cup)
Flammable Limits: No data
Extinguishing Media: Water fog, foam, carbon dioxide, dry chemical, halogenated agents.
Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: Low fire hazard. Unlikely to ignite except in high heat flux conditions. Thermal decomposition will evolve irritant vapors.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Oxidizing agents.

VI - HEALTH HAZARD DATA

A. ACUTE (Primary Route of Exposure): INHALATION: No toxic effects are known to be associated with inhalation of vapors from this material. High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors. EYES: This material may irritate human eyes following contact. SKIN: Short contact periods with human skin are not usually associated with skin irritation; repeated and/or prolonged contact can result in skin irritation. INGESTION: The acute oral LD50 in rat is probably above 2,000 mg/kg. Relative to other materials, this material is classified as "slightly toxic" by ingestion. In humans, irritation of the mouth, pharynx, esophagus and stomach may develop following ingestion of the product.

B. SUBCHRONIC, CHRONIC, OTHER: The ingredients of this product are not classified as carcinogenic by ACGIH or IARC, not regulated as carcinogens by OSHA, and not listed as carcinogens by NTP.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

EYES: Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

SKIN: Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

INGESTION: Do not induce vomiting. Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear skin and eye protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

Waste Disposal Methods: Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not normally needed, if controls are adequate. If needed use MSHA-NIOSH approved respirator for organic vapors.

Eye Protection: Chemical tight goggles
Gloves: Impervious gloves and apron.

Other Clothing and Equipment: Eyewash station and safety shower in work area.

Ventilation: Use ventilation adequate to maintain safe levels.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent skin and eye contact. Avoid inhalation of high concentrations of mists or vapors.

Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
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</thead>
<tbody>
<tr>
<td>Health Hazard ...........: 1</td>
<td>Health Hazard ........... : 1</td>
</tr>
<tr>
<td>Fire Hazard ............: 1</td>
<td>Fire Hazard ............ : 1</td>
</tr>
<tr>
<td>Reactivity .............: 0</td>
<td>Reactivity ............. : 0</td>
</tr>
<tr>
<td>Specific Hazard .......:</td>
<td>Personal Protection ....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions. While Seller believes that the information contained herein is accurate, such information is offered solely for its customers’ consideration and verification under their specific use conditions.
Material Safety Data Sheet
EMKARATE RL 68S

I - PRODUCT IDENTIFICATION
Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: EMKARATE RL 68S
Synonyms: Refrigeration Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>08306620-5843P,      &gt;99</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Antioxidant</td>
<td>5844P</td>
<td>&lt;1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or nonhazardous. Values are not product specifications.
None of the ingredients are subject to the reporting requirements of SARA, Section 313.
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: <10 (mm Hg @ 20°C)
Value density (Air=1) 60-90°F: No data
VOC Content (% by wt.): No data
pH @ Solution: No data
pH as Distributed: No data
Appearance: Pale yellow, clear liquid
Odor: Mild odor.

IV - FIRE AND EXPLOSION

Flash Point F: 473°F (open cup) Flammable Limits: No data
Extinguishing Media: Carbon dioxide, dry chemical or appropriate foam. If water is used, use with care to avoid possible violent production of steam
Special Fire Fighting Procedures: Self-contained breathing apparatus with full facepiece and protective clothing.
Unusual Fire and Explosion Hazards: Low fire hazard. Unlikely to ignite except in high heat flux condition. Thermal decomposition will evolve irritant vapors.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions.
Incompatibility: Oxidizing agents.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: High concentrations of mist may be slightly irritating to the upper respiratory tract. Thermal decomposition will evolve irritant vapors. EYES: Mild irritation is likely to develop following contact with human eyes. SKIN: Repeated and/or prolonged contact can result in minor irritation. This material was not a skin sensitizer in animal testing. The potential is low for developing sensitization following contact with human skin. This product probably will not be absorbed through human skin. INGESTION: This material is classified as "slightly toxic" by ingestion.
B. SUBCHRONIC, CHRONIC, OTHER: No other adverse clinical effects have been associated with exposures to this material.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
**VII - EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** Remove victim to fresh air. If a cough or other respiratory symptoms develop, consult medical personnel.

**EYES:** Immediately flush with plenty of water for at least 15 minutes. If redness, itching, or a burning sensation develops, have eyes examined and treated by medical personnel.

**SKIN:** Remove contaminated clothing. Wash material off of the skin with plenty of soap and water. If redness, itching, or a burning sensation develops, get medical attention. Wash contaminated clothing and decontaminate footwear before reuse.

**INGESTION:** Do not induce vomiting. Give 1 or 2 glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)

**VIII - SPILL OR LEAK PROCEDURE**

**Spill Management:** Wear skin and respiratory protection during cleanup. Contain spill. Keep out of sewers and drains. Soak up material with absorbent and shovel into a chemical waste container.

**Waste Disposal Methods:** Discarded product is not a hazardous waste under RCRA, 40 CFR 261. Empty container retains product residue. Observe all hazard precautions. Do not distribute, make available, furnish or reuse empty container except for storage and shipment of original product. Remove all product residue from container and puncture or otherwise destroy empty container before disposal.

**IX - PROTECTION INFORMATION/CONTROL MEASURES**

**Respiratory:** If needed, use MSHA-NIOSH approved respirator for organic vapors, dusts and mists whose TLV is greater than 0.05 mg/m3.

**Eye Protection:** Chemical tight goggles. **Gloves:** Impervious gloves and apron.

**Other Clothing and Equipment:** Eyewash station and safety shower in work area.

**Ventilation:** Use ventilation adequate to maintain safe levels.

**X - SPECIAL PRECAUTIONS**

**Precautions to be taken in Handling and Storing:** Prevent skin contact. Avoid breathing vapors or aerosols. Storage: Avoid ingress of moisture by keeping containers properly sealed when not in use. Product application requires that the product remain dry and free of excessive moisture pick-up. Keep away from strong oxidizing agents.

**Additional Information:**

**NFPA**

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>1</th>
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<tbody>
<tr>
<td>Fire Hazard</td>
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<tr>
<td>Reactivity</td>
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</tr>
<tr>
<td>Specific Hazard</td>
<td></td>
</tr>
</tbody>
</table>

**HMIS RATING**

<table>
<thead>
<tr>
<th>Health Hazard</th>
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</thead>
<tbody>
<tr>
<td>Fire Hazard</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Evap Pow'r - C
Synonyms: Evaporator coil cleaner

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td># 2-butoxyethanol</td>
<td>(111-76-2)</td>
<td>&lt;10</td>
<td>25ppm (skin)</td>
<td>ne</td>
</tr>
<tr>
<td>sodium xylene sulfonate</td>
<td>(1300-72-7)</td>
<td>&lt;15</td>
<td>ne</td>
<td>ne</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.
This product contains no chemicals rated as carcinogens or suspect carcinogens by N.T.P., I.A.R.C., or O.S.H.A.

VOC Content: 5.3% (by wt)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Unknown
Evaporation Rate: (ether=1) Unknown
Solubility in H₂O: Complete
Freezing Point °F: Unknown
Boiling Point °F: ~210
Specific Gravity H₂O=1 @25° C: 1.04

Vapor Density (Air=1) 60-90° F: Unknown
VOC Content (% by wt.): 80
pH @ 25% Solution: 7.5
pH as Distributed: 8.0
Appearance: Clear, green liquid
Odor: Chemical odor

IV - FIRE AND EXPLOSION

Flash Point F: Not flammable
Flammable Limits: N/A
Extinguishing Media: Product is not flammable or combustible.
Special Fire Fighting Procedures: None known.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: None known.
Incompatibility: None known.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Causes eye and skin irritation. Readily absorbed through skin. INHALATION: Mists may be irritating. INGESTION: May cause upset stomach if swallowed.
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air.
EYES: Flush with plenty of water for 15 minutes. If irritation develops, call a physician.
SKIN: Wash with soap and plenty of water for 15 minutes. If irritation develops, call a physician.
INGESTION: N/A

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Take up on absorbent material. Flush residue to sewer with plenty of water.
Waste Disposal Methods: May be sewer ed in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not normally required
Eye Protection: Safety glasses Gloves: Rubber
Other Clothing and Equipment: None required.
Ventilation: Good general room ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes and skin. Avoid breathing mists. Wear safety glasses and gloves when handling.
Additional Information: Wash thoroughly after handling. KEEP OUT OF REACH OF CHILDREN.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
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</thead>
<tbody>
<tr>
<td>Health Hazard.....: 1</td>
<td>Health Hazard.....: 1</td>
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<tr>
<td>Fire Hazard.........: 0</td>
<td>Fire Hazard.........: 0</td>
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<tr>
<td>Reactivity.........: 0</td>
<td>Reactivity.........: 0</td>
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<tr>
<td>Specific Hazard....: 0</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Evap Pow'r - RTU

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Evap Pow'r - RTU
Synonyms: Evaporator coil cleaner

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4169

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td># 2-butoxyethanol</td>
<td>111-76-2</td>
<td>&lt;2</td>
<td>25ppm (skin)</td>
<td>25ppm</td>
</tr>
<tr>
<td>sodium xylene sulfonate</td>
<td>1300-72-7</td>
<td>&lt;2</td>
<td>ne</td>
<td>ne</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Unknown
Evaporation Rate: (ether=1) Unknown
Solubility in H₂O: Complete
Freezing Point °F: Unknown
Boiling Point °F: ~210°
Specific Gravity H₂O=1 @25° C: 1.01
Vapor Density (Air=1) 60-90° F: Unknown
VOC Content (% by wt.): 95
pH @ 25% Solution: N/A
pH as Distributed: 8.0
Appearance: Clear, pale green liquid
Odor: Faint chemical odor

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable
Flammable Limits: N/A
Extinguishing Media: Product is non flammable or combustible.
Special Fire Fighting Procedures: None known.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: None known.
Incompatibility: Strong acids/oxidizers; do not mix with chlorinated detergents (bleach).
Hazardous Decomposition Products: Burning may produce oxides of carbon.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: May cause irritation. INHALATION: Mists may be slightly irritating to upper respiratory tract. INGESTION: Not expected to be harmful if swallowed.
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: None known.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water. If irritation persists, get medical attention.
SKIN: Wash well with soap and plenty of water for 15 minutes. Call physician.
INGESTION: N/A
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Take up on absorbent material. Flush residue to sewer with plenty of water.
Waste Disposal Methods: May be sewered in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Safety glasses Gloves: Rubber gloves
Other Clothing and Equipment: None required.
Ventilation: Good general room ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes and skin. Avoid breathing mists.
Wear safety glasses and rubber gloves when handling. Keep out of the reach of children.
Additional Information: Wash thoroughly after handling.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard........</td>
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<tr>
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<td>0</td>
<td>: 0</td>
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<tr>
<td>Reactivity</td>
<td>Reactivity...........</td>
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<td>0</td>
<td>: 0</td>
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<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
<tr>
<td></td>
<td>: X (Sec. 9)</td>
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</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Fluorescent Gas Leak Detector

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Fluorescent Gas Leak Detector
Synonyms: Bubble-Forming Liquid

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>107-21-1</td>
<td>&lt;40</td>
<td>50ppm ceiling</td>
<td>NE</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.
All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: Unknown
- Evaporation Rate: (ether=1): Unknown
- Solubility in H₂O: Complete
- Freezing Point °F: N/A
- Boiling Point °F: Unknown
- Specific Gravity H₂O=1 @25° C: 1.085
- Vapor Density (Air=1) 60-90° F: Unknown
- VOC Content (% by wt.): @85
- pH @ Solution: N/A
- pH as Distributed: 7.3 - 7.6
- Appearance: Fluorescent green liquid
- Odor: Mild chemical odor

IV - FIRE AND EXPLOSION

- Flash Point °F: >200°F Flammable Limits: Unknown
- Extinguishing Media: In case of fire, use CO₂ foam or dry chemical.
- Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.
- Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Heat and open flame.
- Incompatibility: Can react violently with strong oxidizers, dehydrating agents such as sulfuric acid, acetic anhydride.
- Hazardous Decomposition Products: Carbon monoxide.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: May cause eye irritation. SKIN: Essentially non - irritating.
INGESTION: Harmful if swallowed. May cause nausea, dizziness, central nervous system damage, kidney disorders. INHALATION: Prolonged or repeated breathing of vapors may cause headache, nausea, dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: Repeated or prolonged inhalation of vapors may cause central nervous system damage. Repeated contact with skin may cause sensitization in some individuals. Ethylene glycol has cause birth defects in laboratory animals.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air.
EYES: Flush with plenty of water for at least 15 minutes. If irritation persists, call a physician.
SKIN: Wash area with soap and plenty of water.
INGESTION: If swallowed, call physician immediately. Give one or two glasses of water and induce vomiting by sticking finger down throat. Never give anything by mouth or attempt to induce vomiting in an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Flush spill with water or wipe up and incinerate.
Waste Disposal Methods: Incinerate or flush to drain served by sanitary sewer in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not normally required
Eye Protection: Avoid eye contact Gloves: None required
Other Clothing and Equipment: None required.
Ventilation: Vapors are minimal at room temperatures. Normal room ventilation should be sufficient.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Avoid breathing mists or vapors. Wash thoroughly after handling.
Additional Information: Keep out of reach of children. Read and observe all labeled precautions.

NFPA
Health Hazard ............: 2
Fire Hazard ..............: 0
Reactivity ...............: 0
Specific Hazard .........: 

HMIS RATING
Health Hazard .............: 2
Fire Hazard ...............: 0
Reactivity .................: 0
Personal Protection.....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Foam Insulation Tape
Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4219

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICALDATA

Vapor Pressure: N/A
Evaporation Rate: N/A
Solubility in H₂O: NO
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: N/A
Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.): N/A
pH @ N/A Solution: N/A
pH as Distributed: N/A
Appearance: Soft, pliable, pressure sensitive
Odor:

IV - FIRE AND EXPLOSION

Flash Point °F: 350°F
Flammable Limits: N/A
Extinguishing Media: Water Fog, Foam, Carbon dioxide, Dry chemical
Special Fire Fighting Procedures: Water unsuited for rubber fires
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: This product is stable and hazardous decomposition will not occur.
Incompatibility: Strong oxidizing agents, Lewis acids
Hazardous Decomposition Products: Carbon monoxide, hydrocarbons, HCl, smoke, fumes
Conditions Contributing to Hazardous Polymerizations:

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: N/A; EYES & SKIN: N/A
B. SUBCHRONIC, CHRONIC, OTHER: None known
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Not applicable
EYES: Treat as any foreign particle. Flush eyes with running water for several minutes until all of the material is removed. Seek medical attention if irritation persists.
SKIN: Wash thoroughly with soap and water if any signs of irritation appear. Individuals who show symptoms of an allergic reaction or sensitization should seek medical attention and should avoid further contact with this product.
INGESTION: Not applicable
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Repackage uncontaminated tape.
Waste Disposal Methods: Recover material and place into suitable container. Dispose of in accordance with federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: N/A
Eye Protection: N/A Gloves: N/A
Other Clothing and Equipment: N/A
Ventilation: N/A

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent high temperature exposure.
Additional Information: None

NFPA
Health Hazard ..........: 0
Fire Hazard .............: 1
Reactivity ..............: 0
Specific Hazard .......: 

HMIS RATING
Health Hazard ..........: 0
Fire Hazard .............: 1
Reactivity ..............: 1
Personal Protection ....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Name: Foam-Brite
Product Number: 4178
Synonyms: Alkaline Coil Cleaner

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (Caustic Soda)</td>
<td>1310-73-2</td>
<td>&gt;20</td>
<td>2mg/M3</td>
<td>Ceiling</td>
</tr>
</tbody>
</table>

VOC Content: 2.8%
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Not Determined
Evaporation Rate: (ether=1) Same as H₂O
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: 212°F
Specific Gravity H₂O=1 @25° C: 1.252 +/- 0.005

IV - FIRE AND EXPLOSION

Flash Point F: None to boiling
Flammable Limits: N/A
Extinguishing Media: Water spray (Fog); Dry chemical; CO₂; Foam
Special Fire Fighting Procedures: Do not enter confined fire-spaces without protective clothing and self-contained air supply.
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Strong acids/oxidizers. Do not mix with chlorinated detergents (bleach)
Hazardous Decomposition Products: Burning may produce carbon monoxide and/or carbon dioxide.
Conditions Contributing to Hazardous Polymerizations: N/A

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYE, SKIN, ORAL: Corrosive material. Will cause burns of skin and eyes with prolonged contact. Eye damage likely if contact is prolonged. Generated mists may be seriously irritating and cause damage to respiratory tract if swallowed. Harmful or fatal if swallowed. May cause severe burns of mucous membranes, stomach, nausea, vomiting - possible internal damage.
B. SUBCHRONIC, CHRONIC, OTHER: Chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.

EYES: & SKIN: Flush eyes with water for at least 15 minutes and call a physician immediately. Skin: Wash affected area with large amounts of soap and water. If irritation persists call physician.

INGESTION: Do not induce vomiting. Dilute by drinking water. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Safely stop spill at source. Contain spill by diking with soil or other inert material and CAREFULLY neutralize with dilute acid. Mop, pump or absorb with inert material and reclaim into sound containers for proper disposal.

Waste Disposal Methods: Dispose of in an approved waste facility according to Federal, State and local regulations. Keep non-neutralized material out of sewers, storm drains, surface water and soil.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH approved respirator where mists or sprays may be generated. (Caustic mist cartridge type)

Eye Protection: Chemical goggles, face shield

Gloves: Rubber gloves

Other Clothing and Equipment: Protective clothing to minimize contact (boots, apron, faceshield)

Ventilation: Product is intended for outdoor use.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Corrosive Material - Handle All Containers Carefully. Wash thoroughly after handling. Keep containers closed when not in use. Avoid contact with leather or wool.

Additional Information: None

NFPA

Health Hazard...........: 3
Fire Hazard...............: 0
Reactivity .................: 0
Specific Hazard .........:

HMIS RATING

Health Hazard............: 3
Fire Hazard ...............: 0
Reactivity .................: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Freez-Kontr'l
Synonyms: Monopropylene Glycol

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene Glycol</td>
<td>57-55-6</td>
<td>70 - 80%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure: mm Hg</td>
<td>0.1</td>
</tr>
<tr>
<td>Evaporation Rate: (ether=1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in H₂O:</td>
<td>Complete</td>
</tr>
<tr>
<td>Freezing Point °F:</td>
<td>-76° F</td>
</tr>
<tr>
<td>Boiling Point °F:</td>
<td>360°F</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>1.04</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Density (Air=1) 60-90° F</td>
<td>2.6</td>
</tr>
<tr>
<td>VOC Content (% by wt.):</td>
<td>slightly volatile</td>
</tr>
<tr>
<td>pH @ Solution:</td>
<td>N/A</td>
</tr>
<tr>
<td>pH as Distributed:</td>
<td></td>
</tr>
<tr>
<td>Appearance:</td>
<td>Light blue liquid slightly vis.</td>
</tr>
<tr>
<td>Odor:</td>
<td>Near odorless</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point F:</td>
<td>211°F</td>
</tr>
<tr>
<td>Flammable Limits: (% vol. in air)</td>
<td>-17.4</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>CO₂, Dry chemical, Alcohol type foam</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures:</td>
<td>Do not enter fire area without proper protection. See &quot;decomposition products possible.&quot; Fight fire from safe distance/protected location. Heat may build pressure/rupture closed containers. Spreading fire. Increasing risk of burns/injuries. Use water spray/fog for cooling. Avoid frothing/steam explosion. Burning liquid may float on water. Although soluble, may not be practical to extinguish fire by water dilution. Notify authorities if liquid enters sewer/public water.</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards:</td>
<td>None.</td>
</tr>
</tbody>
</table>

V - REACTIVITY DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability - Conditions to avoid:</td>
<td>Stable; avoid high temperatures and severe oxidizing conditions.</td>
</tr>
<tr>
<td>Incompatibility:</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products:</td>
<td>Incomplete combustion may produce carbon monoxide and other harmful gases/vapors.</td>
</tr>
<tr>
<td>Conditions Contributing to Hazardous Polymerizations:</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): Slight eye irritant. No inhalation hazard identified from data. No skin absorption hazard identified from data. No skin irritation identified from data. No ingestion hazard identified from data.
B. SUBCHRONIC, CHRONIC, OTHER: No chronic health effects are expected from normal use.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush with water for 20-30 minutes retract eyelids often. Obtain medical attention if pain, blinking, tears or redness persist.
SKIN: Not expected to present a significant skin hazard under anticipated conditions of normal use.
INGESTION: Not expected to present a significant ingestion hazard under anticipated conditions of normal use.

VIII - SPILL OR LEAK PROCEDURE


IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None when used with adequate ventilation.
Eye Protection: Safety glasses
Gloves: Recommended
Other Clothing and Equipment: None required.
Ventilation: Use with adequate ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Hygroscopic, use dry nitrogen or low dew point air for tank padding. Keep drums tightly closed to prevent contamination. Store at 65 - 90°F.

Additional Information: Clean equipment with water.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard ........</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard ..........</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity ..........</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Freez-Therm

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Freez-Therm
Synonyms: Inhibited Ethylene Glycol

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol**</td>
<td>107-21-1</td>
<td>&gt;95</td>
<td>100 ppm</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Dipotassium phosphate</td>
<td>7758-11-4</td>
<td>&gt;2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&gt;2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Subject to reporting requirements under SARA, Section 313, Title III
All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: 2.2 mmHg@68°F
- Evaporation Rate: N/A
- Solubility in H₂O: Complete
- Freezing Point °F: N/A
- Boiling Point °F: 325°F
- Specific Gravity H₂O=1 @25° C: N/A
- Odor: Glycol
- Vapor Density (Air=1) 60-90° F: >1
- VOC Content (% by wt.): N/A
- pH @ Solution: N/A
- pH as Distributed: 10 +/- 0.5
- Appearance: Yellow-green liquid

IV - FIRE AND EXPLOSION

- Flash Point F: 246°F by TCC Flammable Limits: LFL: 3.2 by vol. % in air UFL: N/A
- Extinguishing Media: Water fog, CO₂, dry chemical or foam.
- Special Fire Fighting Procedures: Material will not burn unless preheated. Cool fire-exposed containers with water. Wear appropriate protective clothing, gloves, helmet with face shield, and NIOSH approved self contained breathing apparatus.
- Unusual Fire and Explosion Hazards: Combustion may produce carbon, CO, CO₂ and water. Dense smoke released when burned without sufficient oxygen.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable
- Incompatibility: Oxidizing materials and compounds.
- Hazardous Decomposition Products: CO and unidentified organic compounds may be formed during combustion.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Product is moderately to severely irritating to the eyes; vapors can also cause severe eye irritation. SKIN: Product may be mildly irritating to the skin; repeated and prolonged contact may result in absorption through skin. INHALATION: Vapors may be mildly irritating to the lungs. INGESTION: Product may be harmful or fatal if swallowed. May produce central nervous system depression or kidney damage which may be fatal.
B. SUBCHRONIC, CHRONIC, OTHER: Excessive exposure may cause irritation to upper respiratory tract.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Preexisting skin, eye and respiratory disorders may be aggravated by exposure to product. Impaired kidney and liver functions from preexisting disorders may be aggravated by exposure to this product.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.
EYES: Immediately flush eyes with water for at least 15 minutes while holding eyelids open. Get medical attention.
SKIN: Flush thoroughly with water. If irritation develops, get medical attention.
INGESTION: If swallowed, induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

VIII - SPILL OR LEAK PROCEDURE

Waste Disposal Methods: Landfill solids at permitted sites. Use registered transporters. Any disposal practice must be in compliance with all federal, state/provincial and local laws and regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If exposure exceeds occupational exposure limits, use NIOSF-approved respirator to prevent over-exposure.
Other Clothing and Equipment: When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.
Ventilation: Provide general and/or local exhaust ventilation to control airborne levels below their exposure guidelines.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Store in a cool, dry place with adequate ventilation. Keep away from flames and high temperatures. Wash with soap and water after handling/using and before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before reuse.
Additional Information: Keep out of the reach of children.
**NFPA**
- Health Hazard ...........: 1
- Fire Hazard .............: 1
- Reactivity ..............: 0
- Specific Hazard ........:

**HMIS RATING**
- Health Hazard ...........: 1
- Fire Hazard .............: 1
- Reactivity ..............: 0
- Personal Protection......: X (Sec. 9)

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Alton Court, St. Louis, MO 63146-4151  
Product Name: Freez-Therm UH  
Synonyms: Uninhibited Ethylene Glycol

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
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<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol**</td>
<td>107-21-1</td>
<td>&gt;96</td>
<td>100 ppm</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>&lt;4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Subject to reporting requirements under SARA, Section 313, Title III
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: 2.2 mmHg@68°F
Evaporation Rate:
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: 325°F
Specific Gravity H₂O=1 @25° C:
Odor: Glycol

IV - FIRE AND EXPLOSION

Flash Point F: 246°F by TCC Flammable Limits: LFL: 3.2 by vol. % in air UFL: N/A
Extinguishing Media: Water fog, CO₂, dry chemical or foam
Special Fire Fighting Procedures: Material will not burn unless preheated. Cool fire-exposed containers with water. Wear appropriate protective clothing, gloves, helmet with face shield, and NIOSH approved self contained breathing apparatus.
Unusual Fire and Explosion Hazards: Combustion may produce carbon, CO, CO₂ and water. Dense smoke released when burned without sufficient oxygen.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable.
Incompatibility: Oxidizing materials and compounds.
Hazardous Decomposition Products: CO and unidentified organic compounds may be formed during combustion.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Product is moderately to severely irritating to the eyes; vapors can also cause severe eye irritation. SKIN: Product may be mildly irritating to the skin; repeated and prolonged contact may result in absorption through skin. INHALATION: Vapors may be mildly irritating to the lungs. INGESTION: Product may be harmful or fatal if swallowed. May produce central nervous system depression or kidney damage which may be fatal.
B. SUBCHRONIC, CHRONIC, OTHER: Excessive exposure may cause irritation to upper respiratory tract.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Preexisting skin, eye and respiratory disorders may be aggravated by exposure to product. Impaired kidney and liver functions from preexisting disorders may be aggravated by exposure to this product.
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.
EYES: Immediately flush eyes with water for at least 15 minutes while holding eyelids open. Get medical attention.
SKIN: Flush thoroughly with water. If irritation develops, get medical attention.
INGESTION: If swallowed, induce vomiting as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

VIII - SPILL OR LEAK PROCEDURE


Waste Disposal Methods: Landfill solids at permitted sites. Use registered transporters. Any disposal practice must be in compliance with all federal, state/provincial and local laws and regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If exposure exceeds occupational exposure limits, use NIOSH-approved respirator to prevent over-exposure.
Other Clothing and Equipment: When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.
Ventilation: Provide general and/or local exhaust ventilation to control airborne levels below their exposure guidelines.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Store in a cool, dry place with adequate ventilation. Keep away from flames and high temperatures. Wash with soap and water after handling/using and before eating, drinking, smoking or using toilet facilities. Launder contaminated clothing before reuse.
Additional Information: Keep out of the reach of children.
Material Safety Data Sheet
Gas Leak Detector

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Gas Leak Detector
Synonyms: Chemical Leak Detector

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol*</td>
<td>67-63-0</td>
<td>5</td>
<td>400ppm</td>
<td>400ppm</td>
</tr>
<tr>
<td>5840mg/kg Rat)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*STEL=500ppm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Unknown
Evaporation Rate: (ether=1): Unknown
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: Unknown
Specific Gravity H₂O=1 @25° C: 1.10 - 1.15

Vapor Density (Air=1) 60-90° F: Unknown
VOC Content (% by wt.): 5
pH @ Solution: N/A
pH as Distributed: N/A
Appearance: Clear solution
Odor: Isopropanol odor

IV - FIRE AND EXPLOSION

Flash Point F: 102°F Flammable Limits: Unknown
Extinguishing Media: In case of fire use CO₂
Foam or dry chemical.
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Heat and open flame.
Incompatibility: Can react violently with strong oxidizers.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: May cause irritation to both eyes and skin. INGESTION: Large quantities may cause upset to stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, contact a physician.
INGESTION: If swallowed, call a physician immediately.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Flush spill with water or wipe up and incinerate.
Waste Disposal Methods: Flush product waste down drain with plenty of water, rinse container and discard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None required
Eye Protection: Avoid eye contact Gloves: None required
Other Clothing and Equipment: None required.
Ventilation: Normal room ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Keep away from heat and open flame. Wash thoroughly after handling.
Additional Information: Read and observe all labeled precautions.

