# SAFETY DATA SHEET

Dirt and Grease Cleaner

## Section 1. Identification

<table>
<thead>
<tr>
<th>GHS product identifier</th>
<th>Dirt and Grease Cleaner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
<td>Not available.</td>
</tr>
<tr>
<td>Product type</td>
<td>Liquid.</td>
</tr>
</tbody>
</table>

**Relevant identified uses of the substance or mixture and uses advised against**

**Product use**

Remove oil stains (motor oils and other greasy stains) on pavers and concrete.

**Area of application**

Consumer applications, Professional applications.

**Supplier/Manufacturer**

Techniseal  
300, avenue Liberté  
Candiac, QC, Canada, J5R 6X1  
Tel: (514) 523-2110  
Toll free: 1-800-465-7325  
Fax: (450) 633-3035

**e-mail address of person responsible for this SDS**

service@techniseal.com

**Emergency telephone number (with hours of operation)**

CANUTEC (613) 996-6666

## Section 2. Hazards identification

**OSHA/HCS status**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Classification of the substance or mixture**

- H314 SKIN CORROSION - Category 1  
- H318 SERIOUS EYE DAMAGE - Category 1  
- H317 SKIN SENSITIZATION - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 3.7%

**GHS label elements**

**Hazard pictograms**

![Hazard Pictograms]

- Danger

**Signal word**

- Danger

**Hazard statements**

- H314 - Causes severe skin burns and eye damage.  
- H317 - May cause an allergic skin reaction.

**Precautionary statements**

**General**

- P103 - Read label before use.  
- P102 - Keep out of reach of children.  
- P101 - If medical advice is needed, have product container or label at hand.

**Prevention**

- P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.  
- P261 - Avoid breathing vapor.  
- P264 - Wash hands thoroughly after handling.  
- P272 (OSHA) - Contaminated work clothing must not be allowed out of the workplace.
Section 2. Hazards identification

Response:
P304 + P340 + P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician.
P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 + P363 + P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician.
P302 + P352 + P363 - IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse.
P333 + P313 - If skin irritation or rash occurs: Get medical attention.
P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage:
P405 - Store locked up.

Disposal:
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements:
Do not taste or swallow. Wash thoroughly after handling.

Section 3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other means of identification</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

CAS number/other identifiers

<table>
<thead>
<tr>
<th>CAS number</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product code</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>Other names</th>
<th>%</th>
<th>CAS number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated</td>
<td>-</td>
<td>≥5 - &lt;10</td>
<td>68439-46-3</td>
</tr>
<tr>
<td>Phosphoric acid, sodium salt, hydrate (1:3:12)</td>
<td>-</td>
<td>≥3 - &lt;5</td>
<td>10101-89-0</td>
</tr>
<tr>
<td>disodium metasilicate</td>
<td>-</td>
<td>≥1 - &lt;3</td>
<td>6834-92-0</td>
</tr>
<tr>
<td>1-proproxypropan-2-ol</td>
<td>-</td>
<td>≥1 - &lt;3</td>
<td>1569-01-3</td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>-</td>
<td>≥1 - &lt;3</td>
<td>68439-57-6</td>
</tr>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>-</td>
<td>≥1 - &lt;3</td>
<td>5989-27-5</td>
</tr>
</tbody>
</table>

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Section 4. First aid measures

**Description of necessary first aid measures**

**Eye contact**: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

**Inhalation**: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain...
Section 4. First aid measures

Skin contact: Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact: Causes serious eye damage.
Inhalation: No known significant effects or critical hazards.
Skin contact: Causes severe burns. May cause an allergic skin reaction.
Ingestion: Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:
pain
watering
redness
Inhalation: No specific data.
Skin contact: Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur
Ingestion: Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific treatments: No specific treatment.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)
Section 5. Fire-fighting measures

Extinguishing media

**Suitable extinguishing media**: Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media**: Do not use water jet.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

Decomposition products may include the following materials:
- Carbon dioxide
- Carbon monoxide
- Sulfur oxides
- Phosphorus oxides
- Metal oxide/oxides

In a fire or if heated, a pressure increase will occur and the container may burst.

Special protective actions for fire-fighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Environmental precautions

**Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel

CAUTION: Product forms slippery surface when combined with water. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Methods and materials for containment and cleaning up

**Small spill**

CAUTION: Product forms slippery surface when combined with water. Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill**

CAUTION: Product forms slippery surface when combined with water. Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.
Section 7. Handling and storage

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Do not store below the following temperature: 21°C (69.8°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Aluminum tanks or containers not acceptable.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits: None.

Appropriate engineering controls: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Advise of the slippery nature of the product.

Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection
Section 8. Exposure controls/personal protection

**Hand protection**: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection**: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection**: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection**: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. Recommended: If ventilation is inadequate, use respirator that will protect against dust/mist. If inhalation hazards exist, a full-face respirator may be required instead.

Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Physical state</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Green.</td>
</tr>
<tr>
<td>Odor</td>
<td>Pine.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>13.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>-2°C (28.4°F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Miscible in water.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>SADT</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Dynamic (room temperature): 20 mPa·s (20 cP)</td>
</tr>
<tr>
<td>Density</td>
<td>1.054 g/cm³</td>
</tr>
</tbody>
</table>
Section 10. Stability and reactivity

Reactivity: No specific test data related to reactivity available for this product or its ingredients.

Chemical stability: The product is stable.

Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid: No specific data.

Incompatible materials: Reactive or incompatible with the following materials: oxidizing materials and acids. Polymerization catalysts as aluminum chloride and acidic clays. Ammonia.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1378 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>Phosphoric acid, sodium salt, hydrate (1:3:12)</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>7400 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>disodium metasilicate</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>1153 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>1-propoxypropan-2-ol</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>3550 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>LD50 Dermal</td>
<td>Rabbit</td>
<td>&gt;5000 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2504 mg/kg</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4400 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

Irritation/Corrosion

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Score</th>
<th>Exposure</th>
<th>Observation</th>
</tr>
</thead>
<tbody>
<tr>
<td>disodium metasilicate</td>
<td>Skin - Moderate irritant</td>
<td>Guinea pig</td>
<td>-</td>
<td>24 hours 250 milligrams</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Skin - Severe irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 250 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>1-propoxypropan-2-ol</td>
<td>Eyes - Moderate irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>100 milligrams</td>
<td>-</td>
</tr>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>Skin - Mild irritant</td>
<td>Rabbit</td>
<td>-</td>
<td>24 hours 10 Percent</td>
<td>-</td>
</tr>
</tbody>
</table>

Sensitization

Not available.

Mutagenicity

Conclusion/Summary: Not available.

Carcinogenicity

Conclusion/Summary: Not available.

Classification

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>OSHA</th>
<th>IARC</th>
<th>NTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>-</td>
<td>3</td>
<td>-</td>
</tr>
</tbody>
</table>

Reproductive toxicity

Conclusion/Summary: Not available.
Section 11. Toxicological information

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

<table>
<thead>
<tr>
<th>Name</th>
<th>Category</th>
<th>Route of exposure</th>
<th>Target organs</th>
</tr>
</thead>
<tbody>
<tr>
<td>disodium metasilicate</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
<tr>
<td>1-propoxypropan-2-ol</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Narcotic effects</td>
</tr>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>Category 3</td>
<td>Not applicable.</td>
<td>Respiratory tract irritation</td>
</tr>
</tbody>
</table>

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes severe burns. May cause an allergic skin reaction.
Ingestion : Corrosive to the digestive tract. Causes burns.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : No specific data.

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : No known significant effects or critical hazards.
Section 11. Toxicological information

**Mutagenicity:** No known significant effects or critical hazards.

**Teratogenicity:** No known significant effects or critical hazards.

**Developmental effects:** No known significant effects or critical hazards.

**Fertility effects:** No known significant effects or critical hazards.

**Numerical measures of toxicity**

**Acute toxicity estimates**

<table>
<thead>
<tr>
<th>Route</th>
<th>ATE value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>14836.2 mg/kg</td>
</tr>
<tr>
<td>Dermal</td>
<td>186842.1 mg/kg</td>
</tr>
</tbody>
</table>

Section 12. Ecological information

**Toxicity**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated disodium metasilicate</td>
<td>Acute EC50 5.36 mg/l Fresh water Acute EC50 2686 µg/l Fresh water</td>
<td>Crustaceans - Ceriodaphnia dubia - Neonate Daphnia - Daphnia magna - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 8500 µg/l Fresh water Acute EC50 33.53 mg/l Fresh water</td>
<td>Fish - Pimephales promelas Crustaceans - Ceriodaphnia dubia - Neonate</td>
<td>48 hours</td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>Acute LC50 2320 ppm Fresh water Acute EC50 4.53 mg/l Fresh water</td>
<td>Crustaceans - Ceriodaphnia dubia - Neonate Fish - Gambusia affinis - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>Acute LC50 4.2 mg/l Acute EC50 421 µg/l Fresh water Acute EC50 688 µg/l Fresh water</td>
<td>Fish - Brachydanio rerio Daphnia - Daphnia magna Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

**Persistence and degradability**

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Test</th>
<th>Result</th>
<th>Dose</th>
<th>Inoculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>302B Inherent Biodegradability; Zahn-Wellens/ EMPA Test</td>
<td>85 % - 28 days</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**
Section 12. Ecological information

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>LogP_{ow}</th>
<th>BCF</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated 1-propoxypropan-2-ol, and 1-propoxypropan-2-ol</td>
<td>-</td>
<td>0.621</td>
<td>low</td>
</tr>
<tr>
<td>Sulfoacids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts</td>
<td>-</td>
<td>-</td>
<td>low</td>
</tr>
<tr>
<td>(R)-p-mentha-1,8-diene</td>
<td>4.38</td>
<td>1022</td>
<td>high</td>
</tr>
</tbody>
</table>

Mobility in soil

Soil/water partition coefficient (K_{ow}): Not available.

