1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: TRASAR® TRAC101
APPLICATION: CORROSION INHIBITOR
COMPANY IDENTIFICATION: Nalco Company
1601 W. Diehl Road
Naperville, Illinois
60563-1198

EMERGENCY TELEPHONE NUMBER(S): (800) 424-9300 (24 Hours) CHEMTREC

NFPA 704M/HMIS RATING
HEALTH: 1 / 2 FLAMMABILITY: 0 / 0 INSTABILITY: 0 / 0 OTHER: 0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme

2. COMPOSITION/INFORMATION ON INGREDIENTS

Our hazard evaluation has identified the following chemical substance(s) as hazardous. Consult Section 15 for the nature of the hazard(s).

<table>
<thead>
<tr>
<th>Hazardous Substance(s)</th>
<th>CAS NO</th>
<th>% (w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Nitrite</td>
<td>7632-00-0</td>
<td>10.0 - 30.0</td>
</tr>
<tr>
<td>Sodium Molybdate</td>
<td>7631-95-0</td>
<td>1.0 - 5.0</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

WARNING
Contains sodium nitrite. Substances in the product can lead to the formation of methemoglobin. Unborn children are particularly sensitive to methemoglobinemia. May be harmful or fatal if swallowed. Irritating to eyes and skin. Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Wear suitable protective clothing. Not flammable or combustible. If product is allowed to dry, the sodium nitrite is an oxidizing agent and can initiate the combustion of other materials. May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.

PRIMARY ROUTES OF EXPOSURE:
Eye, Skin

HUMAN HEALTH HAZARDS - ACUTE:

EYE CONTACT: Can cause moderate to severe irritation.
SKIN CONTACT:
Can cause mild to moderate irritation.

INGESTION:
Not a likely route of exposure. Ingestion of sodium nitrite can cause methemoglobinemia which can lead to cyanosis and possible death. Large exposures may be fatal. Pregnant women and their fetuses are particularly sensitive to the effects of methemoglobinemia.

INHALATION:
Not a likely route of exposure. Aerosols or product mist may irritate the upper respiratory tract.

SYMPTOMS OF EXPOSURE:
Acute:
A review of available data does not identify any symptoms from exposure not previously mentioned.
Chronic:
A review of available data does not identify any symptoms from exposure not previously mentioned.

AGGRAVATION OF EXISTING CONDITIONS:
Sodium Nitrite. Pregnant women are particularly sensitive to methemoglobinemia.

HUMAN HEALTH HAZARDS - CHRONIC:
Repeated ingestion of small amounts of sodium nitrite causes drops in blood pressure, rapid pulse, headaches and visual disturbances. It may also react with organic amines in the body to form carcinogenic nitrosamines.

4. FIRST AID MEASURES

EYE CONTACT:
Immediately flush eye with water for at least 15 minutes while holding eyelids open. Get medical attention.

SKIN CONTACT:
Flush affected area with water. Get medical attention.

INGESTION:
Do not induce vomiting without medical advice. If conscious, washout mouth and give water to drink. If reflexive vomiting occurs, rinse mouth and repeat administration of water. Get immediate medical attention.

INHALATION:
Remove to fresh air, treat symptomatically. If symptoms develop, seek medical advice.

NOTE TO PHYSICIAN:
Based on the individual reactions of the patient, the physician's judgement should be used to control symptoms and clinical condition.

5. FIRE FIGHTING MEASURES

FLASH POINT:
Not applicable
MATERIAL SAFETY DATA SHEET

PRODUCT

TRASAR® TRAC101

EMERGENCY TELEPHONE NUMBER(S)
(800) 424-9300 (24 Hours) CHEMTREC

EXTINGUISHING MEDIA:
Not expected to burn. Use extinguishing media appropriate for surrounding fire.

FIRE AND EXPLOSION HAZARD:
Not flammable or combustible. If product is allowed to dry, the sodium nitrite is an oxidizing agent and can initiate the combustion of other materials. May evolve oxides of carbon (COx) under fire conditions. May evolve oxides of nitrogen (NOx) under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTING:
In case of fire, wear a full face positive-pressure self contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:
Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Do not touch spilled material. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Notify appropriate government, occupational health and safety and environmental authorities.

METHODS FOR CLEANING UP:
SMALL SPILLS: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. LARGE SPILLS: Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal.

ENVIRONMENTAL PRECAUTIONS:
Do not contaminate surface water.

7. HANDLING AND STORAGE

HANDLING:
Do not get in eyes, on skin, on clothing. Do not take internally. Use with adequate ventilation. Do not breathe vapors/gases/dust. Keep the containers closed when not in use. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labelled.

STORAGE CONDITIONS:
Store in suitable labelled containers. Store the containers tightly closed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE LIMITS:
Exposure guidelines have not been established for this product. Available exposure limits for the substance(s) are shown below.

ACGIH/TLV:
Substance(s) TWA: 5 mg/m3
Molybdenum (as Mo), Soluble Compounds

Nalco Company 1601 W. Diehl Road • Naperville, Illinois 60563-1198
(630)305-1000
3 / 10
OSHA/PEL:
Substance(s)
  Molybdenum (as Mo), TWA: 5 mg/m³
Soluble Compounds

ENGINEERING MEASURES:
General ventilation is recommended.