NFPA
Health Hazard ..........: 0
Fire Hazard ..............: 2
Reactivity ...............: 0
Specific Hazard ........: 

HMIS RATING
Health Hazard ...........: 0
Fire Hazard .............: 2
Reactivity ...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet  
Gas Leak Detector - Canada

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Gas Leak Detector - Canada  
Synonyms: Chemical Leak Detector

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
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</thead>
<tbody>
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<td>67-63-0</td>
<td>5</td>
<td>400ppm</td>
<td>400ppm</td>
</tr>
<tr>
<td>*STEL=500ppm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ingredients are TSCA listed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Unknown
Evaporation Rate: (ether=1): Unknown
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: Unknown
Specific Gravity H₂O=1 @25° C: 1.10 - 1.15
Vapor Density (Air=1) 60-90° F: Unknown
VOC Content (% by wt.): 5
pH @ Solution: N/A
pH as Distributed: N/A
Appearance: Clear solution
Odor: Isopropanol odor

IV - FIRE AND EXPLOSION

Flash Point F: 102°F
Extinguishing Media: In case of fire use CO₂, foam or dry chemical.
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Heat and open flame.
Incompatibility: Can react violently with strong oxidizers.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: May cause irritation to both eyes and skin. INGESTION: Large quantities may cause upset to stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, contact a physician.
INGESTION: If swallowed, call a physician immediately.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Flush spill with water or wipe up and incinerate.
Waste Disposal Methods: Flush product waste down drain with plenty of water, rinse container and discard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None required
Eye Protection: Avoid eye contact Gloves: None required
Other Clothing and Equipment: None required.
Ventilation: Normal room ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Keep away from heat and open flame. Wash thoroughly after handling.
Additional Information: Read and observe all labeled precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
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<tr>
<td></td>
<td>X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions. While Seller believes that the information contained herein is accurate, such information is offered solely for its customers’ consideration and verification under their specific use conditions.
**I - PRODUCT IDENTIFICATION**

**Company Name:** Nu-Calgon Wholesaler, Inc.
**Address:** 2008 Altom Court, St. Louis, MO 63146-4151
**Product Name:** Green Clean
**Synonyms:** General purpose cleaner

**Tel No:** (314) 469-7000, (800) 554-5499
**CHEMTREC:** (800) 424-9300
**Product Number:** 4186

---

**II - HAZARDOUS INGREDIENTS OF MIXTURES**

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dipropylene Glycol Methyl Ether</td>
<td>34590-94-8</td>
<td>&lt; 6</td>
<td>100 ppm</td>
<td>150 ppm</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>497-19-8</td>
<td>&lt; 6</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

---

**III - PHYSICAL DATA**

- **Vapor Pressure:** mm Hg: Not determined
- **Evaporation Rate:** (ether=1): ~same
- **Solubility in H₂O:** Complete
- **Freezing Point °F:** Unknown
- **Boiling Point °F:** 212°
- **Specific Gravity H₂O=1 @25° C:** 1.04
- **Vapor Density (Air=1) 60-90° F:** Not Deter.
- **VOC Content (% by wt.):** Not Determined
- **pH @ 25% Solution:** 8.0
- **pH as Distributed:** 11.7
- **Appearance:** Clear, green liquid
- **Odor:** Chemical

---

**IV - FIRE AND EXPLOSION**

- **Flash Point F:** None to boiling
- **Flammable Limits:** N/A
- **Extinguishing Media:** Product is not flammable or combustible.
- **Special Fire Fighting Procedures:** None known.
- **Unusual Fire and Explosion Hazards:** None

---

**V - REACTIVITY DATA**

- **Stability - Conditions to avoid:** None known; product is stable
- **Incompatibility:** Strong acids/oxidizers. Do not mix with chlorinated detergents
- **Hazardous Decomposition Products:** Burning may produce oxides of carbon
- **Conditions Contributing to Hazardous Polymerizations:** Will not occur.

---

**VI - HEALTH HAZARD DATA**

**EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),**

**A. ACUTE (Primary Route of Exposure):** Direct contact with eyes may cause mild to moderate irritation with local redness and swelling of conjunctiva. Prolonged or repeated skin contact may cause irritation. Ingestion may cause irritation of mouth, throat and stomach with possible nausea and vomiting. Excessive inhalation of vapors may cause respiratory tract irritation and central nervous system effects including headache and nausea.

**B. SUBCHRONIC, CHRONIC, OTHER:**

**C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:**

---

**VII - EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.

**EYES:** Flush with water for at least 15 minutes and call a physician immediately

**SKIN:** Wash with large amounts of soap and water. If irritation persists, consult a physician

**INGESTION:** Do NOT induce vomiting. Dilute by drinking water. Call a physician immediately.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Do not touch or walk through spilled material. Stop leak if you can without risk. Dike ahead of large spills to prevent run-off. Mop, pump or take up with sand or other inert absorbent and reclaim into containers for reuse, recycle, or proper disposal.

Waste Disposal Methods: Dispose of in an approved waste facility according to Federal, State and Local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not normally required
Eye Protection: Safety glasses Gloves: Rubber gloves ,PVC
Other Clothing and Equipment: None required.
Ventilation: Good general room ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: No special requirements if product is handled according to good manufacturing practices. Keep container closed when not in use. Wash thoroughly after handling.

Additional Information: Wash thoroughly after handling. KEEP OUT OF REACH OF CHILDREN.

NFPA
Health Hazard ...........: 1
Fire Hazard ............: 0
Reactivity .............: 0
Specific Hazard ......: 

HMIS RATING
Health Hazard ..........: 1
Fire Hazard ............: 0
Reactivity .............: 0
Personal Protection...: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Ice Guard
Synonyms: Heterogeneous Catalyst

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Oxide</td>
<td>1344-28-1</td>
<td>&gt;96</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Copper</td>
<td>7440-50-8</td>
<td>&lt;3</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Silver</td>
<td>7440-22-4</td>
<td>&lt;1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Solid
Evaporation Rate: N/A
Solubility in H₂O: Insoluble
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: Solid

IV - FIRE AND EXPLOSION

Flash Point F: Flammable Limits:
Extinguishing Media: Use extinguishing agent applicable to surrounding fire.
Special Fire Fighting Procedures: As in any fire, wear self-contained breathing apparatus operated in pressure-demand mode, (MSHA/NIOSH approved or equivalent) and full protective gear.
Unusual Fire and Explosion Hazards: May emit toxic fumes when heated to decomposition. Dusts at sufficient concentrations can form explosive mixtures with air.

V - REACTIVITY DATA

Stability - Conditions to avoid: Wet storage
Incompatibility: N/A
Hazardous Decomposition Products: N/A
Conditions Contributing to Hazardous Polymerizations: No

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): Inhalation may cause irritation of eyes and nose. Inhalation of fumes may cause metal fume fever (flu-like symptoms: fever, cough, chest pains, muscle weakness, nausea, vomiting, and a high white blood cell count).
B. SUBCHRONIC, CHRONIC, OTHER: Inhalation of high dust concentration may damage the respiratory tract. Aluminum oxide has been linked to emphysema and other respiratory diseases. Chronic ingestion of aluminum has been linked to central nervous system disorders including Alzheimer's Disease. Workers with kidney disease are at an increased risk. Individuals with lung diseases and/or kidney diseases should be protected from exposure.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: EYES: Scratch or abrasion, damage to cornea (necrosis). SKIN: Irritation, rash, itching, discoloration of the skin. INGESTION: May cause vomiting, upset stomach. INHALATION: Coughing, wheezing, shortness of breath, difficult breathing, chest pain.
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. Seek immediate medical attention.

EYES: Immediately flush eyes with plenty of water (15 minute minimum). Get medical attention if irritation persists.

SKIN: Wash with soap and water. Get medical attention if irritation develops or persists.

INGESTION: If swallowed, induce vomiting only as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Sweep up spilled material and repackage. Minimize airborne particulates. Protect against inhalation of dusts. Avoid contact with skin. Use eye protection.

Waste Disposal Methods: Dispose of in a landfill in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required for normal use.
Other Clothing and Equipment: N/A
Ventilation: Normal

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep product sealed when not in use. Store in a dry place. Exercise caution in the storage and handling of all chemical substances.

Additional Information: Read and observe all label precautions.

NFPA
Health Hazard ..........: 0
Fire Hazard..............: 0
Reactivity ..............: 0
Specific Hazard ......: 0

HMIS RATING
Health Hazard..........: 0
Fire Hazard ..........: 0
Reactivity .............: 0
Personal Protection..: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Icematic E100

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Icematic E100
Synonyms: Polyol Ester Lubricant

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>131459-39-7</td>
<td>99%</td>
<td>not list'd</td>
<td>not list'd</td>
</tr>
<tr>
<td>Antioxidant Additive Package</td>
<td>n/a without non-disclosure agreement</td>
<td>&lt;1%</td>
<td>not list'd</td>
<td>not list'd</td>
</tr>
</tbody>
</table>

Contains no SARA 313 compounds
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: (mmHg) negligible
Evaporation Rate: Negligible
Solubility in H₂O: Insoluble
Freezing Point °F: Not determined
Boiling Point °F: >500°F
Specific Gravity H₂O=1 @25° C: 0.98

Vapor Density (Air=1) 60-90° F: 5
VOC Content (% by wt.): negligible
pH @ not applicable
pH as Distributed: N/A
Appearance: Clear colorless liquid
Odor: Slight petroleum odor

IV - FIRE AND EXPLOSION

Flash Point F: 450°F min (method: PMCC) Flammable Limits: N/D
Extinguishing Media: Carbon dioxide, foam, dry chemical.
Special Fire Fighting Procedures:
Unusual Fire and Explosion Hazards:

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal conditions - none known.
Incompatibility: Strong oxidizers, heat and sources of ignition.
Hazardous Decomposition Products: Smoke, fumes, CO, CO₂
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: Can cause gastro-intestinal irritation, nausea, vomiting, abdominal pain & diarrhea. EYES & SKIN: May cause mild irritation. Prolonged or repeated skin contact may cause skin irritation, defatting. INHALATION: May cause nasal/respiratory irritation, dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: No obvious long-term hazards
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposure area to fresh air immediately. If breathing has stopped, perform CPR. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

EYES: Flush eyes with large amounts of clean water for at least 15 minutes. Contact a physician if irritation persists.

SKIN: Remove contaminated clothing. Wipe material from skin. Wash thoroughly with soap and water. If irritation develops, get medical attention. Wash contaminated clothing. Use skin cream for defatted areas.

INGESTION: Do not induce vomiting; aspiration hazard. Do not give anything by mouth. Do not leave victim unattended. If vomiting occurs, or if comatose or lethargic, place on the left side with the head down. Seek medical attention immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Large spills: wear appropriate protective clothing. Do not permit product to enter streams, sewers or other waterways. Dike spill and eliminate leak. Absorb with inert material and store in closed containers until disposal. Flush area with water. Where feasible, remove contaminated soil. Small spills: Neutralize and/or soak up spill with inert absorbent; store in closed containers until disposal.

Waste Disposal Methods: All recovered material should be packaged, labelled, transported, and disposed of or reclaimed in conformance with good engineering practices. Dispose of by method in compliance with local, state and federal regulations regarding health, air and water pollution. May be destroyed by controlled incineration.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH/MSHA Approved organic vapor respirator or supplied air respiratory equipment as required.

Eye Protection: Safety glasses with side-shields

Gloves: Neoprene gloves

Other Clothing and Equipment: Impervious protective clothing and chemical-resistant safety shoes should be worn to minimize contact. Emergency shower and eyewash facility should be provided in all areas in which this product is handled.

Ventilation: Provide sufficient mechanical, general and/or local exhaust to maintain exposure below TLV.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Maintain ambient temperatures. Avoid prolonged/repeated breathing of vapors, mists, fumes. Keep container tightly closed. Do not store near heat, flame, strong oxidants. Maintain adequate ventilation.

Additional Information: Keep out of the reach of children.

NFPA
Health Hazard............: 1
Fire Hazard..............: 1
Reactivity................: 0
Specific Hazard.........:

HMIS RATING
Health Hazard............: 1
Fire Hazard..............: 1
Reactivity................: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Icematic E68
Synonyms: Polyol Ester Lubricant

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4316-16

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>131459-39-7</td>
<td>99%</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Antioxidant Additive Package</td>
<td>n/a without non-disclosure agreement</td>
<td>&lt;1%</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

VOC Content: 0.01lbs./gallon (1.0 %)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Negligible
Evaporation Rate: (ether=1): Negligible
Solubility in H₂O: Not Soluble in Water
Freezing Point °F: N/A
Boiling Point °F: >500°F
Specific Gravity H₂O=1 @25° C: 0.98

Vapor Density (Air=1) 60-90° F: >5
VOC Content (% by wt.): Negligible
pH @ N/A Solution: N/A
pH as Distributed: N/A
Appearance: Clear, colorless liquid
Odor: Slight petroleum odor

IV - FIRE AND EXPLOSION

Flash Point F: >400°F (COC) Flammable Limits: ND
Extinguishing Media: Dry chemical, CO₂, Foam
Special Fire Fighting Procedures: Use water as fog or spray to cool containers exposed to fire. Wear self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Empty containers may contain product residue or vapors which can ignite explosively; do not cut, weld or drill on or near empty or full containers.

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable - avoid oxidizing agents, heat, open flame.
Incompatibility: None
Hazardous Decomposition Products: Smoke, fumes, CO₂, CO

Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: Can cause gastro-intestinal irritation, nausea, vomiting & diarrhea. EYES & SKIN: May cause mild irritation. Prolonged or repeated skin contact may cause skin irritation, defatting. INHALATION: May cause nasal/respiratory irritation, dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: N/A
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from area of exposure. Administer oxygen if deemed necessary. If breathing has stopped, administer CPR; contact physician.

EYES: Flush eyes with large amounts of clean water for at least 15 minutes. Contact a physician if irritation persists.

SKIN: Remove contaminated clothing. Wipe material from skin. Wash thoroughly with soap and water.

INGESTION: Do not induce vomiting; aspiration hazard. Consult a physician immediately. If vomiting occurs, or if comatose or lethargic, place on the left side with the head down. Consult a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Do not permit product to enter streams, sewers or other waterways. Dike spill and eliminate leak. Absorb with inert material and store in closed containers until disposal.

Waste Disposal Methods: All recovered material should be packaged, labelled, transported, and disposed of or reclaimed in conformance with good engineering practices. Dispose of by method in compliance with local, state and federal regulations regarding health, air and water pollution. May be destroyed by controlled incineration.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH/MSHA Approved organic vapor respirator or supplied air respiratory equipment as required.

Eye Protection: Safety glasses Gloves: Resistant type gloves

Other Clothing and Equipment: N/A

Ventilation: Provide sufficient mechanical, general and/or local exhaust to maintain exposure below TLV. Greater than 60 +3/Min. recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Maintain ambient temperatures. Avoid prolonged/repeated breathing of vapors, mists, fumes. Keep container tightly closed. Do not store near heat, flame, strong oxidants. Maintain adequate ventilation.

Additional Information: Do not wear contaminated clothing. Launder before re-use or discard. Do not take any food or drink, or handle tobacco products while in contact with this product. Wash thoroughly after use.

NFPA
Health Hazard ..........: 0
Fire Hazard.............: 1
Reactivity ..............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 0
Fire Hazard .............: 1
Reactivity ..............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Icematic SW 100  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4317

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>131459-39-7</td>
<td>99%</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Antioxidant Additive Package</td>
<td>n/a without non-disclosure agreement</td>
<td>&lt;1%</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

VOC Content: 0.01lbs./gallon (1.0 %)  
All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>Negligible</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Negligible</td>
</tr>
<tr>
<td>Solubility in H₂O:</td>
<td>Not soluble in Water</td>
</tr>
<tr>
<td>Freezing Point °F:</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °F:</td>
<td>&gt;500°F</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C:</td>
<td>0.98</td>
</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F:</td>
<td>&gt;5</td>
</tr>
<tr>
<td>VOC Content (% by wt.):</td>
<td>Negligible</td>
</tr>
<tr>
<td>pH @ Solution:</td>
<td>N/A</td>
</tr>
<tr>
<td>pH as Distributed:</td>
<td>N/A</td>
</tr>
<tr>
<td>Appearance:</td>
<td>Clear, colorless liquid</td>
</tr>
<tr>
<td>Odor:</td>
<td>Slight petroleum odor</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point °F: >450°F (COC)  
Flammable Limits: ND  
Extinguishing Media: Dry chemical, CO₂, Foam  
Special Fire Fighting Procedures: Use water as fog or spray to cool containers exposed to fire. Wear self-contained breathing apparatus.  
Unusual Fire and Explosion Hazards: Empty containers may contain product residue or vapors which can ignite explosively; do not cut, weld or drill on or near empty or full containers.

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable - avoid oxidizing agents, heat, open flame  
Incompatibility: Strong oxidizers, heat and sources of ignition.  
Hazardous Decomposition Products: Smoke, fumes, CO, CO₂.  
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects).  
A. ACUTE (Primary Route of Exposure): INGESTION: Can cause gastro-intestinal irritation, nausea, vomiting & diarrhea. EYES & SKIN: May cause mild irritation. Prolonged or repeated skin contact may cause skin irritation, defatting. INHALATION: May cause nasal/respiratory irritation, dizziness.  
B. SUBCHRONIC, CHRONIC, OTHER: N/A  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from area of exposure. Administer oxygen if deemed necessary. If breathing has stopped, administer CPR; contact physician. Keep person warm and at rest. Treat symptomatically and supportively.

EYES: Flush eyes with large amounts of clean water for at least 15 minutes. Contact a physician if irritation persists.

SKIN: Remove contaminated clothing. Wash thoroughly with soap and water. Contact a physician if irritation persists. Use skin cream for defatted areas.

INGESTION: Do not induce vomiting; aspiration hazard. If vomiting occurs, or if comatose or lethargic, place on the left side with the head down. Consult a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Do not permit product to enter streams, sewers or other waterways. Dike spills and eliminate leak. Absorb with inert material and store in closed containers until disposal.

Waste Disposal Methods: All recovered material should be packaged, labeled, transported, and disposed of or reclaimed in conformance with good engineering practices. Dispose of by method in compliance with local, state and federal regulations regarding health, air and water pollution. May be destroyed by controlled incineration.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH/MSHA Approved organic vapor respirator or supplied air respiratory equipment as required.

Eye Protection: Safety goggles

Gloves: Resistant type gloves

Other Clothing and Equipment: N/A

Ventilation: Provide sufficient mechanical, general and/or local exhaust to maintain exposure below TLV. Greater than 60+ 3/Min. recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Maintain ambient temperatures. Avoid prolonged/repeated breathing of vapors, mists, fumes. Keep container tightly closed. Do not store near heat, flame, strong oxidants. Maintain adequate ventilation.

Additional Information: Do not wear contaminated clothing. Launder before re-use or discard. Do not take any food or drink, or handle tobacco products while in contact with this product. Wash thoroughly after use.

NFPA
Health Hazard ............: 1
Fire Hazard...............: 1
Reactivity .................: 0
Specific Hazard .........: X (Sec. 9)

HMIS RATING
Health Hazard...............: 1
Fire Hazard ...............: 1
Reactivity ...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions. While Seller believes that the information contained herein is accurate, such information is offered solely for its customers' consideration and verification under their specific use conditions.
Material Safety Data Sheet
Icematic SW 220

I - PRODUCT IDENTIFICATION
Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Icematic SW 220
Synonyms: Polyol Ester Lubricant

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4318-05

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>131459-39-7</td>
<td>99%</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Antioxidant Additive Package</td>
<td>n/a without non-disclosure agreement</td>
<td>&lt;1%</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

VOC Content: 0.01lbs./gallon (1.0 %)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Negligible
Evaporation Rate: Negligible
Solubility in H₂O: Insoluble
Freezing Point °F: Not determined
Boiling Point °F: >500°
Specific Gravity H₂O=1 @25° C: 0.9800

Vapor Density (Air=1) 60-90° F: >5
VOC Content (% by wt.): Negligible
pH @ Solution: N/A
pH as Distributed: N/A
Appearance: Clear colorless
Odor: Slight petroleum odor

IV - FIRE AND EXPLOSION

Flash Point F: >464°F 240°C Flammable Limits: N/D N/D
Extinguishing Media: Dry chemical, foam, carbon dioxide
Special Fire Fighting Procedures: Water or foam may cause frothing. Use water to keep fire-exposed container cool. Water spray may be used to flush spills away from exposure. Firefighters must use self-contained breathing apparatus. Prevent run-off from fire control from entering streams or drinking water supply.
Unusual Fire and Explosion Hazards:

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable under normal conditions - avoid oxidizing agents, heat, open flame.
Incompatibility: None
Hazardous Decomposition Products: Smoke, fumes, CO, CO₂
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: Can cause gastro-intestinal irritation, nausea, vomiting & diarrhea. EYES & SKIN: May cause mild irritation. Prolonged or repeated skin contact may cause skin irritation, defatting. INHALATION: May cause nasal/respiratory irritation, dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: None
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: See acute effects above.
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from area of exposure to fresh air immediately. Administer oxygen if deemed necessary. If breathing has stopped, administer CPR; keep person warm and at rest. Contact physician immediately.

EYES: Flush eyes with large amounts of clean water for at least 15 minutes. Contact a physician if irritation persists.

SKIN: Remove contaminated clothing. Wipe material from skin. Wash thoroughly with soap and water. If irritation persists, get medical attention. Wash clothing before reuse. Use skin cream for defatted areas.

INGESTION: Aspiration hazard. Do not induce vomiting or give anything by mouth. Do not leave victim unattended. If vomiting occurs or if comatosa or lethargic, place on the left side with head down Consult a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Do not permit product to enter streams, sewers or other waterways. Dike spill and eliminate leak. Absorb with inert material and store in closed containers until disposal.

Waste Disposal Methods: All recovered material should be packaged, labelled, transported, and disposed of or reclaimed in conformance with good engineering practices. Dispose of by method in compliance with local, state and federal regulations regarding health, air and water pollution. May be destroyed by controlled incineration.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH/MSHA Approved organic vapor respirator or supplied air respiratory equipment as required.

Eye Protection: Safety glasses

Gloves: Neoprene-type gloves

Other Clothing and Equipment: Impervious protective clothing and chemical-resistant safety shoes to minimize contact. Emergency shower and eye wash facility should be provided.

Ventilation:

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Maintain ambient temperatures. Avoid prolonged/repeated breathing of vapors, mists, fumes. Keep container tightly closed. Do not store near heat, flame, strong oxidants. Maintain adequate ventilation.

Additional Information: Do not wear contaminated clothing. Launder before re-use or discard. Do not take any food or drink, or handle tobacco products while in contact with this product. Wash thoroughly after use.

NFPA

Health Hazard...........: 1
Fire Hazard...............: 1
Reactivity ................: 0
Specific Hazard .........:

HMIS RATING

Health Hazard............: 1
Fire Hazard ...............: 1
Reactivity ...............: 0
Personal Protection.....: X (Sec. 9)

Revision Date: 8/6/2004

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions. While Seller believes that the information contained herein is accurate, such information is offered solely for its customers' consideration and verification under their specific use conditions.
Material Safety Data Sheet
Icematic SW 32

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Icematic SW 32
Synonyms: Polyol Ester Lubricant

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4314

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>131459-39-7</td>
<td>99%</td>
<td></td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Antioxidant Additive Package</td>
<td>n/a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC Content: 0.01lbs./gallon (1.0 %)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Negligible
Evaporation Rate: (ether=1): Negligible
Solubility in H₂O: Not Soluble in Water
Freezing Point °F: N/A
Boiling Point °F: >500°F
Specific Gravity H₂O=1 @25° C: 0.98
Vapor Density (Air=1) 60-90° F: >5
VOC Content (% by wt.): Negligible
pH @ N/A Solution: N/A
pH as Distributed: N/A
Appearance: Clear, colorless liquid
Odor: Slight petroleum odor

IV - FIRE AND EXPLOSION

Flash Point F: >400°F (COC) Flammable Limits: ND
Extinguishing Media: Dry chemical, CO₂ Foam
Special Fire Fighting Procedures: Water or foam may cause frothing. Use water as fog or spray to cool containers exposed to fire. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, wear self-contained breathing apparatus. Prevent runoff from fire control or dilution from entering streams or drinking water supply.
Unusual Fire and Explosion Hazards: Empty containers may contain product residue or vapors which can ignite explosively; do not cut, weld or drill on or near empty or full containers.

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable - avoid oxidizing agents, heat, open flame.
Incompatibility: None
Hazardous Decomposition Products: Smoke, fumes, CO, CO₂
Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: Can cause gastro-intestinal irritation, nausea, vomiting, diarrhea and abdominal pain. EYES & SKIN: May cause mild irritation. Prolonged or repeated skin contact may cause skin irritation, defatting. INHALATION: May cause nasal/respiratory irritation, dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: N/A
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from area of exposure to fresh air immediately. Administer oxygen if deemed necessary. If breathing has stopped, administer CPR. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

EYES: Flush eyes with large amounts of clean water for at least 15 minutes. Contact a physician if irritation persists.

SKIN: Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water. Get medical attention if irritation persists. Use skin cream for defatted areas.

INGESTION: Aspiration hazard. Do not induce vomiting or give anything mouth because this material can enter the lungs and cause severe damage. Do not leave victim unattended. If vomiting occurs, or if comatose or lethargic, place on the left side with the head down. Seek immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Large Spills: wear appropriate protective clothing. Stop source of leak if possible. Dike, contain spill and recover free liquid. Prevent entry into waterways. Soak up residue with an inert material such as clay, sand or other suitable materials; store and dispose of properly. Flush area with water. Where feasible and appropriate, remove contaminated soil. Small Spills: Neutralize and/or soak up spill with inert absorbent. Store in a closed container and dispose of properly.

Waste Disposal Methods: All recovered material should be packaged, labelled, transported, and disposed of or reclaimed in conformance with good engineering practices. Dispose of by method in compliance with local, state and federal regulations regarding health, air and water pollution. May be destroyed by controlled incineration.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH/MSHA Approved organic vapor respirator or supplied air respiratory equipment as required. 
Eye Protection: Safety glasses Gloves: Resistant type gloves 
Other Clothing and Equipment: N/A

Ventilation: Provide sufficient mechanical, general and/or local exhaust to maintain exposure below TLV. Greater than 60 cu.ft. per minute is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Maintain ambient temperatures. Avoid prolonged/repeated breathing of vapors, mists, fumes. Keep container tightly closed. Do not store near heat, flame, strong oxidants. Maintain adequate ventilation.

Additional Information: Do not wear contaminated clothing. Launder before re-use or discard. Do not take any food or drink, or handle tobacco products while in contact with this product. Wash thoroughly after use.

NFPA 
Health Hazard............: 1
Fire Hazard...............: 1
Reactivity ...............: 0
Specific Hazard ..........: 

HMIS RATING 
Health Hazard.............: 1
Fire Hazard ...............: 1
Reactivity ...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Icematic SW 32C
Synonyms: Polyol Ester Lubricant

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4314-C

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
</table>

Contains no other ingredients now known to be hazardous as defined by OSHA. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Negligible
Evaporation Rate: Negligible
Solubility in H₂O: Insoluble
Freezing Point °F: N/A
Boiling Point °F: >500°F
Specific Gravity H₂O=1 @25° C: 0.9800 +/-

Vapor Density (Air=1) 60-90° F: >5
VOC Content (% by wt.): Not tested
pH @ N/A Solution: N/A
pH as Distributed: N/A
Appearance: Clear colorless liquid
Odor: Slight petroleum odor

IV - FIRE AND EXPLOSION

Flash Point F: 400°F min./203°C min.
Flammable Limits: ND ND
Extinguishing Media: Carbon dioxide, dry chemical or foam
Special Fire Fighting Procedures: Water or foam may cause frothing. Use water to keep fire exposed container cool. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, firefighters must use self-contained breathing apparatus. Prevent run-off from fire control or dilution from entering streams or drinking water supply.
Unusual Fire and Explosion Hazards: Smoke, fumes, CO, CO₂

V - REACTIVITY DATA

Stability - Conditions to avoid: None known, Stable under normal conditions
Incompatibility: Strong oxidizers, heat and sources of ignition.
Hazardous Decomposition Products: Smoke, fumes, CO, CO₂
Conditions Contributing to Hazardous Polymerizations: N/A

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: May cause gastrointestinal distress with symptoms of nausea, vomiting, diarrhea, and abdominal pain. EYES & SKIN: May cause irritation INHALATION: Vapor may be irritating to the respiratory tract.
B. SUBCHRONIC, CHRONIC, OTHER: N/A
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: N/A
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from exposed area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

EYES: In case of contact, flush eyes with plenty of water. Get medical attention if irritation occurs.

