1. IDENTIFICATION

Product identifier
Product Name  Ozone Reagent, High Range 0 - 1.50 mg/l O₃

Other means of identification
Product Code(s)  2518025

Safety data sheet number  M00511

Recommended use of the chemical and restrictions on use
Recommended Use  Laboratory reagent. Determination of ozone in water.
Uses advised against  None.
Restrictions on use  None.

Details of the supplier of the safety data sheet

Manufacturer Address  Hach Company P.O.Box 389  Loveland, CO 80539 USA +1(970) 669-3050

Emergency telephone number  +1(303) 623-5716 - 24 Hour Service  +1(515)232-2533 - 8am - 4pm CST

2. HAZARDS IDENTIFICATION

Classification

Regulatory Status  This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Vapors)  Category 4
Acute toxicity - Inhalation (Dusts/Mists)  Category 4
Skin corrosion/irritation
Serious eye damage/eye irritation  Category 2A
Respiratory sensitization
Skin sensitization
Mutagenicity
Carcinogenicity
Reproductive toxicity
Specific target organ toxicity (single exposure)  Category 3
Specific target organ toxicity (repeated exposure)

Hazards not otherwise classified (HNOC)  Not applicable

Label elements

Signal word - Warning
Hazard statements

H319 - Causes serious eye irritation
H332 - Harmful if inhaled
H335 - May cause respiratory irritation

Precautionary statements

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337 + P313 - If eye irritation persists: Get medical advice/attention
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P271 - Use only outdoors or in a well-ventilated area
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards Known
May be harmful if swallowed
Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Not applicable

Mixture

Percent ranges are used where confidential product information is applicable.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Percent Range</th>
<th>HMRIC #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propanedioic acid</td>
<td>141-82-2</td>
<td>50 - 60%</td>
<td>-</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

Description of first aid measures

General advice
Show this safety data sheet to the doctor in attendance.

Inhalation
Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If breathing has stopped, give artificial respiration. Get medical attention immediately. If symptoms persist, call a physician.

Eye contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.

Skin contact
Wash skin with soap and water.

Ingestion
Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

Self-protection of the first aider
Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Symptoms
Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Note to physicians
Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media
Caution: Use of water spray when fighting fire may be inefficient.

Specific hazards arising from the chemical
No information available.

Hazardous combustion products
Carbon monoxide, Carbon dioxide. Potassium oxides.

Special protective equipment for fire-fighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

6. ACCIDENTAL RELEASE MEASURES

U.S. Notice
Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation. Use personal protective equipment as required. Evacuate
personnel to safe areas. Avoid contact with skin, eyes or clothing. Avoid generation of dust. Do not breathe dust.

Other Information
Refer to protective measures listed in Sections 7 and 8.

Environmental precautions
See Section 12 for additional ecological information.

Methods and material for containment and cleaning up
Prevent further leakage or spillage if safe to do so.
Pick up and transfer to properly labeled containers.
Clean contaminated objects and areas thoroughly observing environmental regulations.
See section 8 for more information. See section 13 for more information.

7. HANDLING AND STORAGE

Precautions for safe handling
Advice on safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities
Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children.

Flammability class
Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Exposure Guidelines
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Appropriate engineering controls
Engineering Controls
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment
Respiratory protection
No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Hand Protection
Wear suitable gloves.

Eye/face protection
If splashes are likely to occur, wear safety glasses with side-shields.

Skin and body protection
Wear suitable protective clothing.
General Hygiene Considerations: Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray.

Environmental exposure controls: Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Thermal hazards: None under normal processing.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>powder</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Acidic</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>2.5</td>
<td>5% Solution</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>99 °C / 210 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Vapor density (air = 1)</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Specific gravity (water = 1 / air = 1)</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>log K&lt;sub&gt;ow&lt;/sub&gt; ~ 0</td>
<td></td>
</tr>
<tr>
<td>Soil Organic Carbon-Water Partition Coefficient</td>
<td>log K&lt;sub&gt;oc&lt;/sub&gt; ~ 0</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>Not applicable</td>
<td></td>
</tr>
</tbody>
</table>

#### Solubility(ies)

**Water solubility**

<table>
<thead>
<tr>
<th>Water solubility classification</th>
<th>Water solubility</th>
<th>Water Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble</td>
<td>&gt; 1000 mg/L</td>
<td>25 °C / 77 °F</td>
</tr>
</tbody>
</table>

**Solubility in other solvents**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Solubility classification</th>
<th>Solubility</th>
<th>Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid</td>
<td>Soluble</td>
<td>&gt; 1000 mg/L</td>
<td>25 °C / 77 °F</td>
</tr>
</tbody>
</table>
Metal Corrosivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel Corrosion Rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Aluminum Corrosion Rate</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Volatile Organic Compounds (VOC) Content
Not applicable

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Volatile organic compounds (VOC) content</th>
<th>CAA (Clean Air Act)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propanedioic acid</td>
<td>141-82-2</td>
<td>No data available</td>
<td>-</td>
</tr>
</tbody>
</table>

Explosive properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Flammable properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Flammability Limit in Air

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper flammability limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Oxidizing properties
No data available.

Bulk density
No data available

Particle Size
No information available

Particle Size Distribution
No information available

10. STABILITY AND REACTIVITY

Reactivity
Not applicable.

Chemical stability
Stable under normal conditions.

Explosion data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity to Mechanical Impact</td>
<td>None</td>
</tr>
<tr>
<td>Sensitivity to Static Discharge</td>
<td>None</td>
</tr>
</tbody>
</table>

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization
None under normal processing.