RESPIRATORY PROTECTION:
Where concentrations in air may exceed the limits given in this section, the use of a half face filter mask or air supplied breathing apparatus is recommended. A suitable filter material depends on the amount and type of chemicals being handled. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

HAND PROTECTION:
When handling this product, the use of chemical gloves is recommended. The choice of work glove depends on work conditions and what chemicals are handled, but we have positive experience under light handling conditions using gloves made from PVC or nitrile. Gloves should be replaced immediately if signs of degradation are observed. Breakthrough time not determined as preparation, consult PPE manufacturers.

SKIN PROTECTION:
When handling this product, the use of overalls, a chemical resistant apron and rubber boots is recommended. A full slicker suit is recommended if gross exposure is possible.

EYE PROTECTION:
Wear chemical splash goggles.

HYGIENE RECOMMENDATIONS:
Use good work and personal hygiene practices to avoid exposure. Keep an eye wash fountain available. Keep a safety shower available. If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse. Always wash thoroughly after handling chemicals. When handling this product never eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL STATE</td>
<td>Liquid</td>
</tr>
<tr>
<td>APPEARANCE</td>
<td>Clear Light Gold Light yellow</td>
</tr>
<tr>
<td>ODOR</td>
<td>None</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>1.25 - 1.29 @ 60 °F / 15.6 °C</td>
</tr>
<tr>
<td>DENSITY</td>
<td>10.42 - 10.76 lb/gal</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>Complete</td>
</tr>
<tr>
<td>pH (100 %)</td>
<td>13</td>
</tr>
</tbody>
</table>

Note: These physical properties are typical values for this product and are subject to change.
10. STABILITY AND REACTIVITY

STABILITY:
Stable under normal conditions.

HAZARDOUS POLYMERIZATION:
Hazardous polymerization will not occur.

CONDITIONS TO AVOID:
Freezing temperatures.

MATERIALS TO AVOID:
Strong acids Contact with strong acids (e.g. sulfuric, phosphoric, nitric, hydrochloric, chronic, sulfonic) may generate heat, splattering or boiling and toxic vapors. Contact with reducing agents (e.g. hydrazine, sulfites, sulfide, aluminum or magnesium dust) may generate heat, fires, explosions and toxic vapors. Do not mix with amines. Sodium nitrite can react with certain amines to produce N-nitrosamines, many of which are cancer-causing agents to laboratory animals.

HAZARDOUS DECOMPOSITION PRODUCTS:
Under fire conditions: Oxides of nitrogen, Oxides of carbon

11. TOXICOLOGICAL INFORMATION

No toxicity studies have been conducted on this product.

SENSITIZATION:
This product is not expected to be a sensitizer.

CARCINOGENICITY:
None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP) or the American Conference of Governmental Industrial Hygienists (ACGIH).

HUMAN HAZARD CHARACTERIZATION:
Based on our hazard characterization, the potential human hazard is: High

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL EFFECTS:
No toxicity studies have been conducted on this product.

MOBILITY:
The environmental fate was estimated using a level III fugacity model embedded in the EPI (estimation program interface) Suite TM, provided by the US EPA. The model assumes a steady state condition between the total input and output. The level III model does not require equilibrium between the defined media. The information provided is intended to give the user a general estimate of the environmental fate of this product under the defined conditions of
the models. If released into the environment this material is expected to distribute to the air, water and soil/sediment in the approximate respective percentages:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Soil/Sediment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt;5%</td>
<td>30 - 50%</td>
<td>50 - 70%</td>
</tr>
</tbody>
</table>

The portion in water is expected to be soluble or dispersible.

**BIOACCUMULATION POTENTIAL**
This preparation or material is not expected to bioaccumulate.

**ENVIRONMENTAL HAZARD AND EXPOSURE CHARACTERIZATION**
Based on our hazard characterization, the potential environmental hazard is: Moderate

If released into the environment, see CERCLA/SUPERFUND in Section 15.

### 13. DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous waste, it is not subject to federal regulation. Consult state or local regulation for any additional handling, treatment or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal or recycling facility.

### 14. TRANSPORT INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper Shipping Name / Hazard Class may vary by packaging, properties, and mode of transportation. Typical Proper Shipping Names for this product are as follows.