SKIN: In case of contact, wash skin with plenty of soap and water. Remove contaminated clothing. Get medical attention if irritation persists. Wash clothing before reuse. Use skin cream for defatted areas.

INGESTION: Aspiration hazard: DO NOT INDUCE VOMITING or give anything by mouth because this material can enter the lungs or cause severe damage. Do not leave victim unattended. If vomiting occurs, or if comatose or lethargic, place on the left side with the head down. Seek immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Large spills: wear appropriate protective clothing. Stop source of leak if possible. Dike, contain spill and recover free liquid. Prevent entry into waterways. Soak up residue with an inert absorbent such as clay, sand or other suitable materials. Store and dispose of properly. Flush area with water. Where feasible and appropriate, remove contaminated soil. Small spills: Neutralize and/or soak up spill with inert absorbent. Store in a closed container and dispose of properly.

Waste Disposal Methods: Dispose of in accordance with local, state and federal regulations. Disposal of this material to the land may be banned by federal law (40 CFR 268).

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Good industrial hygiene practices recommend that engineering controls be used to reduce environmental concentrations to the threshold limit value (TLV), if applicable. If an applicable TLV is exceeded provide NIOSH approved respiratory protection. Provide sufficient mechanical, general, and/or local exhaust to maintain exposure below any applicable TLV or PEL.

Eye Protection: Safety glasses w/side shield or Chemical goggles Gloves: Use neoprene type gloves when handling this product.

Other Clothing and Equipment: Impervious protective clothing and chemical resistant safety shoes should be worn to minimize contact. Wash contaminated clothing with soap and water and dry before reuse. Emergency shower and eyewash facility should be provided in all areas in which this product is handled.

Ventilation: Maintain adequate ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Maintain ambient temperatures. Avoid prolonged/repeated breathing of vapors, mists, fumes. Keep container tightly closed. Do not store near heat, flame, strong oxidants.

Additional Information: No component known to be present in this product at >0.1% is presently listed as a carcinogen by IARC, NTP or OSHA.

NFPA
Health Hazard ...........: 1
Fire Hazard.............: 1
Reactivity ...............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard..........: 1
Fire Hazard ..........: 1
Reactivity ..........: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Icematic SW 68
Synonyms: Polyol Ester Lubricant

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
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<tr>
<td>Polyol Ester</td>
<td>131459-39-7</td>
<td>99%</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
<tr>
<td>Antioxidant Additive Package</td>
<td>n/a without non-disclosure agreement</td>
<td>&lt;1%</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

VOC Content: 0.01lbs./gallon (1.0 %)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Negligible
Evaporation Rate: (ether=1):Negligible
Solubility in H₂O: <0.1%
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: 0.97
Vapor Density (Air=1) 60-90° F: >5
VOC Content (% by wt.): Negligible
pH @ N/A Solution: N/A
pH as Distributed: N/A
Appearance: Clear, colorless liquid
Odor: Slight petroleum odor

IV - FIRE AND EXPLOSION

Flash Point °F: >464°F (COC) Flammable Limits: ND
Extinguishing Media: Dry chemical, CO₂: Foam
Special Fire Fighting Procedures: Water or foam may cause frothing. Use water as fog or spray to cool containers exposed to fire. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, wear self-contained breathing apparatus. Prevent runoff from fire control or dilution from entering streams or drinking water supply.
Unusual Fire and Explosion Hazards: Empty containers may contain product residue or vapors which can ignite explosively; do not cut, weld or drill on or near empty or full containers.

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable under normal conditions - avoid oxidizing agents, heat, open flame.
Incompatibility: Strong oxidizers, heat and sources of ignition.
Hazardous Decomposition Products: Smoke, fumes, CO, CO₂
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: Can cause gastro-intestinal irritation, nausea, vomiting & diarrhea. EYES & SKIN: May cause mild irritation. Prolonged or repeated skin contact may cause skin irritation, defatting. INHALATION: May cause nasal/respiratory irritation, dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: N/A
C. MEDICAL CONDITIONS AGgravATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from area of exposure to fresh air immediately. Administer oxygen if deemed necessary. If breathing has stopped, administer CPR. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.

EYES: Flush eyes with large amounts of clean water for at least 15 minutes. Contact a physician if irritation persists.

SKIN: Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water. Get medical attention if irritation persists. Use skin cream for defatted areas.

INGESTION: Aspiration hazard. Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe damage. Do not leave victim unattended. If vomiting occurs, or if comatose or lethargic, place on the left side with the head down. Seek immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Large Spills: wear appropriate protective clothing. Stop source of leak if possible. Dike, contain spill and recover free liquid. Prevent entry into waterways. Soak up residue with an inert material such as clay, sand or other suitable materials; store and dispose of properly. Flush area with water. Where feasible and appropriate, remove contaminated soil. Small Spills: Neutralize and/or soak up spill with inert absorbent. Store in a closed container and dispose of properly.

Waste Disposal Methods: All recovered material should be packaged, labelled, transported, and disposed of or reclaimed in conformance with good engineering practices. Dispose of by method in compliance with local, state and federal regulations regarding health, air and water pollution. May be destroyed by controlled incineration.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH/MSHA Approved organic vapor respirator or supplied air respiratory equipment as required.

Eye Protection: Safety glasses

Gloves: Neoprene type gloves

Other Clothing and Equipment: N/A

Ventilation: Provide sufficient mechanical, general and/or local exhaust to maintain exposure below TLV. Greater than 60 cu ft/min. recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Maintain ambient temperatures. Avoid prolonged/repeated breathing of vapors, mists, fumes. Keep container tightly closed. Do not store near heat, flame, strong oxidants. Maintain adequate ventilation.

Additional Information: Do not wear contaminated clothing. Launder before re-use or discard. Do not take any food or drink, or handle tobacco products while in contact with this product. Wash thoroughly after use.

NFPA

Health Hazard ..........: 1
Fire Hazard.............: 1
Reactivity ..............: 0
Specific Hazard ........:

HMIS RATING

Health Hazard...........: 1
Fire Hazard.............: 1
Reactivity...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgan Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Icematic SW 68C
Synonyms: Refrigeration Oil

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4316-04

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
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</thead>
<tbody>
<tr>
<td>Polyol Ester</td>
<td>131459-39-7</td>
<td>99%</td>
<td>Not listed</td>
<td>99%</td>
</tr>
<tr>
<td>Antioxidant Additive Package</td>
<td>n/a without non-disclosure agreement</td>
<td>&lt;1%</td>
<td>Not listed</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

Contains no SARA 313 listed chemicals
VOC Content: 0.01lbs./gallon (1.0 %)
All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>Negligible</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Negligible</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Not soluble</td>
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<tr>
<td>Freezing Point °F</td>
<td>Not determined</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>&gt; 500°F</td>
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<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>0.9800</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point °F: >400°F (COC) Flammable Limits: N/D N/D
Extinguishing Media: Dry chemical, CO₂ Foam
Special Fire Fighting Procedures: Water or foam may cause frothing. Use water to keep fire-exposed container cool. Water spray may be used to flush spills away from exposure. Firefighters must use self-contained breathing apparatus. Prevent run-off from fire control from entering streams or drinking water supply.
Unusual Fire and Explosion Hazards: Empty containers may contain product residue or vapors which can ignite explosively; do not cut, weld or drill on or near empty or full containers.

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is stable under normal conditions - avoid oxidizing agents, heat, open flame.
Incompatibility: None
Hazardous Decomposition Products: Smoke, fumes, CO, CO₂
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: Can cause gastrointestinal irritation, nausea, vomiting & diarrhea. EYES & SKIN: May cause mild irritation. Prolonged or repeated skin contact may cause skin irritation, defatting. INHALATION: May cause nasal/respiratory irritation, dizziness.
B. SUBCHRONIC, CHRONIC, OTHER: None
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: See acute effects above.
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove from area of exposure to fresh air immediately. Administer oxygen if deemed necessary. If breathing has stopped, administer CPR; keep person warm and at rest. Contact physician immediately.

EYES: Flush eyes with large amounts of clean water for at least 15 minutes. Contact a physician if irritation persists.

SKIN: Remove contaminated clothing. Wipe material from skin. Wash thoroughly with soap and water. If irritation persists, get medical attention. Wash clothing before reuse. Use skin cream for defatted areas.

INGESTION: Aspiration hazard. Do not induce vomiting or give anything by mouth. Do not leave victim unattended. If vomiting occurs or if comatose or lethargic, place on the left side with head down Consult a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Do not permit product to enter streams, sewers or other waterways. Dike spill and eliminate leak. Absorb with inert material and store in closed containers until disposal.

Waste Disposal Methods: All recovered material should be packaged, labelled, transported, and disposed of or reclaimed in conformance with good engineering practices. Dispose of by method in compliance with local, state and federal regulations regarding health, air and water pollution. May be destroyed by controlled incineration.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH/MSHA Approved organic vapor respirator or supplied air respiratory equipment as required.

Eye Protection: Safety glasses

Gloves: Neoprene type gloves

Other Clothing and Equipment: Impervious protective clothing and chemical-resistant safety shoes to minimize contact. Emergency shower and eye wash facility should be provided.

Ventilation: Provide sufficient mechanical, general and/or local exhaust to maintain exposure below TLV. Greater than 60 cu ft/min. recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Maintain ambient temperatures. Avoid prolonged/repeated breathing of vapors, mists, fumes. Keep container tightly closed. Do not store near heat, flame, strong oxidants. Maintain adequate ventilation.

Additional Information: Do not wear contaminated clothing. Launder before re-use or discard. Do not take any food or drink, or handle tobacco products while in contact with this product. Wash thoroughly after use.

NFPA

Health Hazard ..........: 1
Fire Hazard ............: 1
Reactivity .............: 0
Specific Hazard ......: 0

HMIS RATING

Health Hazard.......... : 1
Fire Hazard ..........: 1
Reactivity ............: 0
Personal Protection.... : X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Imperial Scale Remover

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Imperial Scale Remover
Synonyms: Sulfamic Acid

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4360-84

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfamic Acid (ORAL LD50 - Rat 1600mg/kg)</td>
<td>5329-14-6</td>
<td>97</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: N/A
- Evaporation Rate: (ether=1): N/A
- Solubility in H₂O: Appreciable
- Freezing Point °F: N/A
- Boiling Point °F: N/A
- Specific Gravity H₂O=1 @25° C: N/A
- Vapor Density (Air=1) 60-90° F: N/A

VOC Content (% by wt.):
- pH @ 1% Solution: 1.25
- pH as Distributed: N/A
- Appearance: Purple flowing granules
- Odor: Pungent odor

IV - FIRE AND EXPLOSION

- Flash Point F: N/A
- Flammable Limits: N/A
- Extinguishing Media: Product is non flammable. In the event of fire, use water, chemical foam, dry chemical, CO₂.
- Special Fire Fighting Procedures: Water solutions of this compound result in strong acids.
- Unusual Fire and Explosion Hazards: May release SO₂, SO₃ or NH₃ gases if involved in a fire.

V - REACTIVITY DATA

- Stability - Conditions to avoid: If heated releases SO₂, SO₃ or NH₃ gases.
- Incompatibility: Alkali, chlorine sources (bleaches).
- Hazardous Decomposition Products: Unknown.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure):
   - EYES & SKIN: Causes burns to both eyes and skin. INGESTION: Harmful if swallowed. Will burn mouth, throat and stomach. INHALATION: Irritates nose, throat and skin.

B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Call a physician.
EYES: Flush eyes with plenty of water for at least 15 minutes. Call a physician.
SKIN: Flush skin with plenty of water for at least 15 minutes. If irritation develops, call a physician.
INGESTION: DO NOT induce vomiting. Give large quantities of water. Give at least 1 ounce of milk of magnesia or aluminum hydroxide gel in equal amounts of water. If not available, the whites of 2 - 3 eggs may be used. Never give anything by mouth to an unconscious person. Call a physician.
VIII - SPILL OR LEAK PROCEDURE

**Spill Management:** Cautiously cover spill with bicarbonate of soda or soda ash - slaked lime mixture (50 - 50). Mix and flush to discharge using plenty of water in accordance with local, state and federal laws.

**Waste Disposal Methods:** Cautiously stir product waste in large volume of soda ash - slaked lime solution. Flush neutralized solution and discharge in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

**Respiratory:** NIOSH - approved filter respirator recommended in case of dust.

**Eye Protection:** Goggles or face shield

**Gloves:** Rubber gloves

**Other Clothing and Equipment:** Wash protective clothing.

**Ventilation:** Local and mechanical exhaust is recommended.

X - SPECIAL PRECAUTIONS

**Precautions to be taken in Handling and Storing:** Do not get in eyes, on skin or clothing. Keep from contact with chlorine bleaches. Wash thoroughly after handling. Keep container dry.

**Additional Information:** Read and observe all label precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard........</td>
<td>Health Hazard...........</td>
</tr>
<tr>
<td>Fire Hazard...........</td>
<td>Fire Hazard...............</td>
</tr>
<tr>
<td>Reactivity...............</td>
<td>Reactivity...............</td>
</tr>
<tr>
<td>Specific Hazard.......</td>
<td>Personal Protection....</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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Material Safety Data Sheet
IMS-II Ice Machine Sanitizer

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: IMS-II Ice Machine Sanitizer

Synonyms: Industrial Sanitizer
EPA Reg No. 1839-50-65516
EPA Est. No. 72026-IL-01

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4211

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicic Acid-Sodium Salt</td>
<td>1344-09-8</td>
<td>1.8</td>
<td>2.0mg/m3</td>
<td>N/A</td>
</tr>
<tr>
<td>Alkyl Dimethyl Benzyl Ammonium Chloride</td>
<td>68391-01-5</td>
<td>0.8</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Chloride</td>
<td>68956-79-6</td>
<td>0.8</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A
Evaporation Rate: (ether=1) N/A
Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.): <5%
Solubility in H2O: Complete
pH @ 100% Solution: 13.0
Freezing Point °F: N/A
pH as Distributed: N/A
Boiling Point °F: Like Water.
Appearance: Clear colorless liquid
Odor: Slight chemical odor.
Specific Gravity H2O=1 @25° C: 1.08

IV - FIRE AND EXPLOSION

Flash Point °F: Non flammable
Flammable Limits: N/A
Extinguishing Media: Product is non flammable or combustible. Use media appropriate for the primary source of fire.
Special Fire Fighting Procedures: Use caution when fighting any fire involving chemicals. Wear self-contained breathing apparatus in the event of a fire.
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable.
Incompatibility: Strong acids or oxidizers. Do not mix with chlorinated detergents or sanitizers.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: This product may result in transient irritation of reddening on contact with eye. SKIN: (Primary Route of Exposure) Product may result in irritation upon contact with skin.
INHALATION: Inhalation of concentrated mist or vapor may result in irritation of the nose, throat and lungs.
INGESTION: Ingestion may cause nausea, vomiting, diarrhea and mucousal irritation.

B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.

EYES: Flush eyes with water for at least 15 minutes and call a physician immediately.

SKIN: Wash affected areas with large amounts of soap and water. If irritation persists call a physician.

INGESTION: Do not induce vomiting. Dilute by drinking water. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Safety stop spill at source. Contain spill by diking with soil or other inert material. Mop, pump or absorb with material and reclaim into sound containers for proper disposal.

Waste Disposal Methods: Dispose of in an approved waste facility according to Federal, State and local regulations. See label for specifics.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required.


Other Clothing and Equipment: Rubber apron if splashing potential exists.

Ventilation: Local and mechanical exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: DANGER! Do not expose product to excessive heat or near freezing temperatures. Handle all containers carefully. Triple rinse all empty containers to remove all residual product. Wash thoroughly after handling. Follow label directions as to storage and disposal.

Additional Information: None.

NFPA
Health Hazard ...........: 1
Fire Hazard..............: 0
Reactivity ..............: 0
Specific Hazard ........:  

HMIS RATING
Health Hazard ..........: 1
Fire Hazard .........: 0
Reactivity ..........: 0

Personal Protection ....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Insulation Cords & Slugs
Synonyms: Thumbing-Grade Insulation Material.
Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4216

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate (ether=1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>N/A</td>
</tr>
<tr>
<td>Freezing Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>1.30 +/- .05 g/cc</td>
</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F</td>
<td>N/A</td>
</tr>
<tr>
<td>VOC Content (% by wt.)</td>
<td>N/A</td>
</tr>
<tr>
<td>pH @ N/A Solution</td>
<td>N/A</td>
</tr>
<tr>
<td>pH as Distributed</td>
<td>N/A</td>
</tr>
<tr>
<td>Appearance</td>
<td>Soft, pliable, pressure sensitive material.</td>
</tr>
<tr>
<td>Odor</td>
<td></td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point °F</td>
<td>&gt;450°F</td>
</tr>
<tr>
<td>Flammable Limits</td>
<td>N/A</td>
</tr>
<tr>
<td>Extinguishing Media</td>
<td>Foam, CO₂, Dry Chemicals.</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures</td>
<td>Water unsuited for rubber fires.</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards</td>
<td>None</td>
</tr>
</tbody>
</table>

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable; High temperature yields decomposition to isobutene.
Incompatibility: Oxygen supplying chemicals and contact with acid clays at elevated temperatures.
Hazardous Decomposition Products: CO, CO₂, H₂O, and isobutene.
Conditions Contributing to Hazardous Polymerizations: May not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: N/A, EYES & SKIN: N/A
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

 VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush with plenty of water.
SKIN: Flush with plenty of water.
INGESTION: N/A

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Repackage uncontaminated tape. Dispose of contaminated or unusable tape.
Waste Disposal Methods: Bury tape in an approved land fill site.
IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: N/A
Eye Protection: N/A  Gloves: N/A
Other Clothing and Equipment: N/A
Ventilation: N/A

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Prevent high temperature exposure.
Additional Information: None

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard ........: 0</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard ..........: 0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity ...........: 0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Kleen-n-Toss
Synonyms: Waterless Hand Cleaner Towel

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4230

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adepsine Oil</td>
<td>8052-41-3</td>
<td>N/A</td>
<td>100ppm</td>
<td>100ppm</td>
</tr>
</tbody>
</table>

This product is not known to contain any compound in concentrating requiring reporting under SARA Title III, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: Dispersible
Freezing Point °F: N/A
Boiling Point °F: 212°
Specific Gravity H₂O=1 @25° C: 0.97

Vapor Density (Air=1) 60-90° F: >1
VOC Content (% by wt.): pH @ 100% Solution: 8.25 +/- 0.5
pH as Distributed:
Appearance: Opaque white liquid saturated onto towels
Odor: Citrus (orange)

IV - FIRE AND EXPLOSION

Flash Point F: None to boiling Flammable Limits: No data
Extinguishing Media: CO₂, dry chemical, foam, fog or water spray.
Special Fire Fighting Procedures: Keep containers cool and vapors down with water spray.
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Strong oxidizers and acids
Hazardous Decomposition Products: CO, CO₂, H₂S, sulfur dioxide, smoke, soot
Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: May cause irritation of throat or stomach, nausea, vomiting and diarrhea if swallowed. EYES: May cause irritation.
B. SUBCHRONIC, CHRONIC, OTHER: Pre-existing skin conditions may be aggravated.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: &
SKIN: Flush with water for 15 minutes, lifting eyelids. See a physician immediately.
INGESTION: Not a likely exposure route. If a large quantity of liquid is swallowed, do not induce vomiting. Call a physician or poison center immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Caution: slip hazard. Wipe up small releases with a dry absorbent. For large releases, prevent material from entering sewers or drains.
Waste Disposal Methods: Consult local, state or federal regulations. Discard empty container.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None
Eye Protection: None Gloves: None
Other Clothing and Equipment: Not usually necessary.
Ventilation: Nothing special usually needed.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: For external use only. Do not allow to contact eyes. Do not smoke while using - not for use around mouth or eyes.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 1</td>
<td>Health Hazard ............: 1</td>
</tr>
<tr>
<td>Fire Hazard .............: 1</td>
<td>Fire Hazard ..............: 1</td>
</tr>
<tr>
<td>Reactivity ...............: 0</td>
<td>Reactivity ................: 0</td>
</tr>
<tr>
<td>Specific Hazard ..........:</td>
<td>Personal Protection ....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Liquid Ice Machine Cleaner

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Liquid Ice Machine Cleaner
Synonyms: Phosphoric Acid

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td># Phosphoric Acid*</td>
<td>7664-38-2</td>
<td>75</td>
<td>1mg/m3</td>
<td>1mg/m3</td>
</tr>
<tr>
<td>(ORAL LD50 1530 mg/kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(DERMAL LD50 2740mg/kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>*STEL=3mg/m3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Ingredient subject to reporting under section 313 of Title III (SARA) and 40 CFR 372. All ingredients are TSCA listed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>0.03</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>(ether=1) N/A</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Complete</td>
</tr>
<tr>
<td>Freezing Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>@500</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>1.584</td>
</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F</td>
<td>Unknown</td>
</tr>
<tr>
<td>VOC Content (% by wt.)</td>
<td>15 - 25</td>
</tr>
<tr>
<td>pH @ N/A Solution</td>
<td>N/A</td>
</tr>
<tr>
<td>pH as Distributed</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable
Flammable Limits: N/A
Extinguishing Media: Product is not flammable or combustible.
Special Fire Fighting Procedures: Exercise caution when fighting fires involving chemicals. Respiratory protection is essential—wear self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Contact with some metals may form hydrogen gas. Avoid using in confined, unventilated spaces.

V - REACTIVITY DATA

Stability - Conditions to avoid: Unknown.
Incompatibility: Strong caustics, metals and reducing agents.
Hazardous Decomposition Products: Phosphoric acid fumes; phosphorus oxide fumes; hydrogen gas.
Conditions Contributing to Hazardous Polymerizations: None known.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Corrosive. Concentrated solutions are extremely irritating to eyes and may produce burns on contact. SKIN: Corrosive to tissues. May result in skin burns. Severely irritating to skin; repeated contact with more dilute solutions may result in dermatitis. INHALATION: Mist, vapors or aerosols are irritating to respiratory tract and high concentrations may produce pulmonary edema and difficulty in breathing. INGESTION: If swallowed may result in abdominal hemorrhage, nausea, vomiting or loss of consciousness. Severe abdominal pain may result from severe burns of stomach and gastrointestinal tract.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical aid.
EYES: Immediately flush with plenty of water for at least 15 minutes. Seek medical aid.
SKIN: Immediately wash with soap and plenty of water for 15 minutes while removing contaminated clothing. Seek medical aid.
INGESTION: DO NOT induce vomiting. Give large quantities of water. Seek medical aid. Never give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb on vermiculite or other suitable material and place in a container for disposal.
Waste Disposal Methods: Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: For vapor or mist exposure, use NIOSH-approved respirator.
Eye Protection: Full face shield or goggles. Gloves: Rubber gloves
Other Clothing and Equipment: Rubber apron and boots.
Ventilation: Local and mechanical exhaust recommended. Use only in well ventilated areas that will maintain air levels below limits established by federal, state and local regulations.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: DANGER! Do not get in eyes, on skin or clothing. Wear chemical splash goggles or face shield, rubber gloves, protective clothing when handling. Harmful if swallowed or inhaled. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container closed when not in use.
Additional Information: Use only in well ventilated areas that will maintain air levels below limits established by federal, state and local regulations. Read and observe all labeled precautions.

NFPA
Health Hazard ..........: 2
Fire Hazard ............: 0
Reactivity .............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 2
Fire Hazard ............: 0
Reactivity .............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Liquid Ice Machine Cleaner - Canada
Synonyms: Phosphoric Acid

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4834

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td># Phosphoric Acid* (ORAL LD50 1530 mg/kg) (DERMAL LD50 2740mg/kg)</td>
<td>7664-38-2</td>
<td>75</td>
<td>1mg/m3</td>
<td>1mg/m3</td>
</tr>
<tr>
<td>*STEL=3mg/m3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td># Ingredient subject to reporting under section 313 of Title III (SARA) and 40 CFR 372. All ingredients are TSCA listed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

III - PHYSICAL DATA

Vapor Pressure: 0.03
Evaporation Rate: (ether=1) N/A
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: @500
Specific Gravity H₂O=1 @25° C: 1.584
Vapor Density (Air=1) 60-90° F: Unknown
VOC Content (% by wt.): 15 - 25
pH @ N/A Solution: N/A
pH as Distributed: <1
Appearance: Clear liquid
Odor: Odorless

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable
Flammable Limits: N/A
Extinguishing Media: Product is not flammable or combustible.
Special Fire Fighting Procedures: Exercise caution when fighting fires involving chemicals. Respiratory protection is essential--wear self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Contact with some metals may form hydrogen gas. Avoid using in confined, unventilated spaces.

V - REACTIVITY DATA

Stability - Conditions to avoid: Unknown.
Incompatibility: Strong caustics, metals and reducing agents.
Hazardous Decomposition Products: Phosphoric acid fumes; phosphorus oxide fumes; hydrogen gas.
Conditions Contributing to Hazardous Polymerizations: None known.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   EYES: Corrosive. Concentrated solutions are extremely irritating to eyes and may produce burns on contact. SKIN: Corrosive to tissues. May result in skin burns. Severely irritating to skin; repeated contact with more dilute solutions may result in dermatitis. INHALATION: Mist, vapors or aerosols are irritating to respiratory tract and high concentrations may produce pulmonary edema and difficulty in breathing. INGESTION: If swallowed may result in abdominal hemorrhage, nausea, vomiting or loss of consciousness. Severe abdominal pain may result from severe burns of stomach and gastrointestinal tract.

B. SUBCHRONIC, CHRONIC, OTHER:
   No available information was found.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical aid.
EYES: Immediately flush with plenty of water for at least 15 minutes. Seek medical aid.
SKIN: Immediately wash with soap and plenty of water for 15 minutes while removing contaminated clothing. Seek medical aid.
INGESTION: DO NOT induce vomiting. Give large quantities of water. Seek medical aid. Never give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb on vermiculite or other suitable material and place in a container for disposal.
Waste Disposal Methods: Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: For vapor or mist exposure, use NIOSH-approved respirator.
Eye Protection: Full face shield or goggles. Gloves: Rubber gloves
Other Clothing and Equipment: Rubber apron and boots.
Ventilation: Local and mechanical exhaust recommended. Use only in well ventilated areas that will maintain air levels below limits established by federal, state and local regulations.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: DANGER! Do not get in eyes, on skin or clothing. Wear chemical splash goggles or face shield, rubber gloves, protective clothing when handling. Harmful if swallowed or inhaled. Avoid breathing vapor or mist. Wash thoroughly after handling. Keep container closed when not in use. Additional Information: Use only in well ventilated areas that will maintain air levels below limits established by federal, state and local regulations. Read and observe all labeled precautions.

NFPA
Health Hazard .........: 2
Fire Hazard ..............: 0
Reactivity ................: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ...........: 2
Fire Hazard ..............: 0
Reactivity ................: 0
Personal Protection.... : X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Liquid Scale Dissolver

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid (ORAL LD50 - Rabbit 900mg/kg)</td>
<td>7647-01-0</td>
<td>26</td>
<td>5ppm (ceiling)</td>
<td>5ppm</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Unknown
Evaporation Rate: (ether=1): Not Applicable
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: >212°
Specific Gravity H₂O=1 @25° C: 1.095 - 1.125

IV - FIRE AND EXPLOSION

Flash Point °F: Non flammable
Flammable Limits: N/A
Extinguishing Media: Product is non flammable. Use water spray to cool fire.
Special Fire Fighting Procedures: In the event of fire, wear full protective clothing and NIOSH - approved self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: NOTE: This product can react with metals to release hydrogen gas. Firemen may need to protect against this.

