**Section 1 - Chemical Product and Company Identification**

**Product Trade Name** ALODINE 600 RTU  
**Manufacturer Information**  
Henkel Surface Technologies  
Henkel Corporation  
32100 Stephenson Highway  
Madison Heights, MI 48071  
Contact Phone: (248) 583-9300  
Chemtrec Emergency #: (800) 424-9300

**Section 2 - Composition / Information on Ingredients**

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>13755-29-8</td>
<td>Sodium fluoborate</td>
<td>1-10</td>
</tr>
<tr>
<td>7738-94-5</td>
<td>Chromic acid</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

Component Related Regulatory Information  
This product may be regulated, have exposure limits or other information identified as the following: Chromium (VI) compounds - water soluble, (RR-00026-0), (18540-29-9).

**Section 3 - Hazards Identification**

**Emergency Overview:**  
DANGER -- CORROSIVE! Contact with this material will cause burns to the skin, eyes and mucous membranes. May cause blindness. Contact with broken skin may result in ulcers. Prolonged or repeated breathing may cause ulceration of nasal membranes. Cancer Hazard. Contains material which can cause cancer.

**Eye Contact:**  
This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.

**Skin Contact:**  
Contact with broken skin may lead to formation of firmly margined "chrome sores". Product contains chromium, which may cause an allergic skin sensitization reaction. Massive overexposures may lead to kidney failure and death.

**Skin Absorption:**  
A component in this product may be harmful or fatal if absorbed through the skin, especially if skin is damaged.

**Ingestion:**  
This product may produce corrosive damage to the gastrointestinal tract if it is swallowed.

**Inhalation:**  
Inhalation of mists of this product may cause severe irritation and burns to the respiratory tract.

**Medical Conditions Aggravated by Exposure:**  
Pre-existing eye, skin and respiratory disorders. Kidney disorders.

**Section 4 - First Aid Measures**

**Eye Contact:**  
In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes, and seek immediate medical attention.

**Skin Contact:**  
Immediately take off all contaminated clothing. For skin contact, flush with large amounts of water. Seek immediate medical attention. If irritation persists, repeat flushing and get medical attention. Discard any shoes or clothing items that cannot be decontaminated.

**Ingestion:**  
If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Material Safety Data Sheet

Material Name: ALODINE 600 RTU  ID: 236705

Inhalation:
If mist or vapor of this product is inhaled, remove person immediately to fresh air. Seek medical attention if symptoms develop or persist.

First Aid: Notes to Physician
No additional information available.

*** Section 5 - Fire Fighting Measures ***

<table>
<thead>
<tr>
<th>Flash Point:</th>
<th>Method Used:</th>
<th>Flammability Classification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Upper Flammable Limit (UFL): Not applicable
Lower Flammable Limit (LFL): Not applicable

Fire & Explosion Hazards:
If evaporated to dryness, solid residue is an oxidizing agent and may cause spontaneous ignition of combustible materials.

Decomposition Products:
Decomposition of this product may emit oxides of nitrogen.

Extinguishing Media:
Use any media suitable for the surrounding fires.

Fire-Fighting Instructions:
Firefighters should wear full protective clothing including self contained breathing apparatus.

*** Section 6 - Accidental Release Measures ***

Containment Procedures:
Stop the flow of material, if this is without risk. Wear appropriate protective equipment and clothing during clean-up. Remove sources of ignition.

Clean-Up Procedures:
Absorb spill with inert material. Shovel material into appropriate container for disposal. Dispose of collected material according to regulation.

*** Section 7 - Handling and Storage ***

Handling Procedures:
Do not get this material in your eyes, on your skin, or on your clothing. Do not inhale vapors or mists of this product. Wash thoroughly after handling. Use this product with adequate ventilation. Clothing or other material wet with this product and allowed to dry may become flammable. For industrial use only. Do not take internally.

Storage Procedures:
Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

*** Section 8 - Exposure Controls / Personal Protection ***

Exposure Guidelines:
A: General Product Information
Follow all applicable exposure limits.

B: Component Exposure Limits
Chromic acid (7738-94-5)
ACGIH: 0.05 mg/m³ TWA (as Cr) (related to Chromium (VI) compounds, water-soluble)
OSHA: 0.1 mg/m³ Ceiling (and chromates)

Engineering Controls:
Ventilation should effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.
PERSONAL PROTECTIVE EQUIPMENT

As prescribed in the OSHA Standard for Personal Protective Equipment (29 CFR 1910.132), employers must perform a Hazard Assessment of all workplaces to determine the need for, and selection of, proper protective equipment for each task performed.