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

**LAND TRANSPORT :**

- **Proper Shipping Name :** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
- **Technical Name(s) :** SODIUM NITRITE
- **UN/ID No :** UN 3082
- **Hazard Class - Primary :** 9
- **Packing Group :** III
- **Flash Point :** Not applicable
- **DOT Reportable Quantity (per package) :** 410 lbs
- **DOT RQ Component :** SODIUM NITRITE
MATERIAL SAFETY DATA SHEET

PRODUCT

TRASAR® TRAC101

EMERGENCY TELEPHONE NUMBER(S)

(800) 424-9300 (24 Hours) CHEMTREC

AIR TRANSPORT (ICAO/IATA):

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Technical Name(s): SODIUM NITRITE
UN/ID No: UN 3082
Hazard Class - Primary: 9
Packing Group: III
IATA Cargo Packing Instructions: 914
IATA Cargo Aircraft Limit: NO LIMIT (Max net quantity per package)

MARINE TRANSPORT (IMDG/IMO):

Proper Shipping Name: PRODUCT IS NOT REGULATED DURING TRANSPORTATION

15. REGULATORY INFORMATION

NATIONAL REGULATIONS, USA:

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:
Based on our hazard evaluation, the following substance(s) in this product is/are hazardous and the reason(s) is/are shown below.

Sodium Nitrite: Target Organ Effect - Kidney, Target Organ Effect - Nervous system, Target Organ Effect - Blood
Sodium Molybdate: Exposure Limit - Compound Class

CERCLA/SUPERFUND, 40 CFR 117, 302:
This product contains the following Reportable Quantity (RQ) Substance. Also listed is the RQ for the product. If a reportable quantity of product is released, it requires notification to the NATIONAL RESPONSE CENTER, WASHINGTON, D.C. (1-800-424-8802).

<table>
<thead>
<tr>
<th>RQ Substance</th>
<th>RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Nitrite</td>
<td>410 lbs</td>
</tr>
</tbody>
</table>

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312, AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):
This product does not contain substances listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):
Our hazard evaluation has found this product to be hazardous. The product should be reported under the following indicated EPA hazard categories:

X Immediate (Acute) Health Hazard
X Delayed (Chronic) Health Hazard
Fire Hazard
Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372) :
This product contains the following substance(s), (with CAS # and % range) which appear(s) on the List of Toxic Chemicals

<table>
<thead>
<tr>
<th>Hazardous Substance(s)</th>
<th>CAS NO</th>
<th>% (w/w)</th>
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<td>10.0 - 30.0</td>
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</table>

TOXIC SUBSTANCES CONTROL ACT (TSCA) :
The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory (40 CFR 710)

This product has been certified as KOSHER/PAREVE for year-round use INCLUDING THE PASSOVER SEASON by the CHICAGO RABBINICAL COUNCIL.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 / formerly Sec. 307, 40 CFR 116.4 / formerly Sec. 311 :
This product contains the following substances listed in the regulation:

<table>
<thead>
<tr>
<th>Substance(s)</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sodium Nitrite</td>
<td>Sec. 311</td>
</tr>
</tbody>
</table>

CLEAN AIR ACT, Sec. 111 (40 CFR 60, Volatile Organic Compounds), Sec. 112 (40 CFR 61, Hazardous Air Pollutants), Sec. 602 (40 CFR 82, Class I and II Ozone Depleting Substances) :
None of the substances are specifically listed in the regulation.

CALIFORNIA PROPOSITION 65 :
This product does not contain substances which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS :
None of the substances are specifically listed in the regulation.

STATE RIGHT TO KNOW LAWS :
The following substances are disclosed for compliance with State Right to Know Laws:

<table>
<thead>
<tr>
<th>Substance(s)</th>
<th>CAS NO</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

NATIONAL REGULATIONS, CANADA :

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) :
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.
WHMIS CLASSIFICATION:
D1B - Materials Causing Immediate and Serious Toxic Effects - Toxic Material, D2B - Materials Causing Other Toxic Effects - Toxic Material

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):
The substances in this preparation are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

INTERNATIONAL CHEMICAL CONTROL LAWS

AUSTRALIA
All substances in this product comply with the National Industrial Chemicals Notification & Assessment Scheme (NICNAS).

EUROPE
The substances in this preparation have been reviewed for compliance with the EINECS or ELINCS inventories.

JAPAN
All substances in this product comply with the Law Regulating the Manufacture and Importation Of Chemical Substances and are listed on the Ministry of International Trade & Industry List (MITI).

KOREA
All substances in this product comply with the Toxic Chemical Control Law (TCCL) and are listed on the Existing Chemicals List (ECL)

THE PHILIPPINES
All substances in this product comply with the Republic Act 6969 (RA 6969) and are listed on the Philippine Inventory of Chemicals & Chemical Substances (PICCS).

16. OTHER INFORMATION

This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

REFERENCES

Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists, OH., (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, Maryland (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Registry of Toxic Effects of Chemical Substances, National Institute for Occupational Safety and Health, Cincinnati, OH, (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.</td>
</tr>
<tr>
<td>Ariel Insight# (An integrated guide to industrial chemicals covered under major regulatory and advisory programs), North American Module, Western European Module, Chemical Inventories Module and the Generics Module (Ariel Insight# CD-ROM Version), Ariel Research Corp., Bethesda, MD.</td>
</tr>
<tr>
<td>The Teratogen Information System, University of Washington, Seattle, WA (TOMES CPS# CD-ROM Version), Micromedex, Inc., Englewood, CO.</td>
</tr>
</tbody>
</table>

Prepared By: Product Safety Department  
Date issued: 02/03/2005  
Version Number: 1.1