V - REACTIVITY DATA

Stability - Conditions to avoid: None known.
Incompatibility: Bases, strong oxidizers and metals.
Hazardous Decomposition Products: Contact with metals may generate Hydrogen, which can be explosive.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Corrosive to tissues. Causes burns to eyes and skin. INGESTION: Harmful if swallowed. Burns to mouth, throat and stomach are likely. INHALATION: Mists may cause coughing and irritation to respiratory tract.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air and contact a physician.
EYES: &
SKIN: In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse.
INGESTION: If swallowed, DO NOT induce vomiting. Give large quantities of water. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area, contain as much spilled material as possible. Cover with sodium bicarbonate or soda ash and flush with water.
Waste Disposal Methods: Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: A NIOSH - approved respirator for acids is recommended.
Eye Protection: Full face shield or goggles. Gloves: Rubber gloves
Other Clothing and Equipment: Protective clothing.
Ventilation: Local and mechanical exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not get in eyes, on skin or clothing. Avoid breathing vapor or mist. Keep container closed. Wash thoroughly after handling. Keep from contact with chlorine bleaches.
Additional Information: Do not use this product to clean unvented systems. Carbon dioxide gas released in the cleaning process may build pressure in system causing rupture or explosion.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ......</td>
<td>Health Hazard ..........</td>
</tr>
<tr>
<td>Fire Hazard.........</td>
<td>Fire Hazard ............</td>
</tr>
<tr>
<td>Reactivity ..........</td>
<td>Reactivity .............</td>
</tr>
<tr>
<td>Specific Hazard ....</td>
<td>Personal Protection....</td>
</tr>
</tbody>
</table>

Health Hazard ...........: 3
Fire Hazard ............: 0
Reactivity .............: 1
Specific Hazard .......: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Liquid Scale Dissolver - Canada
Synonyms: Acidic Solution

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4845

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid (ORAL LD50 -</td>
<td>7647-01-0</td>
<td>26</td>
<td>5ppm (ceiling)</td>
<td>5ppm</td>
</tr>
<tr>
<td>Rabbit 900mg/kg)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>74</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Unknown
Evaporation Rate: (ether=1): Not Applicable
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: >212°
Specific Gravity H₂O=1 @25° C: 1.095 - 1.125

Vapor Density (Air=1) 60-90° F: Unknown
VOC Content (% by wt.): 100
pH @ Solution: N/A
pH as Distributed: <1
Appearance: Clear orange-color liquid.
Odor: Sharp odor.

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable Flammable Limits: N/A
Extinguishing Media: Product is non flammable. Use water spray to cool fire.
Special Fire Fighting Procedures: In the event of fire, wear full protective clothing and NIOSH - approved self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: NOTE: This product can react with metals to release hydrogen gas. Firemen may need to protect against this.

V - REACTIVITY DATA

Stability - Conditions to avoid: None known.
Incompatibility: Bases, strong oxidizers and metals.
Hazardous Decomposition Products: Contact with metals may generate Hydrogen, which can be explosive.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Corrosive to tissues. Causes burns to eyes and skin.
   INGESTION: Harmful if swallowed. Burns to mouth, throat and stomach are likely. INHALATION: Mists may cause coughing and irritation to respiratory tract.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
**VII - EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** Remove to fresh air and contact a physician.

**EYES:** &

**SKIN:** In case of contact, immediately flush eyes and skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician. Wash clothing before reuse.

**INGESTION:** If swallowed, DO NOT induce vomiting. Give large quantities of water. Call a physician immediately.

**VIII - SPILL OR LEAK PROCEDURE**

Spill Management: Dike area, contain as much spilled material as possible. Cover with sodium bicarbonate or soda ash and flush with water.

**Waste Disposal Methods:** Dispose of in accordance with local, state and federal regulations.

**IX - PROTECTION INFORMATION/CONTROL MEASURES**

**Respiratory:** A NIOSH-approved respirator for acids is recommended.

**Eye Protection:** Full face shield or goggles. **Gloves:** Rubber gloves

**Other Clothing and Equipment:** Protective clothing.

**Ventilation:** Local and mechanical exhaust is recommended.

**X - SPECIAL PRECAUTIONS**

**Precautions to be taken in Handling and Storing:** Do not get in eyes, on skin or clothing. Avoid breathing vapor or mist. Keep container closed. Wash thoroughly after handling. Keep from contact with chlorine bleaches.

**Additional Information:** Do not use this product to clean unvented systems. Carbon dioxide gas released in the cleaning process may build pressure in system causing rupture or explosion.

**NFPA**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>3</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td></td>
</tr>
</tbody>
</table>

**HMIS RATING**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>3</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>1</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Micromet Crystals
Synonyms: Polyphosphate Glass

II - HAZARDOUS INGREDIENTS OF MIXTURES

According to the OSHA Hazard Communications Standard, (29CFR 1910.1200), this product contains no hazardous ingredients. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Solid
Evaporation Rate: (ether=1) N/A
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: Solid
Specific Gravity H₂O=1 @25° C: Solid

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable
Flammable Limits: N/A
Extinguishing Media: Product is non flammable.
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None known

V - REACTIVITY DATA

Stability - Conditions to avoid: Wet storage.
Incompatibility: Strong oxidizer.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Results from acute toxicity testing show that the material would not be considered toxic as defined by the CPSC protocol. However, product has sharp edges which can cause skin abrasions.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.
SKIN: Wash affected area thoroughly. Contact a physician if irritation develops.
INGESTION: N/A
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Sweep up spilled material and dispose of with other solid wastes. Product is slippery when wet.

Waste Disposal Methods: Disposal of product should be adherence with above described (or similarly approved) disposal procedure. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Normally not required. Gloves: Rubber gloves
Other Clothing and Equipment: Not required.
Ventilation: Normal.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep container closed. Exercise caution in the storage and handling of all chemical substances.
Additional Information: Read and observe all labeled precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........</td>
<td>0</td>
</tr>
<tr>
<td>Fire Hazard ...........</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity ............</td>
<td>0</td>
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<tr>
<td>Specific Hazard .......</td>
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<tr>
<td>Health Hazard ..........</td>
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</tr>
<tr>
<td>Fire Hazard ............</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity ............</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection....</td>
<td>X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Micromet Plates

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgan Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Micromet Plates
Synonyms: Polyphosphate Glass

II - HAZARDOUS INGREDIENTS OF MIXTURES

According to the OSHA Hazard Communications Standard, (29CFR 1910.1200), this product contains no hazardous ingredients. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Solid
Evaporation Rate: (ether=1) N/A
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: Solid
Specific Gravity H₂O=1 @25° C: Solid

Vapor Density (Air=1) 60-90° F: Solid
VOC Content (% by wt.): Solid
pH @ 1% Solution: 7.0 - 7.5
pH as Distributed: N/A
Appearance: Clear glassy material
Odor: Typical

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable
Flammable Limits: N/A
Extinguishing Media: Product is non flammable.
Special Fire Fighting Procedures: None.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Wet storage.
Incompatibility: Strong oxidizer.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Results from acute toxicity testing show that the material would not be considered toxic as defined by the CPSC protocol. However, product has sharp edges which can cause skin abrasions.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.
SKIN: Wash affected area thoroughly. Contact a physician if irritation develops.
INGESTION: N/A
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Sweep up spilled material and dispose of with other solid wastes. Product is slippery when wet.
Waste Disposal Methods: Disposal of product should be in adherence with above described (or similarly approved) disposal procedure. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Normally not required. Gloves: Rubber gloves
Other Clothing and Equipment: Not required
Ventilation: Normal.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep container closed. Exercise caution in the storage and handling of all chemical substances.
Additional Information: Read and observe all labeled precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard........</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard ..........</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity ..........</td>
</tr>
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<td>Specific Hazard</td>
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</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Nickel-Safe Ice Machine Cleaner
Synonyms: Descaler for nickel-plated ice machines

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>phosphoric acid</td>
<td>7664-38-2</td>
<td>&lt;30</td>
<td>1mg/m3</td>
<td>1mg/m3</td>
</tr>
<tr>
<td>citric acid</td>
<td>77-92-9</td>
<td>&lt;5</td>
<td>ne</td>
<td>ne</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A
Evaporation Rate: (ether=1) N/A
Solubility in H₂O: Complete
Freezing Point °F: 0
Boiling Point °F: >200°F
Specific Gravity H₂O=1 @25° C: 1.188

IV - FIRE AND EXPLOSION

Flash Point F: None
Flammable Limits: N/A
Extinguishing Media: Product is non flammable or combustible.
Special Fire Fighting Procedures: None known.
Unusual Fire and Explosion Hazards: N/A

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable, none known.
Incompatibility: Strong bases, ammonia, chlorine bleach.
Hazardous Decomposition Products: Forced ignition of dried residues may produce oxides of phosphorus.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Severely irritating to eyes on contact. May cause burns. (Primary Route of Exposure) SKIN: Causes severe irritation. May cause burns on prolonged contact. INHALATION: Mists irritating to upper respiratory tract. INGESTION: Severely irritating to mouth, throat and stomach.
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
SKIN: Flush skin with plenty of water for at least 15 minutes. If irritation persists, get medical attention.
ingestion: Do NOT induce vomiting. Give 1 or 2 glasses of water to dilute. Get immediate medical attention.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Small spills may be mopped up and residues flushed to drain with water. Rinse mop before storing. Neutralize with dilute solution of soda ash.

Waste Disposal Methods: Unused material is corrosive waste (D002). Used material may be sewered in accordance with all applicable regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not normally required.
Other Clothing and Equipment: None normally required.
Ventilation: Good general ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: This product will withstand an occasional accidental freezing without loss of performance. Thaw and remix before use.

Additional Information: This is a complete product. Do not add or mix with other chemicals.

NFPA

Health Hazard ..........: 2
Fire Hazard.............: 0
Reactivity ................: 0
Specific Hazard ........:  

HMIS RATING

Health Hazard..........: 2
Fire Hazard ..........: 0
Reactivity ..........: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Nickel-Safe Ice Machine Cleaner - Canada
Synonyms: Descaler for nickel-plated ice machines

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>phosphoric acid</td>
<td>7664-38-2</td>
<td>&lt;30</td>
<td>1mg/m3</td>
<td>1mg/m3</td>
</tr>
<tr>
<td>citric acid</td>
<td>77-92-9</td>
<td>&lt;5</td>
<td>ne</td>
<td>ne</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A
Evaporation Rate: (ether=1) N/A
Solubility in H₂O: Complete
Freezing Point °F: 0
Boiling Point °F: >200°F
Specific Gravity H₂O=1 @25° C: 1.188

IV - FIRE AND EXPLOSION

Flash Point F: None
Flammable Limits: N/A
Extinguishing Media: Product is non flammable or combustible.
Special Fire Fighting Procedures: None known.
Unusual Fire and Explosion Hazards: N/A

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable, none known.
Incompatibility: Strong bases, ammonia, chlorine bleach.
Hazardous Decomposition Products: Forced ignition of dried residues may produce oxides of phosphorus.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Severely irritating to eyes on contact. May cause burns. (Primary Route of Exposure) SKIN: Causes severe irritation. May cause burns on prolonged contact. INHALATION: Mists irritating to upper respiratory tract. INGESTION: Severely irritating to mouth, throat and stomach.
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
SKIN: Flush skin with plenty of water for at least 15 minutes. If irritation persists, get medical attention.
INGESTION: Do NOT induce vomiting. Give 1 or 2 glasses of water to dilute. Get immediate medical attention.
VIII - SPILL OR LEAK PROCEDURE

**Spill Management:** Small spills may be mopped up and residues flushed to drain with water. Rinse mop before storing. Neutralize with dilute solution of soda ash.

**Waste Disposal Methods:** Unused material is corrosive waste (D002). Used material may be sewered in accordance with all applicable regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

**Respiratory:** Not normally required.

**Eye Protection:** Splash goggles. **Gloves:** Rubber gloves.

**Other Clothing and Equipment:** None normally required.

**Ventilation:** Good general ventilation.

X - SPECIAL PRECAUTIONS

**Precautions to be taken in Handling and Storing:** This product will withstand an occasional accidental freezing without loss of performance. Thaw and remix before use.

**Additional Information:** This is a complete product. Do not add or mix with other chemicals.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard : 2</td>
<td>Health Hazard : 2</td>
</tr>
<tr>
<td>Fire Hazard : 0</td>
<td>Fire Hazard : 0</td>
</tr>
<tr>
<td>Reactivity : 0</td>
<td>Reactivity : 0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection : X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: No. 340 Liquid Scale Inhibitor
Synonyms: Phosphonate Glycol Mixture

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td># Ethylene Glycol (ORAL LD50 - Rat 8540mg/kg)</td>
<td>107-21-1</td>
<td>13%</td>
<td>50ppm (ceiling)</td>
<td>50ppm (ceiling)</td>
</tr>
<tr>
<td># Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All ingredients are TSCA listed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: Like water
- Evaporation Rate: (ether=1): N/A
- Solubility in H₂O: Complete
- Freezing Point °F: N/A
- Boiling Point °F: >212°
- Specific Gravity H₂O=1 @25° C: 1.25
- Vapor Density (Air=1) 60-90° F: Like H₂O
- VOC Content (% by wt.): @70
- pH @ Solution: N/A
- pH as Distributed: 8.5
- Appearance: Clear, colorless liquid
- Odor: Chemical odor

IV - FIRE AND EXPLOSION

- Flash Point °F: Non flammable
- Flammable Limits: N/A
- Extinguishing Media: Product is non flammable.
- Special Fire Fighting Procedures: Always use suitable equipment for fighting chemical fires. A self-contained breathing apparatus and impervious clothing.
- Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

- Stability - Conditions to avoid: None known.
- Incompatibility: Strong oxidizers.
- Hazardous Decomposition Products: Unknown.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure): EYES & SKIN: Causes irritation to both eyes and skin. INGESTION: Harmful if swallowed. Large quantities will cause upset to stomach.

B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: &
SKIN: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. Flush skin with water.
INGESTION: If swallowed, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Never give anything by mouth to an unconscious person. Call a physician.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area, contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in a sealed metal container for disposal.
Waste Disposal Methods: Landfill or mix with a flammable solvent and incinerate in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required unless the TLV for ethylene glycol is exceeded.
Eye Protection: Goggles or safety glasses. Gloves: Rubber gloves
Other Clothing and Equipment: Not required.
Ventilation: Mechanical exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Keep container closed. Wash thoroughly after handling. Use with adequate ventilation.
Additional Information: Read and observe all labeled precautions.

NFPA            HMIS RATING
Health Hazard .........: 1             Health Hazard ............: 1
Fire Hazard ..........: 0               Fire Hazard ..............: 0
Reactivity ............: 0               Reactivity ...............: 0
Specific Hazard ......:                   Personal Protection.... : X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: No. 85 Algaecide
Synonyms: Microbiocide

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly{ oxyethylene (dimethylimino)</td>
<td>31075-24-8</td>
<td>30</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>ethylene (dimethyliminio) ethylene dichloride</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ORAL LD50 Rat 3690 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: Unknown
- Evaporation Rate: (ether=1) N/AV
- Solubility in H₂O: Complete
- Freezing Point °F: N/AV
- Boiling Point °F: above 212
- Specific Gravity H₂O=1 @25° C: 1.075
- Vapor Density (Air=1) 60-90° F: like H₂O
- VOC Content (% by wt.): 70
- pH @ Solution: N/A
- pH as Distributed: 6.5
- Appearance: Clear, slightly viscous liquid
- Odor: Typical

IV - FIRE AND EXPLOSION

- Flash Point F: >275°F (TOC) Flammable Limits: N/A
- Extinguishing Media: Foam, CO₂, dry chemical.
- Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.
- Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

- Stability - Conditions to avoid: None.
- Incompatibility: Strong bases, strong acids.
- Hazardous Decomposition Products: Unknown.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Testing of the active ingredient in rabbits produced only slight skin irritation and minimal transient ocular irritation. INGESTION: Harmful if swallowed. May cause upset to stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with cool water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush with cool water for at least 15 minutes. If irritation develops, call a physician.
INGESTION: If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dike area to contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in sealed container for disposal.
Waste Disposal Methods: Keep container closed when not in use. Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. This container must be triple rinsed (or equivalent) and offered for recycling, reconditioning or disposal in an approved landfill. Rinsate that cannot be used or reprocessed should be disposed of in a landfill for pesticides. Open dumping is prohibited.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Eye goggles or safety glasses Gloves: Rubber gloves
Other Clothing and Equipment: None.
Ventilation: Normal.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: This pesticide is toxic to fish. Keep out of lakes, streams or ponds. Permits may be required for discharges containing this pesticide into lakes, streams ponds or public water. For guidance, contact the regional office of the EPA.
Additional Information: Avoid contact with the eyes, skin or clothing. Keep container closed. Wash thoroughly after handling. Avoid breathing vapors.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

Health Hazard ...........: 2
Fire Hazard ............: 0
Reactivity .............: 0
Specific Hazard .......:

NFPA

Revision Date: 8/6/2004

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Material Safety Data Sheet  
No. 90 Algaecide

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: No. 90 Algaecide  
Synonyms: Cooling Water Microbiocide  
EPA Regis. No. 5185-420-65516  
EPA Est. No. 5185-MI-1  

Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4109

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Bromo-3-Chloro-5, 5-Dimethylhydantoin</td>
<td>16079-88-2</td>
<td>96</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Solid  
Evaporation Rate: (ether=1) N/A  
Solubility in H₂O: 0.15g/100g in H₂O  
Freezing Point °F: N/AV  
Boiling Point °F: Solid  
Specific Gravity H₂O=1 @25° C: Solid

Vapor Density (Air=1) 60-90° F: Solid  
VOC Content (% by wt.): Solid  
pH @ Solution: Unknown  
pH as Distributed: N/A  
Appearance: White compressed tablets  
Odor: Strong halogen odor

IV - FIRE AND EXPLOSION

Flash Point F: Non flammable  
Flammable Limits: N/A  
Extinguishing Media: Water.  
Special Fire Fighting Procedures: If involved in a fire, hydrogen bromide or bromine may be released. Exercise caution when fighting any chemical fire. Respiratory protection is essential. In large fires, product may smolder for prolonged periods emitting a dense black smoke.  
Unusual Fire and Explosion Hazards: Product is a strong oxidizing agent. Contamination with moisture, organic matter or other chemicals may start a chemical reaction with generation of heat, hazardous gases and possible fire and explosion. In case of contamination or decomposition do not reseal container. If possible, isolate container in open air or well ventilated area. If necessary, flood with large volume of water.

V - REACTIVITY DATA

Stability - Conditions to avoid: Do not mix with anything but water.  
Incompatibility: Organics and strong reducing agents.  
Hazardous Decomposition Products: Fires may release hydrogen bromide or bromine.  
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYE & SKIN: Corrosive to tissues. Direct contact causes severe eye irritation. Can cause irreversible eye damage. Remove and wash all contaminated clothing before reuse. INHALATION: Irritating to nose and throat. INGESTION: Poisonous, may be fatal if swallowed.  
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Contact a physician, if irritation persists.
EYES: In case of contact, flush eyes copiously with water for at least 15 minutes and get medical attention.
SKIN: After handling, wash hands thoroughly.
INGESTION: If swallowed, drink raw egg whites, milk or mucilage, follow with emetic (tablespoon of mustard in glass of warm water).

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dispose of in accordance with federal, state and local regulations. Sweep up spilled material and repackage. Wash area of spill with large amounts of water.
Waste Disposal Methods: PESTICIDE DISPOSAL: Pesticide, spray mixture, or rinsate that cannot be used or chemically reprocessed should be disposed of in a landfill approved for pesticides. CONTAINER DISPOSAL: Dispose of in an incinerator or landfill approved for pesticide containers. Do not reuse empty container. GENERAL: Consult federal, state or local disosal authorities for approved alternative procedures.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Dust mask essential where dusting may occur.
Eye Protection: Eye goggles
Gloves: Rubber gloves
Other Clothing and Equipment: Protective clothing.
Ventilation: Local and mechanical exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not get in eyes, on skin or clothing. Keep container closed. Keep out of reach of children. After handling, wash hands throughly. Do not breath dusts. Store in a cool, dry area away from fire or flame.
Additional Information: Mix only with water. Use clean, dry utensils and equipment. Do not mix with other chemicals. Such use may cause violent reaction.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ....</td>
<td>Health Hazard ..........</td>
</tr>
<tr>
<td>Fire Hazard ........</td>
<td>Fire Hazard ............</td>
</tr>
<tr>
<td>Reactivity ..........</td>
<td>Reactivity .............</td>
</tr>
<tr>
<td>Specific Hazard ....</td>
<td>Personal Protection ....</td>
</tr>
</tbody>
</table>

| Health Hazard ..........: 1
| Fire Hazard ............: 0
| Reactivity .............: 2
| Specific Hazard .......: 2
| Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Nu-Blast  
Synonyms: Aerosol cleaner/degreaser  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4290

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene*</td>
<td>79-01-6</td>
<td>&gt;50</td>
<td>50 ppm</td>
<td>50 ppm</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>124-38-9</td>
<td>&gt; 5</td>
<td>5000 ppm</td>
<td>5000 ppm</td>
</tr>
</tbody>
</table>

*This is a SARA III listed ingredient. WARNING: This product contains a chemical or chemicals known to the State of California to cause cancer.  
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: 85-100psig @70°F  
Evaporation Rate: (n-butyl acetate=1) = 2.6  
Solubility in H₂O: Insoluble  
Freezing Point °F: N/A  
Boiling Point °F: N/A  
Specific Gravity H₂O=1 @25° C: 1.45  
Vapor Density (Air=1) 60-90° F: N/A  
VOC Content (% by wt.): 100  
pH @ N/A Solution: N/A  
pH as Distributed: N/A  
Appearance: Clear, colorless spray  
Odor: lemon-scented solvent

IV - FIRE AND EXPLOSION

Flash Point F: None  
Flammable Limits: None  
Extinguishing Media: Foam, dry chemical, carbon dioxide  
Special Fire Fighting Procedures: Self-contained breathing apparatus  
Unusual Fire and Explosion Hazards: Keep at room temperature. Do not expose to temperatures above 130°F

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable; open flames, welding arcs, heat  
Incompatibility: Reactive metals, magnesium, strong oxidizing agents. Product may react with aluminum if immersed in liquid concentrate trichloroethylene for extended periods.  
Hazardous Decomposition Products: CO, CO₂, HCL, small amounts of phosgene and chlorine  
Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): INGESTION: Possible chemical pneumonitis if aspirated into lungs, nausea. INHALATION: Excessive inhalation of vapor can be harmful and may cause headache, dizziness, asphyxia, anesthetic effects and possible unconsciousness. EYE CONTACT: Irritation. SKIN CONTACT: Irritation due to defatting of skin  
B. SUBCHRONIC, CHRONIC, OTHER: (Effects due to excessive exposure to the raw materials of this mixture)  
May cause liver abnormalities, kidney, spleen, lung, or brain damage, cardiac abnormalities.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove person to fresh air. Resuscitate if necessary. GET MEDICAL ATTENTION.
EYES: Flush with water for at least 15 minutes. If irritated, seek medical attention.
SKIN: Wash with soap and water. If irritated, seek medical attention.
INGESTION: Call physician immediately. Do not induce vomiting. Drink two large glasses of water.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb with suitable medium. Incinerate or landfill according to local, state or Federal regulations. Allow to evaporate if small spill. DO NOT FLUSH TO SEWER.
Waste Disposal Methods: Aerosols can when vented to atmospheric pressure through normal use, pose no disposal hazard.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If vapor concentration exceeds TLV, use respirator approved by NIOSH/MSHA for organic matter
Eye Protection: Safety glasses Gloves: Neoprene
Other Clothing and Equipment: None
Ventilation: Provide local exhaust ventilation in volume and pattern to keep TLV of all hazardous ingredients in section II below acceptance limit.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store above 130°F. Do not puncture or incinerate.
Additional Information: Keep out of the reach of children. Avoid food contamination. Avoid inhalation of vapors.

NFPA
Health Hazard ..........: 2
Fire Hazard ............: 0
Reactivity ..............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 2
Fire Hazard ............: 0
Reactivity ..............: 0
Personal Protection.... : X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Nu-Brite
Synonyms: Alkaline Coil Cleaner

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4291

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
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<tbody>
<tr>
<td>Sodium Hydroxide (Caustic Soda)</td>
<td>1310-73-2</td>
<td>&gt;20</td>
<td>2mg/M3</td>
<td>Ceiling</td>
</tr>
</tbody>
</table>

VOC Content: 2.8%
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Not Determined
Evaporation Rate: (ether=1) Same as H₂O
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: 212°F
Specific Gravity H₂O=1 @25°C: 1.252 +/- 0.005

IV - FIRE AND EXPLOSION

Flash Point F: None to boiling Flammable Limits: N/A
Extinguishing Media: Water spray (Fog): Dry chemical; CO₂; Foam
Special Fire Fighting Procedures: Do not enter confined fire-spaces without protective clothing and self-contained air supply.
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Strong acids/oxidizers. Do not mix with chlorinated detergents (bleach)
Hazardous Decomposition Products: Burning may produce carbon monoxide and/or carbon dioxide.
Conditions Contributing to Hazardous Polymerizations: N/A

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYE, SKIN, ORAL: Corrosive material. Will cause burns of skin and eyes with prolonged contact. Eye damage likely if contact is prolonged. Generated mists may be seriously irritating and cause damage to respiratory tract if swallowed. Harmful or fatal if swallowed. May cause severe burns of mucous membranes, stomach, nausea, vomiting - possible internal damage.
B. SUBCHRONIC, CHRONIC, OTHER: Chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Start artificial respiration if necessary. Oxygen may be administered. Call a physician.

EYES: &

SKIN: Flush eyes with water for at least 15 minutes and call a physician immediately. Skin: Wash affected area with large amounts of soap and water. If irritation persists call physician.

INGESTION: Do not induce vomiting. Dilute by drinking water. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Safely stop spill at source. Contain spill by diking with soil or other inert material and CAREFULLY neutralize with dilute acid. Mop, pump or absorb with inert material and reclaim into sound containers for proper disposal.

Waste Disposal Methods: Dispose of in an approved waste facility according to Federal, State and local regulations. Keep non-neutralized material out of sewers, storm drains, surface water and soil.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH approved respirator where mists or sprays may be generated. (Caustic mist cartridge type)

Eye Protection: Chemical goggles, face shield

Gloves: Rubber gloves

Other Clothing and Equipment: Protective clothing to minimize contact (boots, apron, faceshield)

Ventilation: Product is intended for outdoor use.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Corrosive Material - Handle All Containers Carefully. Wash thoroughly after handling. Keep containers closed when not in use. Avoid contact with leather or wool.

Additional Information: None

NFPA 

Health Hazard...........: 3
Fire Hazard...............: 0
Reactivity ...............: 0
Specific Hazard ........: 

HMIS RATING

Health Hazard...........: 3
Fire Hazard...............: 0
Reactivity ...............: 0
Personal Protection.....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Nu-Foam
Synonyms: Insulating Sealant

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene bisphenyl isocyanate**</td>
<td>101-68-8</td>
<td>3-6</td>
<td>.005ppm</td>
<td>0.02 ppm</td>
</tr>
<tr>
<td>Polymethylene polyphenyl</td>
<td>9016-87-9</td>
<td>41-44</td>
<td>NE*</td>
<td>NE*</td>
</tr>
<tr>
<td>isocyanate</td>
<td>13674-84-5</td>
<td>10-12</td>
<td>NE*</td>
<td>NE*</td>
</tr>
<tr>
<td>Chlorinated Phosphate</td>
<td>115-10-6</td>
<td>1-3</td>
<td>NE*</td>
<td>NE*</td>
</tr>
<tr>
<td>Dimethylether</td>
<td>74-98-6</td>
<td>3-6</td>
<td>1000 ppm</td>
<td>1000 ppm</td>
</tr>
<tr>
<td>Propane</td>
<td>75-28-5</td>
<td>7-6</td>
<td>NE*</td>
<td>NE*</td>
</tr>
<tr>
<td>Isobutane</td>
<td>22-33</td>
<td></td>
<td>NE*</td>
<td>NE*</td>
</tr>
</tbody>
</table>

Polyether Polyol
* Not established
** This compound is a toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (40 CFR 372)
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: 82.0 psig @ 70°F
Evaporation Rate: NE*
Solubility in H₂O: N/A
Freezing Point °F: NE*
Boiling Point °F: -43.7°F (-42°C)
Specific Gravity H₂O=1 @25° C: 1.01
Vapor Density (Air=1) 60-90° F: Heavier than air
VOC Content (% by wt.): NE*
pH @ Solution: NE*
pH as Distributed: NE*
Appearance: Gel under pressure.
Odor: Hydrocarbon odor.