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

<table>
<thead>
<tr>
<th>DOT Classification</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
<td>UN1760</td>
<td>UN1760</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>Corrosive liquids, n.o.s. (Phosphoric acid, sodium salt, hydrate (1:3:12), disodium metasilicate)</td>
<td>CORROSIVE LIQUID, N.O.S. (Phosphoric acid, sodium salt, hydrate (1:3:12), disodium metasilicate)</td>
</tr>
<tr>
<td>Transport hazard class(es)</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>No.</td>
<td>No.</td>
</tr>
<tr>
<td>Additional information</td>
<td>Limited quantity</td>
<td>Emergency schedules (EmS)</td>
</tr>
<tr>
<td></td>
<td>Yes.</td>
<td>F-A, S-B</td>
</tr>
<tr>
<td>Passenger aircraft</td>
<td>Quantity limitation: 5 L</td>
<td>Special provisions 223, 274</td>
</tr>
<tr>
<td>Cargo aircraft</td>
<td>Quantity limitation: 60 L</td>
<td></td>
</tr>
</tbody>
</table>

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United States
Section 14. Transport information

Special provisions
IB3, T7, TP1, TP28

Packaging instructions: Y841

Special provisions
A3, A803

Special precautions for user: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport within user's premises: Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

Section 15. Regulatory information

U.S. Federal regulations

Clean Water Act (CWA) 311: Phosphoric acid, sodium salt, hydrate (1:3:12); sodium hydroxide

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs): Not listed

Clean Air Act Section 602 Class I Substances: Not listed

Clean Air Act Section 602 Class II Substances: Not listed

DEA List I Chemicals (Precursor Chemicals): Not listed

DEA List II Chemicals (Essential Chemicals): Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ: Not applicable.

SARA 311/312

Classification: Immediate (acute) health hazard

Composition/information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>%</th>
<th>Fire hazard</th>
<th>Sudden release of pressure</th>
<th>Reactive</th>
<th>Immediate (acute) health hazard</th>
<th>Delayed (chronic) health hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohols, C9-11, ethoxylated</td>
<td>≥5 - &lt;10</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>Phosphoric acid, sodium salt, hydrate (1:3:12)</td>
<td>≥3 - &lt;5</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>disodium metasilicate</td>
<td>≥1 - &lt;3</td>
<td>No.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
<tr>
<td>Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts (R)-p-mentha-1,8-diene</td>
<td>≥1 - &lt;3</td>
<td>Yes.</td>
<td>No.</td>
<td>No.</td>
<td>Yes.</td>
<td>No.</td>
</tr>
</tbody>
</table>

SARA 313

Not applicable.

State regulations

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United States
Section 15. Regulatory information

**Massachusetts** : The following components are listed: PHOSPHORIC ACID TRISODIUM SALT, DODECAHYDRATE

**New York** : The following components are listed: Sodium phosphate, tribasic

**New Jersey** : None of the components are listed.

**Pennsylvania** : The following components are listed: PHOSPHORIC ACID, TRISODIUM SALT, DODECAHYDRATE

**California Prop. 65**
None of the components are listed.

**Chemical Weapon Convention List Schedules I, II & III Chemicals**
Not listed.

**Montreal Protocol (Annexes A, B, C, E)**
Not listed.

**Stockholm Convention on Persistent Organic Pollutants**
Not listed.

**Rotterdam Convention on Prior Inform Consent (PIC)**
Not listed.

**UNECE Aarhus Protocol on POPs and Heavy Metals**
Not listed.

Section 16. Other information

**Hazardous Material Information System (U.S.A.)**

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

**National Fire Protection Association (U.S.A.)**

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability/Reactivity</th>
<th>Special</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

**Procedure used to derive the classification**
Section 16. Other information

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Corr. 1, H314</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Eye Dam. 1, H318</td>
<td>On basis of test data</td>
</tr>
<tr>
<td>Skin Sens. 1, H317</td>
<td>Calculation method</td>
</tr>
</tbody>
</table>

History

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Prepared by                   : IHS

Key to abbreviations

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- UN = United Nations

References

- HCS (U.S.A.)- Hazard Communication Standard
- International transport regulations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.