Eyes/Face Protective Equipment:
Wear chemical goggles; face shield (if splashing is possible).

Skin Protection:
Use impervious gloves. Gloves should be tested to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

Respiratory Protection:
If ventilation is not sufficient to effectively prevent buildup of aerosols or vapors, appropriate NIOSH/MSHA respiratory protection must be provided.

Work Practices:
Eye wash fountain and emergency showers are recommended.

*** Section 9 - Physical & Chemical Properties ***

<table>
<thead>
<tr>
<th>Physical State: Liquid</th>
<th>Appearance: Light orange</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor: Acid</td>
<td>Vapor Pressure: Not determined</td>
</tr>
<tr>
<td>Vapor Density: Not determined</td>
<td>Boiling Point: &gt;212 °F (&gt;100 °C)</td>
</tr>
<tr>
<td>Specific Gravity: 1.0-1.1</td>
<td>pH: 2.2</td>
</tr>
<tr>
<td>Viscosity: Not determined</td>
<td>VOC: Not applicable</td>
</tr>
<tr>
<td>Solubility Water: Complete</td>
<td>Evaporation Rate: Not determined</td>
</tr>
<tr>
<td>Percent Volatile: Not applicable</td>
<td>Percent Solids: Not determined</td>
</tr>
</tbody>
</table>

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability:
Stable under normal conditions.

Conditions to Avoid:
None expected.

Incompatibility:
Avoid contact with organic materials, oils, greases, and any oxidizable materials.

Decomposition Products:
Decomposes with heat to produce oxides of nitrogen.

Hazardous Polymerization:
Will not occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity:
A: General Product Information
Industrial exposure to chromium may cause dermatitis, skin ulcers, perforation of the nasal septum, as well as cancers of the lungs, nasal cavity and paranasal sinuses.

B: Component Analysis - LD50/LC50
No LD50/LC50's are available for this product's components.

Carcinogenicity:
A: General Product Information
No information available for the product.

B: Component Carcinogenicity
Chromic acid (7738-94-5)
ACGIH: A1 - Confirmed Human Carcinogen (related to Chromium (VI) water soluble compounds)
Chronic Toxicity
   Excessive exposure to chromium VI can produce allergic skin sensitization reactions and severe nasal irritation, scarring and damage to the lungs, liver and kidney damage. 
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Epidemiology:  
   No information available for the product.

Neurotoxicity:  
   No information available for the product.

Mutagenicity:  
   No information available for the product.

Teratogenicity:  
   No information available for the product.

Other Toxicological Information:  
   None available.

*** Section 12 - Ecological Information ***

Ecotoxicity:  
A: General Product Information  
   No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity  
   No ecotoxicity data are available for this product's components.

Environmental Fate:  
   No data available for this product.

*** Section 13 - Disposal Considerations ***

US EPA Waste Numbers & Descriptions:  
A: General Product Information  
   This product contains chromium which is a hazardous waste (D007).

B: Component Waste Numbers  
   No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions:  
   Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

*** Section 14 - Transportation Information ***

US DOT Information  
   Shipping Name: Please refer to the container label for transportation information.
**Section 15 - Regulatory Information**

**US Federal Regulations**

**A: General Product Information**
This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

**B: Component Analysis**
This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

- **Chromic acid** (7738-94-5)
  - **CERCLA:** 10 lb final RQ; 4.54 kg final RQ

**State Regulations**

**A: General Product Information**
No additional information available.

**B: Component Analysis - State**
The following components appear on one or more of the following state hazardous substances lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>CA</th>
<th>FL</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chromic acid</td>
<td>7738-94-5</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Other Regulations**

**A: General Product Information**
All components are on the U.S. EPA TSCA Inventory List.

**B: Component Analysis - Inventory**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>DSL</th>
<th>EINECS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium fluoborate</td>
<td>13755-29-8</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Chromic acid</td>
<td>7738-94-5</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**C: Component Analysis - WHMIS IDL**
No components are listed in the WHMIS IDL.

**Section 16 - Other Information**

**NFPA Ratings**
- **Health:** 3
- **Fire:** 0
- **Reactivity:** 0

**HMS Ratings**
- **Health:** 3
- **Fire:** 0
- **Reactivity:** 0

**Key/legend**
- EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; NFPA = National Fire Protection Association; HMIS = Hazardous Material Identification System; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Henkel Surface Technologies bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.
This is the end of MSDS # 236705