IV - FIRE AND EXPLOSION

Flash Point F: Estimated -156°F Flammable Limits: 1.8% Lower 10% Upper
Extinguishing Media: Water fog; foam; CO₂; dry chemical.
Special Fire Fighting Procedures: Wear full self-contained breathing apparatus and full protective clothing.
Unusual Fire and Explosion Hazards: Avoid storage temperatures above 120°F to prevent can explosions. Avoid water contamination in closed container.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable under normal storage and handling conditions - Do not store above 100°F or in auto or direct sunlight; cured foam will deteriorate when exposed to UV light.
Incompatibility: Water, alcohol, strong bases, finely powdered metal such as aluminum, magnesium or zinc, and strong oxidizers.
Hazardous Decomposition Products: Contamination with water may form CO₂.
Conditions Contributing to Hazardous Polymerizations: Contamination with water may form CO₂. Avoid high heat (flames, extremely hot metal surfaces, heating elements, combustion engines, etc.). Do not store in auto or direct sunlight.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYE contact with MDI may result in conjunctival irritation and mild corneal opacity. SKIN contact may result in dermatitis, either irritative or allergic. INHALATION of MDI vapors may cause irritation of the mucous membranes of the nose, throat or trachea, breathlessness, chest discomfort, difficult breathing and reduced pulmonary function. Air-borne overexposure well above the PEL may result additionally in eye irritation, headache, chemical bronchitis, asthma-like findings or pulmonary edema. Isocyanates have also been reported to cause hypersensitivity pneumonitis, which is characterized by flu-like symptoms, the onset of which may be delayed. Gastrointestinal symptoms include nausea, vomiting and abdominal pain. Polyurethane resin forms a quick bond with skin. Cured foam is hard to remove from skin. May cause eye damage.

B. SUBCHRONIC, CHRONIC, OTHER: Acute or chronic overexposure to isocyanates may cause sensitization in some individuals, resulting in allergic symptoms of the lower respiratory tract (asthma-like), including wheezing, shortness of breath and difficulty breathing. Subsequent reactions may occur at or substantially below the PEL and TLV. Asthma caused by isocyanates, including MDI, may persist in some individuals after removal from exposure and may be irreversible. Some isocyanate sensitized persons may experience asthma reactions upon exposure to non-isocyanate containing dusts or irritants. Cross sensitization to different isocyanates may occur. Long-term overexposure to isocyanates has also been reported to cause lung damage, including reduced lung function, which may be permanent. An animal study indicated that MDI may induce respiratory hypersensitivity following dermal exposure.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Breathing difficulties, chest discomfort, headache, eye and nose membrane irritation.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Give oxygen. If not breathing, give artificial respiration. Keep victim quiet. Do not give stimulants. Get immediate medical attention.
EYES: In case of eye contact, flush with water for 15 minutes. Get immediate medical attention.
SKIN: If frostbitten, warm skin slowly with water; otherwise, wash affected areas with soap and water. Remove wet foam immediately from skin with acetone or nail polish remover. If foam dries on skin, apply generous amounts of petroleum jelly or lanolin, leave on for one hour, wash thoroughly, and repeat process until foam is removed. Do not attempt to remove dried foam with solvents.
INGESTION: In case of ingestion, get immediate medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: If can ruptures, protect area from heat, sparks, flames, or static electricity. Turn off sources of ignition. Vapors are heavier than air. Make sure area is adequately ventilated. Allow foaming process to complete; then dispose according to federal, state and local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not Applicable
Eye Protection: Safety glasses Gloves: Rubber gloves
Other Clothing and Equipment: Wear gloves and safety glasses. Use in well ventilated areas only. See section IV.
Ventilation: Maintain local exhaust rate to keep below TLV.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Always store upright between 0 °F(min) and 100° F(max). Do not store in sunlight.
Additional Information: (Carcinogenicity) Results from a lifetime inhalation study in rats indicate that MDI aerosol was carcinogenic at 6 mg/m3, the highest dose tested. This is well above the recommended TLV of 5 ppb (0.05 mg/m3). Only irritation was noted at the lower concentration of 0.2 and 1 mg/m3.
NFPA
Health Hazard ............: 1
Fire Hazard ................: 4
Reactivity ..................: 1
Specific Hazard ..........:

HMIS RATING
Health Hazard ............: 1
Fire Hazard ...............: 4
Reactivity ..................: 1
Personal Protection ....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

**Company Name:** Nu-Calgon Wholesaler, Inc.  
**Address:** 2008 Altom Court, St. Louis, MO 63146-4151  
**Product Name:** Nu-Klean II  
**Synonyms:** Waterless Hand Cleaner  
**Tel No:** (314) 469-7000, (800) 554-5499  
**CHEMTREC:** (800) 424-9300  
**Product Number:** 4194

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adepsine Oil</td>
<td>8012-95-1</td>
<td></td>
<td>5 mg/m3</td>
<td>5 mg/m3 mis</td>
</tr>
<tr>
<td>d’Limonen</td>
<td>5988-27-5</td>
<td></td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>9-Octadecenoic Acid</td>
<td>112-80-1</td>
<td></td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Clay</td>
<td>1317-66-3</td>
<td></td>
<td>10 mg/m3</td>
<td>15 mg/m3 dust</td>
</tr>
<tr>
<td>Pumice</td>
<td>60676-86-0</td>
<td></td>
<td>NE</td>
<td>15 mg/m3 dust</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- **Vapor Pressure:** mm Hg: N/A  
- **Evaporation Rate:** (ether=1): N/AV  
- **Solubility in H₂O:** Complete  
- **Freezing Point °F:** N/AV  
- **Boiling Point °F:** 212°  
- **Specific Gravity H₂O=1 @25° C:** 0.95  
- **Vapor Density (Air=1) 60-90° F:** >1  
- **VOC Content (% by wt.):**  
- **pH @ Solution:** N/A  
- **pH as Distributed:** 8.3  
- **Appearance:** Orange gel  
- **Odor:** Citrus

IV - FIRE AND EXPLOSION

- **Flash Point F:** None to Boiling  
  **Flammable Limits:** No Data  
- **Extinguishing Media:** Does not support combustion.  
- **Special Fire Fighting Procedures:** Keep containers cool and vapors down with water spray.  
- **Unusual Fire and Explosion Hazards:** None.

V - REACTIVITY DATA

- **Stability - Conditions to avoid:** Stable  
- **Incompatibility:** Strong acids, bases, oxidizers and selected amines.  
- **Hazardous Decomposition Products:** CO₂, CO, hydrogen bromide, nitrous oxides and ammoniacal compounds.  
- **Conditions Contributing to Hazardous Polymerizations:** None, will not occur.

VI - HEALTH HAZARD DATA

**EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),**

A. **ACUTE (Primary Route of Exposure):** INGESTION: Harmful if swallowed. May cause blindness. EYES: May cause irritation.

B. **SUBCHRONIC, CHRONIC, OTHER:** Ingestion: May irritate gastrointestinal tract. Pre-existing skin disorders.

C. **MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:**
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Get to fresh air.
EYES: Flush with plenty of water for 15 minutes, lifting eyelids to insure complete rinsing. Get medical attention.
SKIN: N/A
INGESTION: Rinse mouth, drink plenty of water. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Caution - slip hazard. Wipe up or scoop product for reuse, or put in suitable container for disposal. Rinse residuals with water.
Waste Disposal Methods: Consult local, state & federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None required
Eye Protection: Safety glasses Gloves: None required
Other Clothing and Equipment: None required.
Ventilation: Mechanical General.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Keep from freezing. Store in cool, dry location. Replace lid when not in use or use follow-plate. Wash or wipe skin after use. Avoid contact with eyes. Do not swallow.
Additional Information: Follow label directions. Keep out of reach of children. Keep container tightly sealed when not in use. Do not contaminate water, food, or feed by use or storage.

NFPA
Health Hazard ..........: 0
Fire Hazard..............: 0
Reactivity ..............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard..........: 0
Fire Hazard............: 0
Reactivity.............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Odor-Free Deodorant Towels

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Odor-Free Deodorant Towels

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Butoxyl-2-Propanol ab</td>
<td>10215-33-5</td>
<td>&lt;4</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Synthetic isoparaffinic hydrocarbon</td>
<td>64742-47-8</td>
<td>&lt;92</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

a: On CERCLA list of Hazardous Substances and Reportable Quantities (40CFR 302.4)
b: On SARA Title III List of Toxic Chemicals subject to release reporting (Community Right to Know 40CFR 372)
All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Freezing Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>0.798</td>
</tr>
<tr>
<td>Odor</td>
<td>Vanilla</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: 162°F (concentrate [closed cup]). Flammable Limits:
Extinguishing Media: Water, foam, dry chemical, CO₂.
Special Fire Fighting Procedures: Firefighters should be equipped with full protective gear including breathing apparatus.
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: stable - none known.
Incompatibility: Strong oxidizing agents.
Hazardous Decomposition Products: None.
Conditions Contributing to Hazardous Polymerizations: None.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: mild irritation and redness. SKIN: Irritation dryness with prolonged contact.
B. SUBCHRONIC, CHRONIC, OTHER: None.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush eyes and under eye lids with plenty of cool water for at least 15 minutes. Obtain medical attention if irritation persists.
SKIN: Flush area with soap and water.
INGESTION: N/A

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Remove all sources of ignition and ventilate area. Soak up spilled material with inert absorbent material and collect loose towels.
Waste Disposal Methods: Consult local authorities.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Not required Gloves: Not required
Other Clothing and Equipment: Not required
Ventilation: Not required

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Store in a cool dry place. Keep container tightly closed when stored.
Additional Information: Keep out of the reach of children

NFPA
Health Hazard ..........: 1
Fire Hazard.............: 2
Reactivity...............: 0
Specific Hazard ........:

HMIS RATING
Health Hazard...........: 1
Fire Hazard..............: 2
Reactivity................: 0
Personal Protection.....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Oxine

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Oxine
Synonyms: Sanitize and Deodorize

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4295-12

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chlorite</td>
<td>3.35</td>
<td>N/A</td>
<td>0.1</td>
<td>N/A</td>
</tr>
<tr>
<td>Chlorine Dioxide</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: 23.7 mm Hg (25°C)
Evaporation Rate: Comparable to water
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: 213°F (100°C)
Specific Gravity H₂O=1 @25° C: 1.03 g/ml

IV - FIRE AND EXPLOSION

Flash Point F: None to boiling Flammable Limits: N/A
Extinguishing Media: Water unless contraindicated by other material involved in fire.
Special Fire Fighting Procedures: Do not allow Oxine solutions to evaporate to dryness. If chlorine dioxide gas is produced, vent atmosphere. Open or vent any large container of Oxine
Unusual Fire and Explosion Hazards: The sodium chlorite in dried Oxine is a strong oxidizer, which supports combustion. Chlorine dioxide, which may evolve from Oxine solutions, is explosive in the gaseous phase at concentrations greater than 10% by volume. Do not allow chlorine dioxide gas to accumulate within a confined space

V - REACTIVITY DATA

Stability - Conditions to avoid: Product is Stable. Avoid storing product under conditions in which it could evaporate to crystalline salt.
Incompatibility: Avoid accidental contact with acids, chlorine compounds, hypochlorites (bleach), sulfer and sulfite compounds, phosphorus, organic solvents, and combustible/flammable materials
Hazardous Decomposition Products: Exposure to acids or chlorine compounds can produce uncontrolled generation of chlorine dioxide gas
Conditions Contributing to Hazardous Polymerizations: Does not occur
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   INGESTION: Rat Oral LD50: 4,360 mg/Kg. Ingestion may produce gastric discomfort, nausea, vomiting and diarrhea. Intake of large quantities may produce methemoglobinemia. EYES: Based upon rabbit studies, product has been given an EPA Category III rating as a mild irritant. Exposure can produce slight irritation of conjunctiva, cornea and eyelid. SKIN: Based on rabbit studies, product is listed as "practically not an irritant". Prolonged exposure may produce localized irritation, contact dermatitis, mild erythema and oedema. It is highly unlikely to be absorbed through the skin in toxic amounts. Rabbit Acute Dermal LD50 > 2,020 mg/Kg. INHALATION: Acute inhalation: LC50 > 5.61 mg/L. Prolonged inhalation of fog or mist containing Oxine may be irritating to nose and throat.
B. SUBCHRONIC, CHRONIC, OTHER: May cause localized irritation to areas exposed to product
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Skin disorder, such as dermal allergies and dermatitis. Exposure to chlorine dioxide produced by activation can aggravate pulmonary disorders, such as emphysema

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Unactivated Oxine normally has no respiratory effects. If exposure to chlorine dioxide produced from activation occurs, remove victim to fresh air. Contact a physician if respiratory distress continues
EYES: Flush eyes thoroughly with water, making certain eyelids are held open. If irritation or burning persist, seek medical attention
SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing and rinse thoroughly with water before laundering or discard. If irritation occurs, seek medical attention.
INGESTION: DO NOT INDUCE VOMITING. Contact a physician or Poison Control center immediately

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Small spills, involving less than 10 gallons, may be flushed to a designated and permitted sewer system with copious amount of water. Larger spills should be contained and neutralized with sodium bisulfite or sodium thiosulfate (1.2 lbs neutralizer per each estimated lb. of spilled material) or disposed of as chemical waste in a manner indicated below. At no time should the spilled material be allowed to dry to a crystalline salt.
Waste Disposal Methods: Small quantities, less than 10 gallons, may be flushed to an authorized and designated sewer with copious amount of water.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Fogging or spraying applications may require worker respiratory protection such as: NIOSH/MSHA approved air-purifying respirators or NIOSH/MSHA approved canister/cartridge facial respirators rated for chlorine/acid vapors or specified for chlorine dioxide.
Eye Protection: Use of chemical safety goggles for all applications involving chemical handling Gloves: Rubber, neoprene or other chemically impervious gloves be worn for all applications
Other Clothing and Equipment: Protective clothing to minimize contact (boots, apron, faceshield)
Ventilation: Open air or good room ventilation is normally adequate for safe use of this product. Avoid breathing vapors or fumes

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing:
Additional Information:
<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ...........: 1</td>
<td>Health Hazard ...........:</td>
</tr>
<tr>
<td>Fire Hazard .............: 0</td>
<td>Fire Hazard ............:</td>
</tr>
<tr>
<td>Reactivity ..............: 1</td>
<td>Reactivity ............:</td>
</tr>
<tr>
<td>Specific Hazard .........:</td>
<td>Personal Protection ....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

**Revision Date:** 8/6/2004

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Material Safety Data Sheet
Pan Pads Condensate Treatment

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Pan Pads Condensate Treatment
Synonyms: Condensate Drain Pan Treatment
EPA Regis. No. 33427-4-65516
EPA Est. No. 33427-NY-1
Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4295, 4296

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl (60% C14, 30% C16, 5% C12, 5% C18) Dimethyl benzyl ammonium chloride Monohydrate</td>
<td>98391-01-5</td>
<td>20</td>
<td>LD50: 500mg/kg</td>
<td>not est.</td>
</tr>
<tr>
<td>Alkyl (68% C12, 32% C14) Dimethyl ethylbenzyl ammonium chloride Monohydrate</td>
<td>68956-79-6</td>
<td>20</td>
<td>LD50: 500mg/kg</td>
<td>not est.</td>
</tr>
<tr>
<td>Borax</td>
<td></td>
<td>60</td>
<td>not est.</td>
<td>not est.</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: 14%
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: N/A
Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.): pH @ Solution:
P pH as Distributed:
Appearance: White tablet
Odor: odorless

IV - FIRE AND EXPLOSION

Flash Point F: Non Flammable Flammable Limits: N/A
Extinguishing Media: Water, CO₂, foam, dry chemical.
Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing.
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable.
Incompatibility: Strong oxidizers.
Hazardous Decomposition Products: Oxides of carbon, nitrogen, and other toxic decomposition products in case of incomplete combustion.
Conditions Contributing to Hazardous Polymerizations: N/A
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: Not known; expected to cause nausea and diarrhea.
EYES & SKIN: Severe irritation.
B. SUBCHRONIC, CHRONIC, OTHER: Product is not meant to be inhaled, ingested, or touched as implied by its
packaging, which doesn't permit skin contact.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Move person to fresh air.
EYES: SKIN: Flush/wash thoroughly for at least 15 minutes, for eyes, seek immediate medical attention.
INGESTION: Promptly drink large quantities of milk, egg whites, gelatin solution or water, avoid alcohol. Do not
induce vomiting. Seek medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Pick up material with scoop, shovel or vacuum and place in closed container. Flush area with
water.
Waste Disposal Methods: Dispose of in accordance with federal, state and local regulations. Pesticides are
acutely hazardous, and improper disposal of excess is a violation of Federal law.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None
Eye Protection: Safety glasses Gloves: Disposable
Other Clothing and Equipment: N/A
Ventilation: N/A

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Tablet should never be removed from its housing. It must not
come in contact with food. Avoid contact with skin and eyes. Store in cool, dry place.
Additional Information: Keep away from heat, sparks and flames. Do not take internally. For use by service
personnel only.

NFPA
Health Hazard............: 0
Fire Hazard...............: 0
Reactivity ...............: 0
Specific Hazard .........:

HMIS RATING
Health Hazard............: 0
Fire Hazard...............: 0
Reactivity ...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the
label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to
label instructions. While Seller believes that the information contained herein is accurate, such information is
offered solely for its customers' consideration and verification under their specific use conditions.
Material Safety Data Sheet
Pan -Spray Aerosol

I - PRODUCT IDENTIFICATION
Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Pan -Spray Aerosol
Synonyms: Rubberized Coating

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene *</td>
<td>1330-20-7</td>
<td></td>
<td>100 ppm</td>
<td>100 ppm</td>
</tr>
<tr>
<td>Aliphatic Hydrocarbon *</td>
<td>110-54-3</td>
<td></td>
<td>500 ppm</td>
<td>500 ppm</td>
</tr>
<tr>
<td>Poly (Butadiene-co-styrene)</td>
<td>9003-55-8</td>
<td></td>
<td>not established</td>
<td>not established</td>
</tr>
<tr>
<td>N-tallowalkyl trimethylene diamines ole.</td>
<td>91791-53-5</td>
<td></td>
<td>800 ppm</td>
<td>800 ppm</td>
</tr>
<tr>
<td>Hydrocarbon propellant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
* Subject to reporting requirements of SARA TITLE III, Section 313
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: <75 PSI
Evaporation Rate: VOC Content (% by wt.): 68%
Solubility in H₂O: Nil
pH @ Solution: pH as Distributed: Appearance: White coating
Freezing Point °F: Not determined
Boiling Point °F: Not determined
Specific Gravity H₂O=1 @25° C: 0.850
Odor:

IV - FIRE AND EXPLOSION

Flash Point °F: N/A Flammable Limits: Level 3 Aerosol
Extinguishing Media: Dry Chemical. CO₂, Halogenated Extinguishing Agent. Stop Gas Flow
Special Fire Fighting Procedures: Gas fires should not be extinguished unless the gas flow can be stopped immediately. Allow the fire to burn itself out. If the source cannot be shut off immediately, all equipment and surfaces exposed to the fire should be cooled with water to prevent over-heating, flash-backs, or explosions. Control fire until gas supply can be shut off. Use proper protective equipment. Use fresh air respirator when exposure to hazardous concentrations of toxic gases is possible.
Unusual Fire and Explosion Hazards: This product releases Flammable Vapors at well below ambient temperatures and readily forms flammable mixtures with air exposed to an ignition source. It will burn in the open or be explosive in confined spaces. Its vapors are heavier than air and may travel long distances to a point of ignition, and then flash back. Alkaline/chlorine gas mixtures have produced explosions.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Strong oxidizing agents
Hazardous Decomposition Products: None
Conditions Contributing to Hazardous Polymerizations: Not applicable
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): Inhalation - High vapor/aerosol concentrations (greater than approximately 100 ppm) are irritating to the eyes and the respiratory tract, may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.
EYES - Slightly irritating but does not injure eye tissue.
SKIN - Low order of toxicity. Frequent or prolonged contact may irritate and cause dermatitis. Skin contact may aggravate an existing dermatitis condition.
INGESTION - Small amounts of this product aspirated into the respiratory system during ingestion or vomiting may cause mild to severe pulmonary injury, possibly minimal toxicity
B. SUBCHRONIC, CHRONIC, OTHER: Health studies have shown that many hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Call for prompt medical attention.
EYES: Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.
SKIN: Flush with large amounts of water; use soap if available. Remove grossly contaminated clothing, including shoes, and launder before reuse.
INGESTION: If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Clean up area by mopping or with absorbant materials and place in closed container for disposal. Consult Federal, State, and local disposal authorities.
Waste Disposal Methods: Consult local authorities for proper waste disposal procedures. Empty de-pressurized containers can not be reused. Cans which are pressurized or contain liquid must be disposed of in a permitted waste management facility. Consult Federal, State and local disposal authorities for approved procedures.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Based on contamination level and working limits of the respirator, use a respirator approved by NIOSH/MSHA.
Eye Protection: Face shield and goggles or chemical goggles should be worn. Gloves: Impervious gloves should be worn. Gloves contaminated with the product should be discarded. Polyfluorinated polyethylene has been suggested.
Other Clothing and Equipment: Standard work clothing.
Ventilation: Use adequate level exhaust ventilation. Note: Where carbon monoxide may be generated, special ventilation may be required. Local exhaust recommended when appropriate to control employee exposure.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: When utilizing pressurized containers follow standard safety practices for handling aerosols.
Additional Information: Do not store at temperatures above 120°F. Odor is not an adequate warning of potentially hazardous concentrations in air. Releases of these gases may cause a flammable atmosphere with explosion potential,
NFPA
Health Hazard ..........: 2
Fire Hazard ..........: 4
Reactivity ..........: 0
Specific Hazard .......

HMIS RATING
Health Hazard ..........: 2
Fire Hazard ..........: 4
Reactivity ..........: 0
Personal Protection ....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Pan-Treat  
Synonyms: Condensate Pan Treatment  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4296-60

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>n-Alkyl(60% C14, 30% C16, 5% C12, 5% C18) dimethyl benzyl ammonium chloride.</td>
<td>98391-01-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No ingredients identified by OSHA or EPA as hazardous are known to be present. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A  
Evaporation Rate: N/A  
Solubility in H₂O: 100%  
Freezing Point °F: N/A  
Boiling Point °F: N/A  
Specific Gravity H₂O=1 @25° C: 0.981

Vapor Density (Air=1) 60-90° F: N/A  
VOC Content (% by wt.): 0  
PH @ Solution:  
pH as Distributed:  
Appearance: Solid tablets  
Odor:  

IV - FIRE AND EXPLOSION

Flash Point F: No flash - melting point is 225°F  
Flammable Limits: N/A N/A  
Extinguishing Media:  
Special Fire Fighting Procedures: Dry contained positive pressure breathing apparatus and protective clothing should be worn in fighting fires involving chemicals  
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable  
Incompatibility: Strong oxidizing agents  
Hazardous Decomposition Products: None known  
Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): INHALATION: Airborne particles irritates nasal passages. If vapors or dust causes irritation, remove to fresh air. EYES: Contact with eyes is painful and irritating. SKIN: Prolong or repeated contact with skin may cause irritation.  
B. SUBCHRONIC, CHRONIC, OTHER:  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Unnecessary exposure to this product should be avoided.
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Wash eyes with copious amounts of water for at least 15 minutes
SKIN: Wash skin with soap and water: rinse thoroughly
INGESTION: If ingested call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Sweep up and collect in appropriate container. Wash area with water
Waste Disposal Methods: May be disposed in a permitted landfill in accordance with Federal, state or local regulations

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Avoid contact with eyes Gloves: Not required, wash hands after handling.
Other Clothing and Equipment: Wear protective clothing for repeated or prolong contact.
Ventilation: Local exhaust

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Keep out of the reach of children. Do not store near fire or open flame.
Additional Information: Caution should be used to avoid contact with eyes or prolong contact with skin. Wash thoroughly after handling. If ingested call a physician immediately.

NFPA
Health Hazard ...........: Health Hazard ........... : 1
Fire Hazard...............: Fire Hazard............... : 0
Reactivity ...............: Reactivity ............... : 0
Specific Hazard .......: Personal Protection .... : X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Phase III Refrigeration Oil Test Kit (L)
Synonyms: Toluene / Alcohol Blend

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toluene*</td>
<td>108-88-3</td>
<td>&lt;50</td>
<td>200ppm</td>
<td>200ppm</td>
</tr>
<tr>
<td>Methanol**</td>
<td>67-56-1</td>
<td>&lt;35</td>
<td>200ppm</td>
<td>200ppm</td>
</tr>
<tr>
<td>Isopropanol***</td>
<td>67-63-0</td>
<td>&lt;30</td>
<td>400ppm</td>
<td>400ppm</td>
</tr>
</tbody>
</table>

*STEL=150ppm; **STEL=1250ppm; ***STEL=500ppm
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: Unknown
Evaporation Rate: (ether=1): N/AV
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: <212°
Specific Gravity H₂O=1 @25° C: .827

IV - FIRE AND EXPLOSION

Flash Point F: <55°F Flammable Limits: Unknown
Extinguishing Media: In case of fire use CO₂, foam or dry chemical.
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: Heat and open flame.
Incompatibility: Unknown.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYE & SKIN: May cause irritation. Prolonged and repeated contact to skin may result in dermatitis. INGESTION & INHALATION: Harmful if swallowed or inhaled. May cause nausea, dizziness and upset stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhaled, remove patient to fresh air.
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush with plenty of water. If irritation develops, call a physician.
INGESTION: If swallowed, DO NOT induce vomiting. Call a physician.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Flush away spill with plenty of water.
Waste Disposal Methods: Flush product waste down drain with plenty of water.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing vapors
Eye Protection: Safety glasses
Gloves: None required
Other Clothing and Equipment: None required.
Ventilation: None required.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing.
Additional Information: Keep away from heat, sparks. Wash hands after handling. Read and observe all label precautions.

NFPA
Health Hazard ...........: 1
Fire Hazard ...............: 2
Reactivity .................: 0
Specific Hazard ..........:

HMIS RATING
Health Hazard ............: 1
Fire Hazard ...............: 2
Reactivity .................: 0
Personal Protection......: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Phase III Refrigeration Oil Test Kit (S)
Synonyms: Potassium Hydroxide Solution (trace amount KOH-is not a corrosive)

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4320S

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride (ORAL LD50 = N/AV)</td>
<td>7647-14-5</td>
<td>&lt;5</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: N/A
- Evaporation Rate: (ether=1): N/AV
- Solubility in H₂O: Complete
- Freezing Point °F: N/A
- Boiling Point °F: Unknown
- Specific Gravity H₂O=1 @25° C: 1.106
- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.): Unknown
- pH @ Solution: N/A
- pH as Distributed: 10.9
- Appearance: Clear, colorless solution
- Odor: Characteristic

IV - FIRE AND EXPLOSION

- Flash Point F: No flash to boiling
- Flammable Limits: N/A
- Extinguishing Media: Product is non flammable
- Special Fire Fighting Procedures: None
- Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

- Stability - Conditions to avoid: None known.
- Incompatibility: Unknown.
- Hazardous Decomposition Products: Unknown.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYE & SKIN: May cause irritation. Prolonged and repeated contact to skin may result in dermatitis. INGESTION: May upset stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.
SKIN: In case of contact, flush with plenty of water. If irritation develops, call a physician.
INGESTION: If swallowed, DO NOT induce vomiting. Give large quantities of water or milk to drink. Give at least one ounce of vinegar in an equal amount of water. Never give anything by mouth to an unconscious person. Call a physician.


VIII - SPILL OR LEAK PROCEDURE

Spill Management: Flush away spill with plenty of water.
Waste Disposal Methods: Flush product waste down drain with plenty of water.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None required
Eye Protection: Safety glasses Gloves: None required
Other Clothing and Equipment: None required.
Ventilation: None required.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing. Wash hands after use.
Additional Information: Read and observe all label precautions.

NFPA
Health Hazard ..........: 1
Fire Hazard............: 0
Reactivity ..............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 1
Fire Hazard ............: 0
Reactivity ..............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Pipe-Dri

I - PRODUCT IDENTIFICATION
Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Pipe-Dri
Synonyms: Insulation Spray

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methylene Chloride*</td>
<td>75-09-2</td>
<td>60-75</td>
<td>50ppm</td>
<td>500ppm</td>
</tr>
<tr>
<td>Propane</td>
<td>74-98-6</td>
<td>&lt;5</td>
<td>1000ppm</td>
<td>1000ppm</td>
</tr>
<tr>
<td>Isobutane</td>
<td>76-28-5</td>
<td>&lt;5</td>
<td>800ppm</td>
<td>not est.</td>
</tr>
</tbody>
</table>

*SARA 313 Information: Subject to reporting and supplier notification of SARA 313
*RO #1000 lbs.
VOC Content: 25.00% By Weight
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: psig @ 25°C: 80
Evaporation Rate: (ether=1): <1
Solubility in H₂O: Insoluble
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: 1.25

IV - FIRE AND EXPLOSION

Flash Point F: N/A
Flammable Limits: LEL: Not Est. UEL: Not Est.
Extinguishing Media: CO₂, Standard foam, Dry chemical, Halon
Special Fire Fighting Procedures: Wear self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Exposure to temp. over 120°F may cause bursting or venting. Heat or fire may cause hazardous fumes: CO, phosgene chlorine and HCL.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable; avoid sources of heat.
Incompatibility: Oxidizing Materials.
Hazardous Decomposition Products: Will not occur.
Conditions Contributing to Hazardous Polymerizations: Open flames.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: Nausea, headache, vomiting. EYES: Moderate to severe irritation. SKIN: May cause irritation, due to defatting of tissues. INHALATION: Nausea, dizziness, coordination impairment on long exposure.
B. SUBCHRONIC, CHRONIC, OTHER:
C. MEDICAL CONDITIONS AGgravATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Give oxygen if breathing is difficult. Get medical attention.
EYES: Flush with large amounts of water for 15 minutes and get medical attention.
SKIN: Wash with soap and water. Remove contaminated clothing.
INGESTION: Do not induce vomiting. Get medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Small spills - Mop up, soak up immediately. Remove to outdoors. Large spills - Evacuate area. Contain liquid; transfer to closed metal containers. Keep out of water supply.
Waste Disposal Methods: Dispose of in accordance with federal, state and local regulations as well as EPA standards.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None
Eye Protection: Safety glasses
Gloves: Disposable
Other Clothing and Equipment: None
Ventilation: General ventilation recommended to maintain the level of the hazardous ingredients to less than half of the TLV

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not store where temperatures will exceed 120°F. Keep out of reach of children.
Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ......: 1</td>
<td>Health Hazard.........: 1</td>
</tr>
<tr>
<td>Fire Hazard..........: 0</td>
<td>Fire Hazard ............: 0</td>
</tr>
<tr>
<td>Reactivity ..........: 0</td>
<td>Reactivity ..............: 0</td>
</tr>
<tr>
<td>Specific Hazard .....:</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Pneu-flush
Synonyms: Hydrofluorocarbon

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4298

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decafluoropentane</td>
<td>138495-42-8</td>
<td>60-85</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Methanol</td>
<td>67-56-1</td>
<td>3-4</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Tetrafluoroethane (HFC-134a)</td>
<td>97-2</td>
<td>15-25</td>
<td>1000</td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>260 mm/Hg @ 77°F</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&gt;&gt;1 (ether=1)</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Minimal</td>
</tr>
<tr>
<td>Freezing Point °F</td>
<td>N/A</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>118°F</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>1.497</td>
</tr>
<tr>
<td>Vapor Density (Air=1) 60-90° F</td>
<td>Heavier than air</td>
</tr>
<tr>
<td>VOC Content (% by wt.)</td>
<td>100</td>
</tr>
<tr>
<td>pH @ Solution</td>
<td>N/A</td>
</tr>
<tr>
<td>pH as Distributed</td>
<td>N/A</td>
</tr>
<tr>
<td>Appearance</td>
<td>Colorless liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Ethereal odor</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: Non Flammable
Flammable Limits: Air, LEL=9% & UEL=11%
Extinguishing Media: CO₂, dry chemical or water
Special Fire Fighting Procedures: Wear self-contained NIOSH approved breathing apparatus and proper eye and skin protection.

Unusual Fire and Explosion Hazards: Containers generate pressure when heated, causing violent bursting and dangerous propelling of container. Cool containers with water spray or fog.

V - REACTIVITY DATA

Stability - Conditions to avoid: Material is stable - Avoid high temperatures or open flames which may cause decomposition.
Incompatibility: Avoid strong bases, reactive materials (e.g. powdered aluminum, sodium, potassium, calcium, magnesium, zinc, molten aluminum, barium & lithium shavings).

Hazardous Decomposition Products: Hydrochloric and hydrofluoric acids, and possibly carbonyl halides.
Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   INHALATION: Gross overexposure may cause: suffocation if air is dislocated by vapor, irregular heart beat with a strange sensation in the chest, lightheadedness, dizziness, fainting, drowsiness. It is unlikely that concentrations sufficient to produce these effects would be achieved without producing other signs of overexposure such as irritation of the nose and throat with sneezing, sore throat, or runny nose. ORAL: Short term exposure may cause irritation of digestive tract, stomach pain, nausea, vomiting or diarrhea. Liquid which may enter the lungs may result in "chemical pneumonia". SKIN: Slight irritation with redness, itching or swelling may occur. Defatting of the skin can occur with repeated overexposure. EYES: Liquid contact: Will irritate eyes and may cause redness, swelling, pain, tearing and hazy vision.

B. SUBCHRONIC, CHRONIC, OTHER:
   CARCINOGENICITY: None of the components of Air Line Flushing Solvent are listed as carcinogens by NTP, IARC, or OSHA

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Call physician.
EYES: In case of contact, flush with water for 15 minutes, lifting eyelids occasionally until no evidence of the chemical remains. If irritation persists, call physician.
SKIN: Wash promptly with soap and water for at least 15 minutes. Remove contaminated clothing and shoes.
INGESTION: If conscious, give 2-4 glasses of water and induce vomiting by touching finger to back of throat. Do not give stimulants. Contact physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Spill, Leak or Release: Although the chances of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, evacuate area, absorb spilled liquid with commercial nonflammable absorbent, (i.e. sand, vermiculite). Remove unprotected personnel. Protected personnel should remove ignition sources and shut off fire sources. Provide ventilation. Shovel (spark proof) absorbent material into drums and close. Do not flush to sewer.
Waste Disposal Methods: Comply with Federal, State and Local regulations. Consult appropriate regulatory agency prior to disposal or discharge of waste material.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None required in ventilated work areas. Although unlikely in aerosol packaging, in NIOSH approved self-contained or supplied air respirators for emergencies and in situations where air may be displaced by vapors.
Eye Protection: Chemical protective safety glasses. Gloves: For long repeated contact, impervious gloves.
Other Clothing and Equipment: Protective clothing for prolonged or repeated contact.
Ventilation: Adequate. Local Exhaust: For poorly ventilated work areas. Mechanical: Adequate for storage.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid breathing vapors. Use only with adequate ventilation. Avoid lighted cigarettes, flame, welding or hot spots which may generate toxic decomposition products. Vapors are heavy and may concentrate in low poorly ventilated areas.
Additional Information:
<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ........: 1</td>
<td>Health Hazard.........: 1</td>
</tr>
<tr>
<td>Fire Hazard...........: 0</td>
<td>Fire Hazard ............: 0</td>
</tr>
<tr>
<td>Reactivity ............: 1</td>
<td>Reactivity .............: 1</td>
</tr>
<tr>
<td>Specific Hazard ........:</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Presst-O-Cel Insulation Tape  
Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300  
Product Number: 4218

II - HAZARDOUS INGREDIENTS OF MIXTURES

MATERIAL  CAS#  % By Wt  TLV  PEL
None  
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A  
Evaporation Rate: (ether=1): N/A  
Solubility in H₂O: Not soluble  
Freezing Point °F: N/A  
Boiling Point °F: N/A  
Specific Gravity H₂O=1 @25° C: N/A

IV - FIRE AND EXPLOSION

Flash Point F: >25°F  
Extinguishing Media: Carbon Dioxide, ABC dry chemical, water spray or fog, foam  
Special Fire Fighting Procedures: Use self-contained breathing apparatus when fighting fire in enclosed areas. Do not breath fumes.  
Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable - none  
Incompatibility: Strong oxidizing agents.  
Hazardous Decomposition Products: CO₂; CO; hydrocarbons chlorine containing compounds and smoke.  
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: N/A, EYES & SKIN: None
B. SUBCHRONIC, CHRONIC, OTHER: None known.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:  

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A  
EYES: N/A  
SKIN: N/A  
INGESTION: N/A
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Recover material and place in a proper container for reuse or disposal.
Waste Disposal Methods: In an approved landfill, or incinerated under specific conditions.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: N/A
Eye Protection: N/A Gloves: N/A
Other Clothing and Equipment: Eye wash and safety shower to be available.
Ventilation: General dilution; 9000 cfm dilution.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Store in a cool dry place.
Additional Information: None

NFPA
Health Hazard ...........: 0
Fire Hazard...............: 0
Reactivity .................: 0
Specific Hazard ..........:

HMIS RATING
Health Hazard.............: 0
Fire Hazard ...............: 0
Reactivity ..................: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Tel No: (314) 469-7000, (800) 554-5499  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
CHEMTREC: (800) 424-9300  
Product Name: Quick Seal Pipe Repair  
Product Number: 4299-W  
Synonyms: Resin impregnated fiberglass tape

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>polypropylene polyol diphenyl</td>
<td>9048-57-1</td>
<td>34.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>methane</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>di-isocyanate prepolymer</td>
<td>101-68-8</td>
<td>7.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>methylene bisphenyl</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>isocyanate (MDI)</td>
<td></td>
<td>trace</td>
<td></td>
<td></td>
</tr>
<tr>
<td>silicone</td>
<td></td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>synthetic rubber</td>
<td></td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>aluminum foil pouch</td>
<td></td>
<td>46.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>fiberglass knit fabric</td>
<td></td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>polyethylene core</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A  
Evaporation Rate: N/A  
Solubility in H₂O: Nil  
Freezing Point °F: N/A  
Boiling Point °F: N/A  
Specific Gravity H₂O=1 @25° C: 1.23@110°F

(prepolymer)

Vapor Density (Air=1) 60-90° F: N/A  
VOC Content (% by wt.): N/A  
pH @ Solution:  
pH as Distributed: N/A  
Appearance: White to yellowish, tacky resin on a fiberglass roll.  
Odor: Very slight odor.

IV - FIRE AND EXPLOSION

Flash Point °F: ASTM D-93 (closed cup) >350°F; nil for cured product. Flammable Limits: Nil N/A  
Extinguishing Media: H₂O spray, foam, CO₂, dry chemicals.  
Special Fire Fighting Procedures: Keep undamaged product cool with H₂O fog while fighting fire. Firefighters to wear self-contained breathing apparatus and full protective clothing.  
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable, Polymerization may occur if material is heated for long periods. Contamination by moisture or materials that react with isocyanates may cause pressure build-up.  
Incompatibility: None  
Hazardous Decomposition Products: None  
Conditions Contributing to Hazardous Polymerizations: May occur. Excessive moisture and/or heat; store in cool, dry conditions.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   INHALATION: Avoid breathing dust from cutting cured product. A vacuum saw is recommended. SKIN: Minor irritation. Wash thoroughly with soap and water. INGESTION: Drink plenty of water. Consult physician. DO NOT induce vomiting. EYES: Irritation. Rinse with water for 15 minutes and consult physician.
B. SUBCHRONIC, CHRONIC, OTHER: N/A
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Open cuts or abrasions or rashes on skin.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Provide fresh air.
EYES: Rinse with water for at least 15 minutes. Consult physician.
SKIN: Wash thoroughly with soap and water.
INGESTION: Drink plenty of water. Consult physician. DO NOT induce vomiting.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: If package spills or breaks, ensure ventilation is adequate to prevent build up of potentially harmful vapors. Scrape up material and place into labeled sealable container for disposal. Decontaminate area and equipment with dilute ammonia and detergent. Mix additional absorbent into spill and dispose.
Waste Disposal Methods: Solid waste land fill or authorized incineration.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Eye Protection: Safety Glasses
Gloves: Gloves Provided
Other Clothing and Equipment: Quick Seal will adhere to clothing. Wear gloves while handling uncured product. Avoid eye and skin contact.
Ventilation: Removal of old bandages with oscillating saws without adequate ventilation will potentially cause irritant dusts to be generated into atmosphere. The use of shears is recommended to remove old bandages from pipes so as to minimize dust formation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Store in a cool, dry, well ventilated area out of direct sunlight. Store away from all heat sources. Optimum storage conditions 40-83°F. For best results, rotate stock.
Additional Information: N/A

NFPA    HMIS RATING
Health Hazard ..........: 0          Health Hazard ..........: 0
Fire Hazard ............: 0           Fire Hazard ............: 0
Reactivity .............: 1            Reactivity .............: 1
Specific Hazard .......:              Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Quick Seal Pipe Repair
Synonyms: Epoxy adhesive (putty)

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4299-P

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,4,6 Tri (methyl aminomethyl)</td>
<td>90-72-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>phenol</td>
<td></td>
<td>25068-38-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Epoxy resin</td>
<td></td>
<td>unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mercaptan Terminated Polymer</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: N/A
- Evaporation Rate: N/A
- Solubility in H₂O: Negligible
- Freezing Point °F: N/A
- Boiling Point °F: N/A
- Specific Gravity H₂O=1 @25°C: 1.9

- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.):

<table>
<thead>
<tr>
<th>pH @ Solution:</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH as Distributed:</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Odor: Slight Mercaptan</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

- Flash Point F: N/A
- Flammable Limits: N/A
- Extinguishing Media: Water spray, CO₂, dry chemical.
- Special Fire Fighting Procedures: Wear SCBA and protective clothing.
- Unusual Fire and Explosion Hazards: May generate toxic or irritating fumes.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable - None.
- Incompatibility: Oxidizers.
- Hazardous Decomposition Products: Aldehydes, acids, CO, sulfur oxides.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   INHALATION: N/A
   SKIN: Severe Irritation
   EYES: Severe Irritation
   INGESTION: Nausea.
B. SUBCHRONIC, CHRONIC, OTHER:
Prolonged skin or eye exposure may cause irritation, sensitization.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: N/A

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush with large amounts of water for 15 minutes. Seek medical attention.
SKIN: Wash with soap and water. If irritation persists, seek medical attention.
INGESTION: Give large amounts of water. Induce vomiting. If unconscious, do not give anything by mouth or induce vomiting. Seek medical attention.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Pick up spilled paste to prevent disposal in sewers, waterways or soil. Wear polyethylene gloves.

Waste Disposal Methods: Collect and dispose of as non-hazardous in accordance with all local, state, and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None
Eye Protection: Safety glasses Gloves: Polyethylene Gloves
Other Clothing and Equipment: N/A
Ventilation: Local exhaust acceptable.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Keep container closed when not in use. Do not stand near heat, sparks or open flame.
Additional Information: Keep out of reach of children. Wash thoroughly before eating, drinking, smoking, or leaving work area.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard .............</td>
<td>Health Hazard ............. : 2</td>
</tr>
<tr>
<td>Fire Hazard ...............</td>
<td>Fire Hazard ............... : 0</td>
</tr>
<tr>
<td>Reactivity ................</td>
<td>Reactivity ................ : 0</td>
</tr>
<tr>
<td>Specific Hazard .........</td>
<td>Personal Protection .... : X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Rx11-flush

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Rx11-flush
Synonyms: Hydrofluorocarbon

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4300-11

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>tetrafluoroethane</td>
<td>811-97-2</td>
<td>10-20</td>
<td>1000 ppm</td>
<td></td>
</tr>
<tr>
<td>1,1,1,2,3,4,4,5,5,5-decafluoropentane</td>
<td>138495-42-8</td>
<td>15-35</td>
<td>200 ppm*</td>
<td></td>
</tr>
<tr>
<td>decachloropentane</td>
<td>156-60-5</td>
<td>50-75</td>
<td>200 ppm</td>
<td></td>
</tr>
<tr>
<td>1,2-trans-dichloroethylene</td>
<td>64-17-5</td>
<td>5-20</td>
<td>1000 ppm</td>
<td></td>
</tr>
<tr>
<td>ethyl alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*No Federal OSHA PEL or TLV values are established for this compound. The 200 ppm is the Acceptable Exposure Limit established by DuPont as an 8 hour & 12 hour time weighted average; 400 ppm has been established as ceiling limit. All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure: 5.05 psig @70°F</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate: (ether=1) &gt;1</td>
<td></td>
</tr>
<tr>
<td>Solubility in H₂O: 0.4%</td>
<td></td>
</tr>
<tr>
<td>Freezing Point °F:</td>
<td></td>
</tr>
<tr>
<td>Boiling Point °F: 106°F</td>
<td></td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C: 1.206 (10.06 lbs/gal)</td>
<td></td>
</tr>
<tr>
<td>VOC Content (% by wt.): 100</td>
<td></td>
</tr>
<tr>
<td>pH as Distributed: N/E</td>
<td></td>
</tr>
<tr>
<td>Appearance: Colorless liquid</td>
<td></td>
</tr>
<tr>
<td>Odor: Ethereal odor</td>
<td></td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point F: Not flammable per Tag Closed Cup and Pensky-Martens Closed Cup. Flash Point is 82.4°F (no fire point) bt Tag Open Cup. **Flammable Limits:** % vol LEL=5.0% UEL=14.4%

Extinguishing Media: CO₂, dry chemical or water

Special Fire Fighting Procedures: Keep containers cool with water spray. Wear self-contained NIOSH approved breathing apparatus and proper eye and skin protection.

Unusual Fire and Explosion Hazards: Container generates pressure when heated, causing violent bursting and dangerous propelling of container. May form toxic decomposition products above 480° F. This material should not be used in vapor degreasers or applications where the solvent is heated above ambient temperatures. Rx11-flush exhibits no Tag Closed Cup flash point to boiling. Since Rx11 is a mixture, fractionation may occur upon evaporation, resulting in a solution enriched in flammable liquids. Take precautions to avoid this condition.

V - REACTIVITY DATA

Stability - Conditions to avoid: Material is stable at normal room temperatures and storage conditions. May decompose at temperatures above 480°F.

Incompatibility: Avoid strong bases, reactive metals (e.g. powdered aluminum, sodium, potassium, calcium, magnesium, zinc, molten aluminum, barium and lithium shavings. Strong oxidizing agents.

Hazardous Decomposition Products: This material can be decomposed by open flame, glowing metal surfaces, etc., forming hydrochloric and hydrofluoric acids, and possibly carbonyl halides.

Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure):

INHALATION: Effects may include: Temporary central nervous system depression with anaesthetic effects such as dizziness, headache, confusion, incoordination, drowsiness and loss of consciousness; temporary lung irritation effects with discomfort, pulmonary edema (body fluid in the lungs) with cough, wheezing, abnormal lung sounds, possibly progressing to serve shortness of breath and bluish discoloration of the skin; abnormal liver function as detected by laboratory tests; altered white blood cell count; nonspecific discomfort, such as nausea and vomiting, or weakness may also occur; symptoms may be delayed. These effects are similar to intoxication caused by ethyl alcohol. Prolonged exposure to very high concentrations (>25% in air) may cause temporary alteration of the heart's electrical activity with irregular pulse, palpitations, or inadequate circulation. ORAL: Based on animal data, this material may cause pathological changes in the kidneys. SKIN: Skin contact may include severe skin irritation with burning, redness, swelling, rash, discomfort or pain. EYES: Persons wearing contact lenses should wear chemical protective safety glasses when using this product. Liquid contact: eye contact may include severe eye irritation with burning, redness, swelling, rash, discomfort or pain. Vapor Contact: mild irritant. Individuals with chronic respiratory diseases may have increased susceptibility to the toxicity of excessive exposures. Increased susceptibility of the effects of

B. SUBCHRONIC, CHRONIC, OTHER:

The components of Rx11-flush are not listed as carcinogens by NTP, IARC, or OSHA.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Do not give Epinephrine. Give artificial respiration if necessary. Call a physician.

EYES: Persons with contact lenses should wear chemical protective safety glasses when using this product. Flush with water for 15 minutes, lifting eyelids occasionally until no evidence of the chemical remains. Call a physician.

SKIN: Wash promptly with soap and water for at least 15 minutes. Remove contaminated clothing and shoes.

INGESTION: Material poses an aspiration hazard. If swallowed, do not induce vomiting. Immediately give two glasses of water. Never give anything by mouth to an unconscious person. Do not give stimulants. Contact physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Chances of a significant leak of an aerosol are nil. However, in the event of such an occurrence, evacuate area and absorb the spilled liquid with a nonflammable absorbent (i.e. sand, vermiculite). Remove unprotected personnel. Protected personnel should remove ignition sources and shut off fire source. Provide ventilation. Shovel (spark proof) absorbent material into drums and close.

Waste Disposal Methods: Comply with Federal, State and local regulations. Consult appropriate regulatory agency prior to disposal or discharge of waste material. Do not flush to sewer.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None required in ventilated work areas. In unlikely event that product vapor is released to ambient air, use NIOSH-approved self-contained or air respirators for emergencies and where air may be displaced by vapors.


Other Clothing and Equipment: Protective clothing for prolonged or repeated contact: PVA or neoprene preferred.

Ventilation: Adequate. Use local exhaust for poorly ventilated areas.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid breathing vapors. Use only with adequate ventilation. Avoid lit cigarettes, flame, welding or hot spots which may generate toxic decomposition products. Vapors are heavy and may concentrate in poorly ventilated areas.

Additional Information:
NFPA
Health Hazard ..........: 1
Fire Hazard ............: 1
Reactivity ..............: 1
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 1
Fire Hazard ............: 1
Reactivity ..............: 1
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Rx-Acid Scavenger

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Rx-Acid Scavenger
Synonyms: Acid neutralizer

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4301

II - HAZARDOUS INGREDIENTS OF MIXTURES

MATERIAL CAS# % By Wt TLV PEL
No hazardous ingredients are contained in the product. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A
Evaporation Rate: N/A
Solubility in H₂O: Insoluble
Freezing Point °F: N/A
Boiling Point °F: 315°C
Specific Gravity H₂O=1 @25°C: 0.88 (+/-0.03)
Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.):
P pH @ Solution: N/A
pH as Distributed: N/A
Appearance: Clear, straw-colored liquid
Odor: Mild aromatic

IV - FIRE AND EXPLOSION

Flash Point F: 148.9 oF ((open cup)
Flammable Limits: N/A
Extinguishing Media: CO₂, dry chemical, water spray, fog or foam
Special Fire Fighting Procedures: For fires involving this material, do not enter any closed or confined fire space without proper protection equipment. This may include self-contained breathing apparatus to protect against the hazardous effect of normal products of combustion or oxygen deficiency.
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable - Strong oxidizers, heat, sources of ignition
Incompatibility: Reactive with oxidizing agents, acids, alkalis
Hazardous Decomposition Products: By fire or thermal decomposition: CO, CO₂, oxides of nitrogen, traces of hydrogen cyanide (HCN), 2,6-diisopropylphenyl isocyanate (DIPPI), aniline derivatives, and carbamates may be produced. At temperatures above 350°F (180°C) the aromatic urea formed from the carbodiimide-water reaction thermally degrades to the corresponding isocyanate and amine.
Conditions Contributing to Hazardous Polymerizations: Will not occur
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): CAUTION: May cause respiratory tract, eye and skin irritation. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. Do not ingest. SKIN & EYES: moderately irritating to eyes and skin. INHALATION: moderately irritating to the respiratory system. INGESTION: may cause gastrointestinal irritation and diarrhea
B. SUBCHRONIC, CHRONIC, OTHER: See hazardous decomposition statement in section V-Reactivity Data. These isocynate compounds can cause allergic skin and respiratory reactions, as well as acute irritation effects to the eyes, skin, mucous membranes, and digestive tract.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Repeated or prolonged contact is not known to aggravate medical condition

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
EYES: Check for and remove any contact lenses. In case of contact, flush eyes with plenty of water for at least 15 minutes. If irritation develops, get medical attention.
SKIN: In case of contact, flush with plenty of water. If irritation develops, get medical attention. Remove contaminated clothing & shoes. Wash clothing and shoes before reuse.
INGESTION: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Absorb spill with an inert material and put into an appropriate waste disposal. Do not allow to enter drains or waterways.
Waste Disposal Methods: Waste must be disposed of in accordance with federal, state and local environmental control regulations

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Respiratory protection is not required for the use of this product. Wear appropriate respirator when ventilation is inadequate.
Eye Protection: Safety glasses with side shield or chemical goggles. Gloves: Impervious gloves.
Other Clothing and Equipment: Wear appropriate protective clothing and chemically resistant gloves to prevent skin contact.
Ventilation: Provide exhaust ventilation or other engineered controls to keep airborne concentrations of vapors in control. Ensure that eyewash stations and safety showers are available.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing:
Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Safety Sorbent
Synonyms: Amorphous Silicate

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4816

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorphous Mineral Silicate (no free silica)</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All components are non-hazardous. Product is inert, non-biodegradable and non-toxic. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: N/A
Evaporation Rate: N/A
Solubility in H₂O: Negligible
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: 2.2 - 2.4

Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.): N/A
pH @ Solution: N/A
pH as Distributed: N/A
Appearance: Shades of Grey
Odor: Odorless

IV - FIRE AND EXPLOSION

Flash Point F: Non-Flammable
Flammable Limits: N/A
Extinguishing Media: N/A
Special Fire Fighting Procedures: N/A
Unusual Fire and Explosion Hazards: N/A

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Do NOT use with HYDROFLUORIC ACID (HF). Sorbent will react with HF.
Hazardous Decomposition Products: N/A
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INHALATION: No. SKIN: No. INGESTION: No.
B. SUBCHRONIC, CHRONIC, OTHER: No known acute or chronic health hazards. Under windy conditions, sorbent can be a nuisance dust.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: N/A
SKIN: N/A
INGESTION: N/A
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Vacuum or sweep up. Maintain good housekeeping procedures regarding dust.
Waste Disposal Methods: Material itself if non-hazardous and may be disposed of in any landfill as defined by RCRA (40 CFR Part 261). After absorption of hazardous or toxic liquid, follow local, state or federal regulations for proper disposal methods.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: N/A
Eye Protection: N/A Gloves: Normally none required.
Other Clothing and Equipment: Normally none required. Special consideration should be given to liquids absorbed.
Ventilation: N/A

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: None
Additional Information:

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard: 0</td>
<td>Health Hazard ..........: 0</td>
</tr>
<tr>
<td>Fire Hazard: 0</td>
<td>Fire Hazard ..........: 0</td>
</tr>
<tr>
<td>Reactivity: 0</td>
<td>Reactivity ..........: 0</td>
</tr>
<tr>
<td>Specific Hazard:</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Scrubs
Synonyms: Waterless Hand Cleaner Towel

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adepsine Oil</td>
<td>8052-41-3</td>
<td>N/A</td>
<td>100ppm</td>
<td>100ppm</td>
</tr>
</tbody>
</table>

This product is not known to contain any compound in concentrations requiring reporting under SARA Title III, Section 313. All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: N/A
- Evaporation Rate: (ether=1): N/A
- Solubility in H₂O: Dispersible
- Freezing Point °F: N/A
- Boiling Point °F: 212°
- Specific Gravity H₂O=1 @25° C: 0.97
- Vapor Density (Air=1) 60-90° F: >1
- VOC Content (% by wt.):
- pH @ 100% Solution: 8.25 +/- 0.5
- pH as Distributed:
- Appearance: Opaque white liquid saturated onto towels
- Odor: Citrus (orange)

IV - FIRE AND EXPLOSION

- Flash Point F: None to boiling
- Flammable Limits: No data
- Extinguishing Media: CO₂, dry chemical, foam, fog or water spray.
- Special Fire Fighting Procedures: Keep containers cool and vapors down with water spray.
- Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable
- Incompatibility: Strong oxidizers and acids
- Hazardous Decomposition Products: CO, CO₂, H₂S, sulfur dioxide, smoke, soot
- Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): INGESTION: May cause irritation of throat or stomach, nausea, vomiting and diarrhea if swallowed. EYES: May cause irritation.
B. SUBCHRONIC, CHRONIC, OTHER: Pre-existing skin conditions may be aggravated.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: & SKIN: Flush with water for 15 minutes, lifting eyelids. See a physician immediately.
INGESTION: Not a likely exposure route. If a large quantity of liquid is swallowed, do not induce vomiting. Call a physician or poison center immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Caution: slip hazard. Wipe up small releases with a dry absorbent. For large releases, prevent material from entering sewers or drains.
Waste Disposal Methods: Consult local, state or federal regulations. Discard empty container.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None
Eye Protection: None Gloves: None
Other Clothing and Equipment: Not usually necessary.
Ventilation: Nothing special usually needed.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: For external use only. Do not allow to contact eyes. Do not smoke while using - not for use around mouth or eyes.

NFPA
Health Hazard ...........: 1
Fire Hazard..............: 1
Reactivity ................: 0
Specific Hazard .......:

HMIS RATING
Health Hazard.............: 1
Fire Hazard ..............: 1
Reactivity ...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Season Start

Synonyms: Sulfamic Acid

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4360-88

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfamic Acid (ORAL LD50 - Rat 1600mg/kg)</td>
<td>5329-14-6</td>
<td>97</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: Appreciable
Freezing Point °F: N/A
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: N/A

Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.):

pH @ 1% Solution: 1.25
pH as Distributed: N/A
Appearance: Purple flowing granules
Odor: Pungent odor

IV - FIRE AND EXPLOSION

Flash Point F: N/A Flammable Limits: N/A
Extinguishing Media: Product is non flammable. In the event of fire, use water, chemical foam, dry chemical, CO₂.
Special Fire Fighting Procedures: Water solutions of this compound result in strong acids.
Unusual Fire and Explosion Hazards: May release SO₂, SO₃ or NH₃ gases if involved in a fire.

V - REACTIVITY DATA

Stability - Conditions to avoid: If heated releases SO₂, SO₃ or NH₃ gases.
Incompatibility: Alkali, chlorine sources (bleaches).
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Causes burns to both eyes and skin. INGESTION: Harmful if swallowed. Will burn mouth, throat and stomach. INHALATION: Irritates nose, throat and skin.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Call a physician.
EYES: Flush eyes with plenty of water for at least 15 minutes. Call a physician.
SKIN: Flush skin with plenty of water for at least 15 minutes. If irritation develops, call a physician.
INGESTION: DO NOT induce vomiting. Give large quantities of water. Give at least 1 ounce of milk of magnesia or aluminum hydroxide gel in equal amounts of water. If not available, the whites of 2 - 3 eggs may be used. Never give anything by mouth to an unconscious person. Call a physician.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Cautiously cover spill with bicarbonate of soda or soda ash - slaked lime mixture (50 - 50). Mix and flush to discharge using plenty of water in accordance with local, state and federal laws.  
Waste Disposal Methods: Cautiously stir product waste in large volume of soda ash - slaked lime solution. Flush neutralized solution and discharge in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: NIOSH - approved filter respirator recommended in case of dust.  
Eye Protection: Goggles or face shield  
Gloves: Rubber gloves  
Other Clothing and Equipment: Wash protective clothing.  
Ventilation: Local and mechanical exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not get in eyes, on skin or clothing. Keep from contact with chlorine bleaches. Wash thoroughly after handling. Keep container dry.  
Additional Information: Read and observe all label precautions.

NFPA
Health Hazard ..........: 1
Fire Hazard...............: 0
Reactivity .................: 1
Specific Hazard ..........:

HMIS RATING
Health Hazard.............: 1
Fire Hazard.................: 0
Reactivity..................: 1
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Season Treat
Synonyms: Polyphosphate Glass

II - HAZARDOUS INGREDIENTS OF MIXTURES

According to the OSHA Hazard Communications Standard, (29CFR 1910.1200), this product contains no hazardous ingredients. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Solid
Evaporation Rate: (ether=1) N/A
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: Solid
Specific Gravity H₂O=1 @25° C: Solid

IV - FIRE AND EXPLOSION

Flash Point °F: Non flammable Flammable Limits: N/A
Extinguishing Media: Product is non flammable.
Special Fire Fighting Procedures: None.
Unusual Fire and Explosion Hazards: None known.

V - REACTIVITY DATA

Stability - Conditions to avoid: Wet storage.
Incompatibility: Strong oxidizer.
Hazardous Decomposition Products: Unknown.
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Results from acute toxicity testing show that the material would not be considered toxic as defined by the CPSC protocol. However, product has sharp edges which can cause skin abrasions.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.
SKIN: Wash affected area thoroughly. Contact a physician if irritation develops.
INGESTION: N/A Good first aid should be followed in all cases of exposure.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Sweep up spilled material and dispose of with other solid wastes. Product is slippery when wet.
Waste Disposal Methods: Disposal of product should be in adherence with above described (or similarly approved) disposal procedure. Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Normally not required. Gloves: Rubber gloves
Other Clothing and Equipment: Not required
Ventilation: Normal.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep container closed. Exercise caution in the storage and handling of all chemical substances.
Additional Information: Read and observe all labeled precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 0</td>
<td>Health Hazard ..............: 0</td>
</tr>
<tr>
<td>Fire Hazard ............: 0</td>
<td>Fire Hazard ..............: 0</td>
</tr>
<tr>
<td>Reactivity .............: 0</td>
<td>Reactivity ..............: 0</td>
</tr>
<tr>
<td>Specific Hazard .......:</td>
<td>Personal Protection ....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
System Cleaner, Liquid

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: System Cleaner, Liquid
Synonyms: Emulsifier, cleaner for closed/new systems

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>&lt;20</td>
<td>2mg/m3</td>
<td>2mg/m3</td>
</tr>
<tr>
<td>Sodium Metasilicate pentahydrate</td>
<td>10213-79-3</td>
<td>5-15</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Tetrapotassium pyrophosphate</td>
<td>7320-34-5</td>
<td>&lt;10</td>
<td>N/E</td>
<td>N/E</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Similar to water
Evaporation Rate: Similar to water
Vapor Density (Air=1) 60-90° F: Similar to water
VOC Content (% by wt.): None
pH @ Solution:
pH as Distributed: 14
Appearance: Clear, pale yellow liquid
Odor: Chemical

IV - FIRE AND EXPLOSION

Flash Point F: >200°F Flammable Limits: N/A N/A
Extinguishing Media: Use extinguishing media appropriate for the surrounding fire
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. A self-contained breathing apparatus and protective clothing are essential.
Unusual Fire and Explosion Hazards: Product emits toxic gases under fire conditions.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Strong oxidizers and acids. Will react violently with acids.
Hazardous Decomposition Products: Thermal decomposition or combustion may produce oxides of carbon, nitrogen, phosphorous, and dipotassium oxide.
Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure):
   EYE: Product may cause severe eye irritation or damage upon contact with the eye. SKIN: Exposure may cause irritation of the skin. If not removed promptly, burns may result. The extent of injury depends upon the duration of contact. INGESTION: Ingestion of the product may cause severe irritation or burns to the mucous membranes of the mouth, throat, esophagus and stomach. INHALATION: Breathing mists of this product may be irritating to the respiratory system. Breathing vapors may cause drowsiness, dizziness and headache.

B. SUBCHRONIC, CHRONIC, OTHER: The effects of chronic exposure to the eyes and skin are dependent upon the concentration and duration of the exposure. Effects similar to those for acute exposure may occur. Chronic inhalation of product mists may result in irritation of or damage to the tissues of the respiratory system, and an increased susceptibility to respiratory illness.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product.

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: If inhalation occurs, remove to fresh air. If not breathing, give artificial respiration. Seek medical aid.
EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention immediately.
SKIN: Immediately rinse the affected area with water while removing contaminated clothing. Seek medical aid. Wash clothing before reuse.
INGESTION: If swallowed, DO NOT induce vomiting. Give large quantities of water. Seek medical aid immediately. Never give anything by mouth to an unconscious person.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Wear appropriate personal protective equipment. Contain spill, collect onto inert absorbent and place into suitable container.
Waste Disposal Methods: Follow local, state and Federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: If airborne concentrations exceed published exposure limit, use a NIOSH approved respirator in accordance with OSHA respiratory requirements (29 CFR 1910.134).
Eye Protection: Chemical splash goggles and face shield. Gloves: Chemical resistant gloves and clothing.
Other Clothing and Equipment: An eye wash station safety shower should be accessible in the immediate area of use. Protective equipment should be cleaned thoroughly after each use.
Ventilation: Use local exhaust ventilation where mist or spray maybe generated.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing mist or vapor. Use with adequate ventilation. Wash thoroughly after handling. Keep container closed when not in use.
Additional Information: Do not store near incompatible materials.

NFPA
Health Hazard...........: 3
Fire Hazard...............: 1
Reactivity ................: 1
Specific Hazard ..........:

HMIS RATING
Health Hazard..........: 3
Fire Hazard ..........: 1
Reactivity ..........: 1
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgan Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Thermo Trap
Synonyms: Clay Emulsion

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4371

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>According to the OSHA Hazard Communications Standard, 29 CFR 1910.1200, this product contains no hazardous ingredients. VOC Content: 0.00 All ingredients are TSCA listed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

II - PHYSICAL DATA

Vapor Pressure: mm Hg: 15.5
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: None
Freezing Point ºF: N/A
Boiling Point ºF: 212º
Specific Gravity H₂O=1 @25º C: 1.02

Vapor Density (Air=1) 60-90º F: N/AV
VOC Content (% by wt.): 95
pH @ Solution: N/A
pH as Distributed: N/A
Appearance: Grey - white dispersion
Odor: No odor

IV - FIRE AND EXPLOSION

Flash Point F: None Flammable Limits: N/A
Extinguishing Media: None
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: N/AV
Incompatibility: N/AV
Hazardous Decomposition Products: N/AV
Conditions Contributing to Hazardous Polymerizations: N/AV

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): 50 mppcf or 15mg/m³ (nuisance dust) OSHA STANDARD-DRY DUST ONLY. INHALATION: Prolonged inhalation of dust may result in irritation of respiratory tract.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air.
EYES: Flush with water. If an irritation develops, contact a physician.
SKIN: Flush with water. If an irritation develops, contact a physician.
INGESTION: Call a physician.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Normal precautions should be observed in case of spills. Avoid prolonged inhalation.
Waste Disposal Methods: Dispose of in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: The use of NIOSH - approved respirator may be recommended
Eye Protection: Safety goggles Gloves: None required
Other Clothing and Equipment: None required.
Ventilation: Local exhaust.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Normal precautions should be provided.
Additional Information: Read and observe all label precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 0</td>
<td>Health Hazard ..........: 0</td>
</tr>
<tr>
<td>Fire Hazard ............: 0</td>
<td>Fire Hazard ............: 0</td>
</tr>
<tr>
<td>Reactivity ............: 0</td>
<td>Reactivity ............: 0</td>
</tr>
<tr>
<td>Specific Hazard .......: 0</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

**Company Name:** Nu-Calgon Wholesaler, Inc.
**Address:** 2008 Altom Court, St. Louis, MO 63146-4151
**Product Name:** Tri-Pow’r HD
**Synonyms:** Coil Cleaner

**Tel No:** (314) 469-7000, (800) 554-5499
**CHEMTREC:** (800) 424-9300
**Product Number:** 4371-88

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>6834-92-0</td>
<td>&lt;5%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

VOC Content: 0.10% By Wt.
All ingredients are TSCA listed.

III - PHYSICAL DATA

- **Vapor Pressure:** N/A
- **Evaporation Rate:** N/A
- **Solubility in H₂O:** complete
- **Freezing Point °F:** 32°F
- **Boiling Point °F:** 212°F
- **Specific Gravity H₂O=1 @25° C:** 1.05
- **Vapor Density (Air=1) 60-90° F:** N/A
- **VOC Content (% by wt.): @ 105 ° C=90-91%**
- **pH @ 1.0 Solution:** 10.5
- **pH as Distributed:** 13
- **Appearance:** Clear, amber liquid
- **Odor:** Pleasant chemical fragrance

IV - FIRE AND EXPLOSION

- **Flash Point F:** None to boiling
- **Flammable Limits:** N/A
- **Extinguishing Media:** Suitable for surrounding area - water, dry chemical, foam CO₂.
- **Special Fire Fighting Procedures:** N/A
- **Unusual Fire and Explosion Hazards:** N/A

V - REACTIVITY DATA

- **Stability - Conditions to avoid:** Stable - None
- **Incompatibility:** None known
- **Hazardous Decomposition Products:** Forced ignition of dried residues may produce CO, CO₂, nitrogen oxides.
- **Conditions Contributing to Hazardous Polymerizations:** Will not occur

VI - HEALTH HAZARD DATA

**EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),**

A. **ACUTE (Primary Route of Exposure):** EYES: Detergent in the product is irritating to the eyes. SKIN: Product is not a primary skin irritant by FHSA. Prolonged and repeated contact may cause irritation as indicated by pH in product. INHALATION: Mists or spray can irritate nasal passages. INGESTION: Acute oral LD50 (rats) >5000 mg/kg. Ingestion of large quantities causes upset to the stomach.

B. **SUBCHRONIC, CHRONIC, OTHER:** No available information was found

C. **MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:**
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove source of irritation
EYES: Flush eyes with flowing water for 15 minutes, call a physician.
SKIN: Rinse affected area thoroughly with flowing water.
INGESTION: Give large quantities of water or milk followed by vinegar or lemon juice and immediately contact a physician.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Small spills may be mopped up and residues flushed to the sewer with water. Rinse mop before storing. May be neutralized with dilute acetic acid.
Waste Disposal Methods: Dispose spent solutions in accordance with local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing mists or spray.
Eye Protection: Goggles or face shield Gloves: For manual cleaning
Other Clothing and Equipment: Not normally required
Ventilation: Normal room ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: This product will withstand an occasional accidental freezing without loss in its normal performance characteristics. It must be thoroughly thawed and agitated (roll drum) before being used. Store in heated area below 135°F.
Additional Information: Read and observe labeled use instructions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ............: 1</td>
<td>Health Hazard ............: 1</td>
</tr>
<tr>
<td>Fire Hazard ..............: 0</td>
<td>Fire Hazard ..............: 0</td>
</tr>
<tr>
<td>Reactivity ...............: 0</td>
<td>Reactivity ...............: 0</td>
</tr>
<tr>
<td>Specific Hazard ..........:</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Ty-Ion B11

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Ty-Ion B11
Synonyms: Oxygen Scavenger

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 7511

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Bisulfite</td>
<td>7681-57-4</td>
<td>&lt;35</td>
<td>NE</td>
<td>NE</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: N/A
- Evaporation Rate: (ether=1): N/A
- Solubility in H₂O: Complete
- Freezing Point °F: ~30°F
- Boiling Point °F: >212°F
- Specific Gravity H₂O=1 @25° C: 1.16
- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.): 8+% @ 105C/1 hr.
- pH @ Solution: N/A
- pH as Distributed: 4.4
- Appearance: Clear pink liquid
- Odor: Sulfur odor

IV - FIRE AND EXPLOSION

- Flash Point F: Not flammable Flammable Limits: N/A
- Extinguishing Media: Product is non flammable. Use appropriate extinguishing media for surrounding fire.
- Special Fire Fighting Procedures: Use NIOSH - approved self - contained breathing apparatus. Use water spray to keep containers cool and to knock down flames.
- Unusual Fire and Explosion Hazards: At decomposition temperatures, oxides of sulfur release.

V - REACTIVITY DATA

- Stability - Conditions to avoid: None known.
- Incompatibility: Strong oxidizers, strong acids or alkaline materials.
- Hazardous Decomposition Products: Oxides of sulfur when heated to decomposition.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure):
   - EYES: Irritating to eyes. SKIN: May cause skin irritation. INHALATION: Inhalation of product mist may irritate respiratory tract. INGESTION: Harmful if swallowed. Will cause upset to stomach.

B. SUBCHRONIC, CHRONIC, OTHER:
   - Sensitive persons may experience respiratory allergic reactions.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air. If not breathing, give artificial respiration. Get medical attention.
EYES: Immediately flush with plenty of water for at least 15 minutes. Get medical attention.
SKIN: Wash with soap and water. Remove contaminated clothing and footwear and wash before reuse. Get medical attention if irritation occurs or persists.
INGESTION: Give 1 - 2 glasses of water or milk to dilute. Get medical aid immediately.
**VIII - SPILL OR LEAK PROCEDURE**

**Spill Management:** Mop up spilled material. Flush residues to drain with water.

**Waste Disposal Methods:** Carefully neutralize with dilute bleach and flush to sewer in accordance with local, state and federal regulations.

**IX - PROTECTION INFORMATION/CONTROL MEASURES**

**Respiratory:** Not required

**Eye Protection:** Safety glasses

**Gloves:** Rubber gloves

**Other Clothing and Equipment:** Not required.

**Ventilation:** Mechanical exhaust is recommended.

**X - SPECIAL PRECAUTIONS**

**Precautions to be taken in Handling and Storing:** Wash thoroughly after handling. Keep container closed. If frozen, thaw and remix before use.

**Additional Information:** Read and observe all labeled precautions.

---

**NFPA**

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

**Specific Hazard**

---

**HMIS RATING**

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

**Personal Protection**

---

**Revision Date:** 8/6/2004

---

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Ty-Ion B14A
Synonyms: Aqueous Boiler Water Treatment

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Hydroxide (ORAL LD50 140-340 mg/kg)</td>
<td>1310-73-2</td>
<td>@5</td>
<td>2mg/m3 (ceiling)</td>
<td>2mg/m3 (ceiling)</td>
</tr>
<tr>
<td>Sodium Nitrite (ORAL LD50 85 mg/kg rats)</td>
<td>7632-00-0</td>
<td>@25</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sodium Tetraborate, Pentahydrate (ORAL LD50 709 mg/kg man) All ingredients are TSCA listed.</td>
<td>12179-04-3</td>
<td>@3</td>
<td>1mg/m3</td>
<td>10mg/m3</td>
</tr>
</tbody>
</table>

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: N/A
- Evaporation Rate: (ether=1): N/A
- Solubility in H₂O: Appreciable
- Freezing Point °F: -20°F
- Boiling Point °F: @14.7 psig @212°C
- Specific Gravity H₂O=1 @25°C: 1.27

IV - FIRE AND EXPLOSION

- Flash Point F: None to boil
- Flammable Limits: N/A
- Extinguishing Media: Water, CO₂, foam, dry chemical.
- Special Fire Fighting Procedures: N/A
- Unusual Fire and Explosion Hazards: Forced ignition will release nitrogen oxides.

V - REACTIVITY DATA

- Stability - Conditions to avoid: Sodium nitrite is a strong oxidizing agent. Dried residues may be explosive.
- Incompatibility: Acidic solutions, cyanides, reducing materials, strong oxidizers, amines.
- Hazardous Decomposition Products: Nitrogen oxides.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure): EYES & SKIN: Concentrate corrosive to tissues. Eye and skin irritant.
   INHALATION: Avoid inhaling concentrated fumes for a prolonged period. Fumes are irritating.
   INGESTION: Harmful if swallowed. Sodium nitrite poisoning is characterized by lack of blood pressure and cyanosis.

B. SUBCHRONIC, CHRONIC, OTHER: Sodium hydroxide shows chronic effects of skin destruction or inflammation and irritation to respiratory tract.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

**INHALATION:** If breathing is difficult, remove to fresh air and immediately call a physician.

**EYES:** Flush eyes with flowing water for 15 minutes. Contact physician.

**SKIN:** Wash thoroughly with water. Shower if necessary. Launder contaminated clothing before reuse.

**INGESTION:** Drink large amounts of water or citrus juice and immediately contact a physician.

VIII - SPILL OR LEAK PROCEDURE

**Spill Management:** For small spills, use industrial absorbent and incinerate or bury. Wash residue with large amounts of water.

**Waste Disposal Methods:** Use chemical scavenger service. Rinse thoroughly and tender metal drums to reconditioner. Remove labels.

IX - PROTECTION INFORMATION/CONTROL MEASURES

**Respiratory:** N/A

**Eye Protection:** Goggles or face shield

**Gloves:** Rubber gloves

**Other Clothing and Equipment:** N/A

**Ventilation:** Mechanical exhaust is adequate.

X - SPECIAL PRECAUTIONS

**Precautions to be taken in Handling and Storing:** Keep container closed when not in use. Keep from freezing. Ruined by freezing. For industrial use only.

**Additional Information:** Read and observe labeled use instructions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health Hazard</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Fire Hazard</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Reactivity</strong></td>
<td>0</td>
</tr>
<tr>
<td><strong>Specific Hazard</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Personal Protection...:** X (Sec. 9)

**Revision Date:** 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Ty-Ion B17A
Synonyms: Boiler Water Treatment

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 7509

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diethylamineoethanol</td>
<td>100-37-8</td>
<td>&lt;30</td>
<td>10ppm (skin)</td>
<td>10ppm (skin)</td>
</tr>
<tr>
<td>Morpholine*</td>
<td>110-91-8</td>
<td>&lt;30</td>
<td>20ppm (skin)</td>
<td>20ppm (skin)</td>
</tr>
</tbody>
</table>

*STEL=30ppm
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: Complete
Freezing Point °F: 5°F
Boiling Point °F: N/A
Specific Gravity H₂O=1 @25° C: 1.01
Vapor Density (Air=1) 60-90° F: N/A
VOC Content (% by wt.): 99%
pH @ Solution: N/A
pH as Distributed: 12.2
Appearance: Straw liquid
Odor: Amine odor

IV - FIRE AND EXPLOSION

Flash Point F: 152°F Flammable Limits: N/A
Extinguishing Media: CO₂, dry chemical.
Special Fire Fighting Procedures: N/A
Unusual Fire and Explosion Hazards: N/A

V - REACTIVITY DATA

Stability - Conditions to avoid: N/A
Incompatibility: None known.
Hazardous Decomposition Products: Heat will release amines.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Product is an eye irritant. SKIN: Product is a skin irritant.
INHALATION: Vapors are irritating. INGESTION: Harmful if swallowed. Will cause upset to gastrointestinal tract.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Liquid vapors are irritating to mucous membranes. Remove to fresh air. If breathing is difficult, consult a physician immediately.
EYES: Flush eyes with flowing water for 15 minutes, contact physician.
SKIN: Wash thoroughly with soap and water. Remove and wash contaminated clothing before reuse.
INGESTION: Treat as strong alkali. DO Not induce vomiting. Drink large quantities of milk, egg whites, gelatin solution or water. Contact a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Collect with absorbent. Then bury/burn. Flush residue to sewer with large amounts of water. Neutralize with dilute acetic acid.
Waste Disposal Methods: Dispose through authorized chemical scavenger service. Rinse drums thoroughly and tender to drum reconditioner.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Respirator suitable for organic amines.
Eye Protection: Safety glasses or goggles. Gloves: Rubber gloves
Other Clothing and Equipment: N/A
Ventilation: Mechanical ventilation is adequate.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Keep from freezing. Keep container closed when not in use. Store away from heat or open flame. For industrial use only.
Additional Information: Read and observe labeled use instructions.

NFPA
Health Hazard ............: 1
Fire Hazard...............: 0
Reactivity .................: 0
Specific Hazard ..........:

HMIS RATING
Health Hazard.........: 1
Fire Hazard ............: 0
Reactivity ..............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Ty-Ion B20  
Synonyms: Aqueous Closed - Loop Water Treatment

Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 7537

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Nitrite (ORAL LD50 Rat 85 mg/kg)</td>
<td>7632-00-0</td>
<td>&lt;15</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Sodium Tetraborate, Pentahydrate (ORAL LD50 Rat 709 mg/kg)</td>
<td>12179-04-3</td>
<td>&lt;15</td>
<td>1mg/m3</td>
<td>10mg/m3</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: N/A
- Evaporation Rate: (ether=1): N/A
- Solubility in H₂O: Complete
- Freezing Point °F: Circa 0°F
- Boiling Point °F: @14.7 psig @220°
- Specific Gravity H₂O=1 @25° C: 1.23
- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.): @105C/2hrs. 70%
- pH @ 1% Solution: 10.7
- pH as Distributed: 12
- Appearance: Red liquid
- Odor: No distinct odor

IV - FIRE AND EXPLOSION

- Flash Point F: None to boil
- Flammable Limits: N/A
- Extinguishing Media: Water, CO₂, foam, dry chemical.
- Special Fire Fighting Procedures: N/A
- Unusual Fire and Explosion Hazards: N/A

V - REACTIVITY DATA

- Stability - Conditions to avoid: Sodium nitrite is a strong oxidizing agent. Dried residues may be explosive.
- Incompatibility: Acidic solutions, cyanides, reducing materials, strong oxidizers, amines.
- Hazardous Decomposition Products: Nitrogen oxides.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),

A. ACUTE (Primary Route of Exposure): EYES & SKIN: Product is an eye irritant and may be irritating to the skin. INHALATION: Avoid concentrated fumes/mists. May be irritating. INGESTION: Harmful if swallowed. Sodium nitrite poisoning is characterized by lack of blood pressure and cyanosis.

B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air and contact a physician.
EYES: Flush with water for 15 minutes and get medical attention.
SKIN: Wash thoroughly with water; remove contaminated clothing and launder before reuse. Call a physician if irritation persists.
INGESTION: Induce vomiting using a mild emetic. After vomiting occurs, provide as much milk to drink as can be tolerated and call a physician.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Collect with absorbent and bury or burn. Flush residue to sewer with plenty of water.
Waste Disposal Methods: In case of large spill, dispose of through authorized scavenger service. Triple rinse plastic and metal drums thoroughly, remove labels and tender to drum reconditioner or dispose of in accordance with local regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: N/A
Eye Protection: Goggles and face shield
Gloves: Rubber gloves
Other Clothing and Equipment: Chemical apron.
Ventilation: Adequate local ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: For industrial use only. Protect from physical damage. This product is ruined by freezing. Store in heated area.
Additional Information: Read and observe labeled use instructions.

NFPA
Health Hazard ...........: 1
Fire Hazard ............: 0
Reactivity ..............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ..........: 1
Fire Hazard ............: 0
Reactivity ..............: 0
Personal Protection ....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet  
Ty-Ion C70

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Ty-Ion C70  
Synonyms: Phosphonate/polymer cooling tower treatment

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethylene glycol</td>
<td>107-21-1</td>
<td>10</td>
<td>50ppm (ceiling)</td>
<td>50ppm (ceiling)</td>
</tr>
<tr>
<td>Potassium hydroxide</td>
<td>1310-58-3</td>
<td>&lt;0.5</td>
<td>2mg/m3 (ceiling)</td>
<td>2mg/m3 (ceiling)</td>
</tr>
</tbody>
</table>

# Ingredient subject to reporting under Section 313 of Title III (SARA) and 40 CFR 372.
Product is non-toxic per Oral LD50 and inhalation LC50 criteria as published by NIOSH
All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure: mm Hg:</td>
<td>Like water</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Like H₂O</td>
</tr>
<tr>
<td>Solubility in H₂O:</td>
<td>Complete</td>
</tr>
<tr>
<td>Freezing Point °F:</td>
<td>~20°F</td>
</tr>
<tr>
<td>Boiling Point °F:</td>
<td>~212°F</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25°C:</td>
<td>1.15</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point F:</td>
<td>None to boil TCC Flammable Limits: N/A</td>
</tr>
<tr>
<td>Extinguishing Media:</td>
<td>Use media suitable for source of fire.</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures:</td>
<td>Use of a self-contained breathing apparatus is recommended.</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazards:</td>
<td>None known.</td>
</tr>
</tbody>
</table>

V - REACTIVITY DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability - Conditions to avoid:</td>
<td>Stable</td>
</tr>
<tr>
<td>Incompatibility:</td>
<td>Strong acids.</td>
</tr>
<tr>
<td>Hazardous Decomposition Products:</td>
<td>Forced ignition of dried residues may produce CO, CO₂, oxides of nitrogen and phosphenes.</td>
</tr>
<tr>
<td>Conditions Contributing to Hazardous Polymerizations:</td>
<td>Will not polymerize.</td>
</tr>
</tbody>
</table>

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Concentrate corrosive to tissues. Eye and skin irritant.
INHALATION: Ethylene glycol fumes may cause dizziness. INGESTION: Harmful if swallowed. Excessive exposure may cause kidney and liver effects.
B. SUBCHRONIC, CHRONIC, OTHER: Ethylene glycol has caused birth defects in laboratory animals.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
**VII - EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** Remove to fresh air and contact a physician.

**EYES:** Flush with water for 15 minutes and get medical attention.

**SKIN:** Flush with water for 15 minutes, removing contaminated clothing. If irritation persists, contact a physician.

**INGESTION:** Induce vomiting using a mild emetic. Call a physician immediately.

**VIII - SPILL OR LEAK PROCEDURE**

**Spill Management:** Contain spills and leaks to prevent discharge to the environment. Take up on absorbent material.

**Waste Disposal Methods:** Keep concentrated product out of storm sewers, water sheds and water systems. Discharge to sanitary sewer in accordance with all applicable local, state and federal regulations. In case of large spill, dispose of through authorized scavenger service. Triple rinse the plastic containers thoroughly, remove labels and tender to reconditioner or dispose of in accordance with local regulations.

**IX - PROTECTION INFORMATION/CONTROL MEASURES**

**Respiratory:** Not required under normal conditions of use

**Eye Protection:** Chemical splash goggles

**Gloves:** Rubber gloves

**Other Clothing and Equipment:** Protective apron where potential for splashing exists.

**Ventilation:** Normal.

**X - SPECIAL PRECAUTIONS**

**Precautions to be taken in Handling and Storing:** Product will withstand occasional freezing. If frozen, thaw to room temperature and mix thoroughly (roll drum). For industrial and institutional use only.

**Additional Information:** Read and observe all label instructions.

**NFPA**

| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |
| Specific Hazard | |

**HMIS RATING**

| Health Hazard | 1 |
| Fire Hazard | 0 |
| Reactivity | 0 |
| Personal Protection | X (Sec. 9) |

**Revision Date:** 8/6/2004

Seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions. While Seller believes that the information contained herein is accurate, such information is offered solely for its customers' consideration and verification under their specific use conditions.
Material Safety Data Sheet
Ty-lon B-85

I - PRODUCT IDENTIFICATION
Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Alton Court, St. Louis, MO 63146-4151
Product Name: Ty-lon B-85
Synonyms: Boiler Water Treatment

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>6</td>
<td>2mg/m3</td>
<td>2mg/m3</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: Complete
Freezing Point °F: May Sep.blw. 45°F
Boiling Point °F: @14.7 psig psig 220°
Specific Gravity H₂O=1 @25° C: 1.20

IV - FIRE AND EXPLOSION

Flash Point F: None to boil Flammable Limits: N/A
Extinguishing Media: Suitable for fire-water, CO₂, foam, dry chemical.
Special Fire Fighting Procedures: N/A
Unusual Fire and Explosion Hazards: Combustion may result in generation of sulfur oxides.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable.
Incompatibility: Acidic solutions and oxidizing materials.
Hazardous Decomposition Products: CO₂ and sulfur oxides.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES & SKIN: Corrosive to tissues. Will cause burns. INHALATION: Mists are irritating to nasal and throat passages. INGESTION: Harmful if swallowed. Can burn mouth, throat and stomach.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove source of irritation and treat as for ingestion.
EYES: Flood with plenty of water for 15 minutes, get prompt medical attention.
SKIN: Flood with water, then wash with vinegar.
INGESTION: Drink large quantities of water or milk. Follow with citrus fruit juice. DO NOT INDUCE VOMITING, unless so directed by medical personnel.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Use industrial absorbent and incinerate or dispose with chemicals scavenger service. Flush residues to drain with water. May be neutralized with dilute acetic acid.
Waste Disposal Methods: As above. In case of large spill, dispose through authorized scavenger service.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: N/A
Eye Protection: Safety glasses or goggles Gloves: Rubber gloves
Other Clothing and Equipment: Chemical apron.
Ventilation: Local exhaust is adequate.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Keep container closed when not in use and protect from physical damage. Protect from freezing. This product is RUINED BY FREEZING. Store between 45°F and 120°F. Vent container carefully before opening. For industrial use only.
Additional Information: Read and observe labeled use instructions.

NFPA
Health Hazard ............: 2
Fire Hazard...............: 0
Reactivity .................: 0
Specific Hazard ..........:

HMIS RATING
Health Hazard.............: 2
Fire Hazard................: 0
Reactivity..................: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  Tel No: (314) 469-7000, (800) 554-5499
Address: 2008 Altom Court, St. Louis, MO 63146-4151 CHEMTREC: (800) 424-9300
Product Name: UrinaKleen Product Number: 4590
Synonyms: Acid-based pipe and bowl Cleaner

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrochloric Acid</td>
<td>7647-01-0</td>
<td>20</td>
<td>5 ppm</td>
<td></td>
</tr>
<tr>
<td>VOC's = 0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: (mm Hg) 40
Evaporation Rate: N/A
Solubility in H₂O: Complete
Freezing Point °F: N/A
Boiling Point °F: 200°F
Specific Gravity H₂O=1 @25° C:

Vapor Density (Air=1) 60-90° F:
VOC Content (% by wt.): N/A
pH @ Solution:
pH as Distributed: <1
Appearance: Blue liquid
Odor: Acid

IV - FIRE AND EXPLOSION

Flash Point F: No flash to boiling Flammable Limits: N/A
Extinguishing Media: Product not flammable
Special Fire Fighting Procedures: Strong alkalis, materials not resistant to strong acids, active metals (zinc, aluminum, magnesium, etc.). Avoid skin and eye contact, and breathing of acid vapors. Wear head and body protection and HCl respirator if exposure to liquid is likely
Unusual Fire and Explosion Hazards: This product can react with metals to release hydrogen gas. Firemen may need to protect against this.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: Strong alkalis, materials not resistant to strong acids, active metals (zinc, aluminum, magnesium, etc.).
Hazardous Decomposition Products: Hydrogen chloride vapors. Contact with active metals can release flammable gas.
Conditions Contributing to Hazardous Polymerizations: Does not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Corrosive. Causes eye damage. SKIN: Corrosive to tissues. Causes irritation and burns. INGESTION: Harmful if swallowed. Burns to mouth, throat, esophagus and stomach are likely. INHALATION: Breathing of vapor can cause respiratory irritation and inflammation. Breathing of mists or liquid may cause coughing and burning.
B. SUBCHRONIC, CHRONIC, OTHER:
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE: Over exposure to product has the following effects: inhalation of vapors may cause pulmonary edema, collapse of circulatory system and damage to the upper respiratory system and collapse. Inhalation may cause coughing, throat burning, choking, bronchitis, and difficult breathing. Ingestion is harmful and may be fatal. Ingestion may cause burns.
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. Give artificial respiration or oxygen if needed, and contact a physician.
SKIN: In case of contact, immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, get medical attention. Wash clothing before reuse.
INGESTION: If swallowed, DO NOT induce vomiting. Give large quantities of water or milk. Call a physician immediately.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Small spills can be flushed into normal drainage or into ground with copious amounts of water, or taken up with absorbent material. For large spills, dike area and contain as much spilled material as possible, absorbing with soda ash or sodium bicarbonate. Flush with water or absorb for collection and proper disposal. Personnel should use skin, eye and respiratory protection
Waste Disposal Methods: If neutralized, may be disposed in sewers if local regulations permit. Otherwise, send to licensed treatment and disposal facility. As supplied, this product is a RCRA hazardous waste.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Wear approved HCl vapor/mist
Eye Protection: Full face shield or goggles. Gloves: Rubber gloves
Other Clothing and Equipment: Wear acid-resistant protective gloves, boots and clothing. Provide convenient safety showers. Provide convenient eye wash stations.
Ventilation: Use with adequate ventilation.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not get in eyes, on skin or clothing. Avoid breathing vapor or mist. Keep container closed. Wash thoroughly after handling. Keep from contact with chlorine bleaches. Check containers daily for leaks. Have water hoses and alkaline material (soda ash) convenient. Only use containers and equipment designed for acid service.
Additional Information: Areas of use and storage should be ventilated adequately to reduce vapors below odor level. Empty containers should be rinsed well before handling and disposal.

NFPA
Health Hazard ..........: 3
Fire Hazard .............: 0
Reactivity ...............: 0
Specific Hazard .......:

HMIS RATING
Health Hazard ............: 3
Fire Hazard .............: 0
Reactivity ...............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Vacuum Pump Oil

I - PRODUCT IDENTIFICATION
Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Vacuum Pump Oil
Synonyms: Refined Petroleum Oil

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blended Hydrocarbon petroleum distillate, solvent, dewaxed, heavy, severely refined paraffinic oil</td>
<td>64742-65-0</td>
<td>100%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Constituents of product are TSCA listed. VOC = 1.96% or 0.142 lbs/gallon
All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: <0.0001
- Evaporation Rate: (ether=1): N/A
- Solubility in H₂O: Miscible
- Freezing Point °F: N/A
- Boiling Point °F: >212°
- Specific Gravity H₂O=1 @25° C: 0.87
- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.): N/A
- pH @ Solution: N/A
- pH as Distributed: N/A
- Appearance: Clear light amber liquid
- Odor: Mild petroleum odor

IV - FIRE AND EXPLOSION

- Flash Point F: >200°F Flammable Limits: N/A
- Extinguishing Media: Water spray, foam, dry chemical, CO₂.
- Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.
- Unusual Fire and Explosion Hazards: None.

V - REACTIVITY DATA

- Stability - Conditions to avoid: None known.
- Incompatibility: Strong oxidizers.
- Hazardous Decomposition Products: Exposure to high temperatures can produce carbon monoxide.
- Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYE & SKIN: On the basis of animal testing, we would not expect product to be an eye or skin irritant. INGESTION: Results from acute toxicity testing show that product would not be considered toxic as defined by the Consumer Product Safety Commission.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A. Good First Aid should be followed in all cases of exposure.
EYES: In case of eye contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.
SKIN: N/A
INGESTION: N/A

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Dispose of in accordance with federal, state and local regulations. Dike area, contain as much spilled material as possible. Remove any remaining material by absorbing on vermiculite or other suitable material and place in sealed metal container for disposal.
Waste Disposal Methods: Mix with flammable solvent and incinerate in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Not required
Eye Protection: Not required Gloves: Not required
Other Clothing and Equipment: Not required.
Ventilation: Local exhaust is recommended.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wash thoroughly after handling. Keep container closed. Exercise caution in the storage and handling of all chemical substances.
Additional Information: Read and observe all label precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ...............: 0</td>
<td>Health Hazard .............: 0</td>
</tr>
<tr>
<td>Fire Hazard...................: 1</td>
<td>Fire Hazard ...............: 1</td>
</tr>
<tr>
<td>Reactivity ...................: 0</td>
<td>Reactivity .................: 0</td>
</tr>
<tr>
<td>Specific Hazard ............:</td>
<td>Personal Protection ....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.  
Address: 2008 Altom Court, St. Louis, MO 63146-4151  
Product Name: Weltone  
Synonyms: Sodium Phosphate - Carbonate Mixture  
Tel No: (314) 469-7000, (800) 554-5499  
CHEMTREC: (800) 424-9300  
Product Number: 4388

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Hypochlorite</td>
<td>7778-54-3</td>
<td>4</td>
<td>10 ppm</td>
<td>N/AV</td>
</tr>
</tbody>
</table>

% Available Chlorine: 2.5-2.7
All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: N/A  
Evaporation Rate: (ether=1): N/A  
Solubility in H₂O: Complete  
Freezing Point °F: N/A  
Boiling Point °F: N/A  
Specific Gravity H₂O=1 @25° C: Unknown  

IV - FIRE AND EXPLOSION

Flash Point F: Non lammable  
Flammable Limits: Non flammable  
Extinguishing Media: In case of fire, use water spray.  
Special Fire Fighting Procedures: Exercise caution when fighting any chemical fire. Respiratory protection is essential.  
Unusual Fire and Explosion Hazards: May ignite combustible and organic materials. When heated to decomposition, product emits toxic fumes.

V - REACTIVITY DATA

Stability - Conditions to avoid: None known.  
Incompatibility: Strong acids, combustible materials.  
Hazardous Decomposition Products: Toxic fumes during heating.  
Conditions Contributing to Hazardous Polymerizations: None known.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),  
A. ACUTE (Primary Route of Exposure): EYES & SKIN: May cause irritation to both eyes and skin. INGESTION: May upset gastrointestinal tract.  
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.  
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:  

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A  
EYES: In case of contact, flush with plenty of water for at least 15 minutes. Call a physician.  
SKIN: In case of contact, flush with plenty of water for at least 15 minutes. If irritation develops, call a physician.  
INGESTION: If swallowed, give milk or raw egg. Call a physician immediately.
VIII - SPILL OR LEAK PROCEDURE

Spill Management: Sweep up spill and wash to sewer.
Waste Disposal Methods: Bury product waste in a sanitary landfill area in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing dust.
Eye Protection: Goggles
Gloves: Rubber gloves
Other Clothing and Equipment: Rubber apron.
Ventilation: Normal.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Avoid contact with eyes, skin and clothing.
Additional Information: Wash thoroughly after handling. Exercise caution in the storing and handling of all chemical substances.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard.........: 1</td>
<td>Health Hazard.........: 1</td>
</tr>
<tr>
<td>Fire Hazard...........: 0</td>
<td>Fire Hazard ...........: 0</td>
</tr>
<tr>
<td>Reactivity ............: 0</td>
<td>Reactivity ........... : 0</td>
</tr>
<tr>
<td>Specific Hazard .......:</td>
<td>Personal Protection...: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Zerol 150 Refrigeration Oil

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Zerol 150 Refrigeration Oil
Synonyms: Refrigeration Fluid

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4310

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Benzene</td>
<td>68855-24-3</td>
<td>100</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients appear on the Inventory of Chemical Substances published by the EPA under authority of the Toxic Substances Control Act (TSCA).
Approx Dielectric Constant: 2.1 (air=1)(non-additized oil)
All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: mm Hg: N/A
- Evaporation Rate: (ether=1): N/A
- Solubility in H₂O: Insoluble
- Freezing Point °F: N/AV
- Boiling Point °F: 315°C
- Specific Gravity H₂O=1 @25° C: 0.87
- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.): N/A
- pH @ N/AV Solution: N/AV
- pH as Distributed: N/AV
- Appearance: Water white liquid
- Odor: Characteristic

IV - FIRE AND EXPLOSION

- Flash Point °F: (COC) 311°F (MIN) Flammable Limits: N/A
- Extinguishing Media: CO₂, dry chemical, foam, water fog.
- Special Fire Fighting Procedures: For fires involving this material, do not enter any closed or confined fire space without proper protection equipment. This may include self-contained breathing apparatus to protect against the hazardous effect of normal products of combustion or oxygen deficiency. Read entire MSDS.
- Unusual Fire and Explosion Hazards: N/AV

V - REACTIVITY DATA

- Stability - Conditions to avoid: Stable
- Incompatibility: May react with strong oxidizing materials.
- Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.
- Conditions Contributing to Hazardous Polymerizations: Will not occur.
VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Applications into the eyes of rabbits produced slight membrane irritation without corneal injury. SKIN: Product may cause skin irritation on prolonged or frequently repeated contact. Application onto the skin of rabbits produced moderate erythema and edema. INGESTION: Not expected to be acutely toxic. (ORAL LD50 Rats >5g/kg). INHALATION: Not acutely toxic.
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:

VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush eyes immediately with fresh water for at least 15 minutes while holding eyelids open. If irritation persists, see a doctor.
SKIN: Wash skin thoroughly with soap and water. See a doctor if rash or burn occurs. Launder contaminated clothing.
INGESTION: If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest emergency treatment center or hospital.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or ground water. Clean up small spills with absorbent material and remove contaminated soil. Report and respond to larger releases.
Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local authorities for approved disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None normally required
Eye Protection: Safety goggles Gloves: Rubber gloves
Other Clothing and Equipment: Wear impervious clothing.
Ventilation: N/AV

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently. CAUTION! Do not use pressure to empty drum or explosion may result.
Additional Information: Read and observe all label precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard</td>
<td>Health Hazard</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>Fire Hazard</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>Reactivity</td>
</tr>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>Personal Protection</td>
</tr>
<tr>
<td>........................</td>
<td>X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Zerol 200TD Refrigeration Oil

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Zerol 200TD Refrigeration Oil
Synonyms: Alkylbenzene Lubricant

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Benzene</td>
<td>68855-24-3</td>
<td>100</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: mm Hg: 0.001
Evaporation Rate: (ether=1): N/A
Solubility in H₂O: Insoluble
Freezing Point °F: N/AV
Boiling Point °F: 319°C
Specific Gravity H₂O=1 @25° C: 0.87

IV - FIRE AND EXPLOSION

Flash Point F: 347°F (COC) 175°C
Flammable Limits: N/A
Extinguishing Media: CO₂, dry chemical, foam, water fog.

Special Fire Fighting Procedures: For fires involving this material, do not enter any closed or confined fire space without proper protection equipment. This may include self-contained breathing apparatus to protect against the hazardous effect of normal products of combustion or oxygen deficiency. Read entire MSDS.

Unusual Fire and Explosion Hazards: N/AV.

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: May react with strong oxidizing materials.
Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.

Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

A. ACUTE (Primary Route of Exposure):

EYES: Applications into the eyes of rabbits produced slight membrane irritation without corneal injury. SKIN: Product may cause skin irritation on prolonged or frequently repeated contact. Application onto the skin of rabbits produced moderate erythema and edema. INGESTION: Not expected to be acutely toxic. (ORAL LD50 Rats >5g/kg). INHALATION: Not acutely toxic.

B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.

C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush eyes immediately with fresh water for at least 15 minutes while holding eyelids open. If irritation persists, see a doctor.
SKIN: Wash skin thoroughly with soap and water. See a doctor if rash or burn occurs. Launder contaminated clothing.
INGESTION: If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest emergency treatment center or hospital.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or ground water. Clean up small spills with absorbent material and remove contaminated soil. Report and respond to larger releases.
Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local authorities for approved disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing mist or vapor. Use NIOSH/MSHA approved respiratory equipment when airborne exposure is excessive.
Eye Protection: Safety glasses Gloves: Disposable
Other Clothing and Equipment: Wear impervious clothing.
Ventilation: Mechanical ventilation is recommended if handling at elevated temperatures or if handled in such a manner as to cause mists or vapor to form.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently. CAUTION! Do not use pressure to empty drum or explosion may result.
Additional Information: Read and observe all label precautions.

NFPA
Health Hazard ..........: 0
Fire Hazard ............: 1
Reactivity .............: 0
Specific Hazard ........: 0

HMIS RATING
Health Hazard ..........: 0
Fire Hazard ............: 1
Reactivity .............: 0
Personal Protection.... : X (Sec. 9)

Revision Date: 8/6/2004

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I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Zerol 300
Synonyms: Refrigeration Fluid

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Benzene</td>
<td>688-55-24-3</td>
<td>100</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Physical Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate (ether=1)</td>
<td>N/A</td>
</tr>
<tr>
<td>Solubility in H₂O</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Freezing Point °F</td>
<td>N/AV</td>
</tr>
<tr>
<td>Boiling Point °F</td>
<td>315°C</td>
</tr>
<tr>
<td>Specific Gravity H₂O=1 @25° C</td>
<td>0.87</td>
</tr>
</tbody>
</table>

IV - FIRE AND EXPLOSION

Flash Point °F: (COC) 311°F (MIN)
Flammable Limits: N/A
Extinguishing Media: CO₂, dry chemical, foam, water fog.
Special Fire Fighting Procedures: For fires involving this material, do not enter any closed or confined fire space without proper protection equipment. This may include self-contained breathing apparatus to protect against the hazardous effect of normal products of combustion or oxygen deficiency. Read entire MSDS.
Unusual Fire and Explosion Hazards: N/AV

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: May react with strong oxidizing materials.
Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor; incomplete combustion can produce carbon monoxide.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Expected to cause no more than minor eye irritation. Application of similar material into the eyes of rabbits produced slight membrane irritation without corneal injury. SKIN: Not a primary skin irritant, but may cause skin irritation on prolonged or frequently repeated contact. Application of a similar material onto the skin of rabbits produced slight erythema and edema. INHALATION: Avoid breathing mist or vapor. Prolonged exposure to vapors may cause dizziness and headache. Under normal use conditions, product is not an inhalation hazard INGESTION: May cause nausea. Not expected to be acutely toxic by ingestion..
B. SUBCHRONIC, CHRONIC, OTHER: No available information was found.
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: N/A
EYES: Flush eyes immediately with fresh water for at least 15 minutes while holding eyelids open. If irritation persists, see a doctor.
SKIN: Wash skin thoroughly with soap and water. See a doctor if irritation persist. Launder contaminated clothing.
INGESTION: If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest emergency treatment center or hospital.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or ground water. Clean up small spills using appropriate techniques with absorbent material. Remove contaminated soil and report and respond to larger releases.
Waste Disposal Methods: Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local authorities for approved disposal.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: None normally required
Eye Protection: Safety goggles
Gloves: Rubber gloves
Other Clothing and Equipment: Impervious protective clothing.
Ventilation: Ventilation may be needed.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently. CAUTION! Do not use pressure to empty drum or explosion may result.
Additional Information: Read and observe all label precautions.

NFPA
Health Hazard ...........: 0
Fire Hazard...............: 1
Reactivity ...............: 0
Specific Hazard ........: 

HMIS RATING
Health Hazard ...........: 0
Fire Hazard .............: 1
Reactivity ..............: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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Material Safety Data Sheet
Zerol 500

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Zerol 500
Synonyms: Alkylbenzene Lubricant

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl Benzene (heavy alkylate)</td>
<td>688-55-24-3</td>
<td>100</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

All ingredients are TSCA listed.

III - PHYSICAL DATA

- Vapor Pressure: 0.001 mmHg @ 40°C
- Evaporation Rate: N/A
- Solubility in H₂O: Insoluble in water
- Freezing Point °F: N/A
- Boiling Point °F: 326°C
- Specific Gravity H₂O=1 @25° C: 0.87

- Vapor Density (Air=1) 60-90° F: N/A
- VOC Content (% by wt.): N/A
- pH @ Solution: N/A
- pH as Distributed: 7.0-8.0
- Appearance: Water white to light amber liquid
- Odor: Slight hydrocarbon odor

IV - FIRE AND EXPLOSION

- Flash Point F: 17°C Flammable Limits: LEL=Unk UEL=Unk
- Extinguishing Media: CO₂, dry chemical, foam, water fog
- Special Fire Fighting Procedures: Cool exposed equipment with water spray. For fires involving this material, do not enter any closed or confined fire space without proper protection equipment. This may include self-contained breathing apparatus to protect against the hazardous effect of normal products of combustion or oxygen deficiency.
- Unusual Fire and Explosion Hazards: N/A

V - REACTIVITY DATA

- Stability - Conditions to avoid: Product is stable
- Incompatibility: May react with strong oxidizing materials
- Hazardous Decomposition Products: Normal combustion forms CO₂ and water vapor. Incomplete combustion can form CO.
- Conditions Contributing to Hazardous Polymerizations: Will not occur

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Expected to cause no more than minor eye irritation. Application of similar material into the eyes of rabbits produced slight membrane irritation without corneal injury. Avoid eye contact as good industrial practice SKIN: Not a primary skin irritant, but may cause skin irritation on prolonged or frequently repeated contact. Application of a similar material onto the skin of rabbits produced slight erythema and edema. The Draize score was 0.6. Not expected to be acutely toxic to skin by skin absorption. The acute dermal LD50 (rabbits) was greater than 5g/Kg for a similar product. INHALATION: Avoid breathing vapor or mist. Under normal use condition, this product is not an inhalation hazard. Prolonged exposure to vapors may cause dizziness and headaches. INGESTION May cause nausea. Not expected to be acutely toxic by ingestion. The acute oral LD50 (rat) was greater than 5g/kg for a similar product.
B. SUBCHRONIC, CHRONIC, OTHER: None
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration and seek medical attention immediately.
EYES: Flush eyes immediately with fresh water for at least 15 minutes while holding eyelids open. If irritation persists, see a doctor.
SKIN: Wash skin thoroughly with soap and water. See a doctor if irritation persists. Launder contaminated clothing.
INGESTION: If swallowed, give water or milk to drink and telephone for medical advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest emergency treatment center or hospital.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or ground water. Clean up small spills using appropriate techniques with absorbent material. Remove contaminated soil and report and respond to larger releases.
Waste Disposal Methods: Discarded product should be incinerated or disposed of only in accordance with local, state and federal regulations.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Avoid breathing mist or vapor. Use NIOSH/MSHA approved respiratory equipment when airborne exposure is excessive.
Eye Protection: Safety glasses
Gloves: Rubber gloves
Other Clothing and Equipment: Impervious protective clothing.
Ventilation: Mechanical ventilation is recommended if handling at elevated temperatures or if it is handled in such a manner as to cause mists or vapor to form.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Do not weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently. CAUTION! Do not use pressure to empty drum or explosion may result.
Additional Information: Read and observe all label precautions.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS RATING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Hazard ..........: 0</td>
<td>Health Hazard ..........: 0</td>
</tr>
<tr>
<td>Fire Hazard ............: 1</td>
<td>Fire Hazard ............: 1</td>
</tr>
<tr>
<td>Reactivity ..............: 0</td>
<td>Reactivity ..............: 0</td>
</tr>
<tr>
<td>Specific Hazard ........: 0</td>
<td>Personal Protection....: X (Sec. 9)</td>
</tr>
</tbody>
</table>

Revision Date: 8/6/2004

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Material Safety Data Sheet
Zerol Ice

I - PRODUCT IDENTIFICATION

Company Name: Nu-Calgon Wholesaler, Inc.
Address: 2008 Altom Court, St. Louis, MO 63146-4151
Product Name: Zerol Ice

Tel No: (314) 469-7000, (800) 554-5499
CHEMTREC: (800) 424-9300
Product Number: 4312-50

II - HAZARDOUS INGREDIENTS OF MIXTURES

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS#</th>
<th>% By Wt</th>
<th>TLV</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lubricant</td>
<td></td>
<td>55-75</td>
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<td></td>
</tr>
<tr>
<td>Propellant, 1-chloro, 2,3-fluoro</td>
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<td>25-45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>methane</td>
<td></td>
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</tr>
</tbody>
</table>

Composition/specific chemical identities are withheld as a trade secret under the provisions of OSHA Hazard Communication Standard 29 CFR 1910.1200. All ingredients are TSCA listed.

III - PHYSICAL DATA

Vapor Pressure: Not determined
Evaporation Rate: Not determined
Solubility in H₂O: Negligible
Freezing Point °F: Not determined
Boiling Point °F: 300°C at atmospheric pressure
Specific Gravity H₂O=1 @25° C: 1.05
Vapor Density (Air=1) 60-90° F: Not determined
VOC Content (% by wt.): Not determined
pH @ Solution: Not applicable
pH as Distributed: Not determined
Appearance: Clear liquid lubricant
Odor: Oil odor

IV - FIRE AND EXPLOSION

Flash Point °F: >200°C; (COC) Flammable Limits: Not determined
Extinguishing Media: Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause foaming.
Special Fire Fighting Procedures: Wear full protective clothing and positive pressure breathing apparatus.
Unusual Fire and Explosion Hazards: None

V - REACTIVITY DATA

Stability - Conditions to avoid: Stable
Incompatibility: May react with strong oxidizing materials
Hazardous Decomposition Products: Normal combustion forms carbon dioxide and water vapor. Incomplete combustion can form carbon monoxide.
Conditions Contributing to Hazardous Polymerizations: Will not occur.

VI - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE (Medical Conditions Aggravated/Target Organ Effects),
A. ACUTE (Primary Route of Exposure): EYES: Expected to cause no more than minor eye irritation. Application of a similar product into the eyes of rabbits produced very slight membrane irritation without corneal injury. Avoid eye contact as good industrial practice. SKIN: Not a primary skin irritant but may cause skin irritation on repeated or prolonged contact. Application of a similar onto the skin of rabbits produced slight erythema and edema.
INHALATION: Avoid breathing vapor or mist. Under normal use conditions, this product is not an inhalation hazard. Prolonged exposure to vapors may cause dizziness and headaches.
INGESTION: May cause nausea. Not expected to be acutely toxic by ingestion.
B. SUBCHRONIC, CHRONIC, OTHER:
C. MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
VII - EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration and seek medical attention immediately. Remove material from eyes, skin and clothing.

EYES: Immediately flush eyes with plenty of water for at least 15 minutes while holding the eyelids open. If irritation persists, see a physician.

SKIN: Remove contaminated clothing. Wash skin thoroughly with soap and water. Launder contaminated clothing. See a doctor if irritation persists.

INGESTION: If swallowed, call a physician immediately. ONLY induce vomiting at the direction of a physician. Never give anything by mouth to an unconscious person. If medical advice cannot be obtained, take the person, product container and MSDS to the nearest medical emergency center.

VIII - SPILL OR LEAK PROCEDURE

Spill Management: Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin and clothing.

Waste Disposal Methods: This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

IX - PROTECTION INFORMATION/CONTROL MEASURES

Respiratory: Airborne concentrations should be kept to lowest levels possible. If vapor, dust or mist is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air-supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Eye Protection: Safety glasses, chemical type goggles or face shield recommended to prevent eye contact.

Gloves: Chemical resistant gloves.

Other Clothing and Equipment: Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

Ventilation: Local exhaust ventilation recommended if generating vapor, dust or mist. If exhaust ventilation is not available or adequate, use NIOSH or MSHA approved respirator as appropriate. No exposure limit has been established for the product.

X - SPECIAL PRECAUTIONS

Precautions to be taken in Handling and Storing: Wear protective clothing where possible. Launder as required. Skin exposed to product should be washed several times daily with soap and water.

Additional Information: None

NFPA
Health Hazard...........: 1
Fire Hazard...............: 1
Reactivity..................: 0
Specific Hazard.........:

HMIS RATING
Health Hazard.............: 1
Fire Hazard................: 1
Reactivity..................: 0
Personal Protection....: X (Sec. 9)

Revision Date: 8/6/2004

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