Conditions to avoid
Excessive heat.

Incompatible materials
Strong oxidizing agents, strong acids, and strong bases.
Hazardous Decomposition Products
Heating to decomposition releases toxic fumes of carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. Harmful by inhalation. (based on components).</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Specific test data for the substance or mixture is not available. May cause irritation. Prolonged contact may cause redness and irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.</td>
</tr>
</tbody>
</table>

Symptoms
May cause redness and tearing of the eyes. Coughing and/or wheezing.

Aggravated Medical Conditions
Skin disorders. Eye disorders. Respiratory disorders.

Toxicologically synergistic products
None known.

Toxicokinetics, metabolism and distribution
No information available.

Product Acute Toxicity Data

<table>
<thead>
<tr>
<th>Route</th>
<th>Toxicological information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Dermal Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Dust/Mist) Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Vapor) Exposure Route</td>
<td>No data available</td>
</tr>
<tr>
<td>Inhalation (Gas) Exposure Route</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Unknown Acute Toxicity
0% of the mixture consists of ingredient(s) of unknown toxicity.

Acute Toxicity Estimations (ATE)
The following values are calculated based on chapter 3.1 of the GHS document

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEmix (oral)</td>
<td>2,302.00 mg/kg</td>
</tr>
<tr>
<td>ATEmix (dermal)</td>
<td>No information available</td>
</tr>
<tr>
<td>ATEmix (inhalation-dust/mist)</td>
<td>2.60 mg/L</td>
</tr>
<tr>
<td>ATEmix (inhalation-vapor)</td>
<td>19.00 mg/L</td>
</tr>
<tr>
<td>ATEmix (inhalation-gas)</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Ingredient Acute Toxicity Data

<table>
<thead>
<tr>
<th>Route</th>
<th>Chemical name</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Toxicological effects</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Exposure Route</td>
<td>Propanedioic acid (50 - 60%)</td>
<td>Rat LD$_{50}$</td>
<td>1310 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>EPA (United States Environmental Protection Agency)</td>
</tr>
<tr>
<td>Dermal Exposure Route</td>
<td>Propanedioic acid (50 - 60%)</td>
<td>Rat LD$_{50}$</td>
<td>1310 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>EPA (United States Environmental Protection Agency)</td>
</tr>
<tr>
<td>Inhalation (Dust/Mist) Exposure Route</td>
<td>Propanedioic acid (50 - 60%)</td>
<td>Rat LD$_{50}$</td>
<td>1310 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>EPA (United States Environmental Protection Agency)</td>
</tr>
</tbody>
</table>
### Propanedioic acid (50 - 60%)

CAS#: 141-82-2

<table>
<thead>
<tr>
<th>Type</th>
<th>Test method</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inh. (Vapor) Exposure</td>
<td>Standard Draize Test</td>
<td>Rabbit</td>
<td>500 mg</td>
<td>24 hours</td>
<td>Mild skin irritant</td>
<td>Vendor SDS</td>
</tr>
<tr>
<td>Inh. (Gas) Exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Inhalation (Vapor) Exposure Route

Inhalation (Gas) Exposure Route: None reported.

### Inhalation (Gas) Exposure Route

Inhalation (Vapor) Exposure Route: None reported.

### Product Specific Target Organ Toxicity Single Exposure Data

| Oral Exposure Route          | No data available |
| Dermal Exposure Route        | No data available |
| Inhalation (Dust/Mist) Route | No data available |
| Inhalation (Vapor) Route     | No data available |
| Inhalation (Gas) Route       | No data available |

### Ingredient Specific Target Organ Toxicity Single Exposure Data

| Oral Exposure Route          | If available, see data below |
| Dermal Exposure Route        | If available, see data below |
| Inhalation (Dust/Mist) Route | If available, see data below |
| Inhalation (Vapor) Route     | If available, see data below |
| Inhalation (Gas) Route       | If available, see data below |

### Aspiration Toxicity

If available, see data below.

### Kinematic Viscosity

Not applicable.

### Product Skin Corrosion/Irritation Data

No data available.

### Ingredient Skin Corrosion/Irritation Data

If available, see data below.

### Product Serious Eye Damage/Eye Irritation Data

No data available.

### Ingredient Eye Damage/Eye Irritation Data

If available, see data below.

### Sensitization Information

**Product Sensitization Data**

Skin Sensitization Exposure Route: No data available.

Respiratory Sensitization Exposure Route: No data available.

**Ingredient Sensitization Data**

Skin Sensitization Exposure Route: If available, see data below.

Respiratory Sensitization Exposure Route: If available, see data below.

### Chronic Toxicity Information
Product Code(s) 2518025
Product Name Ozone Reagent, High Range 0 - 1.50 mg/l O₃
Issue Date 30-05-2018
Revision Date 30-May-2018

Product Specific Target Organ Toxicity Repeat Dose Data
Oral Exposure Route
Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data
Oral Exposure Route
Dermal Exposure Route
Inhalation (Dust/Mist) Exposure Route
Inhalation (Vapor) Exposure Route
Inhalation (Gas) Exposure Route

If available, see data below

Product Germ Cell Mutagenicity
invitro Data
No data available.

Ingredient Germ Cell Mutagenicity
invitro Data
No data available

Product Germ Cell Mutagenicity
invivo Data
No data available

Ingredient Germ Cell Mutagenicity
invivo Data

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Test</th>
<th>Species</th>
<th>Reported dose</th>
<th>Exposure time</th>
<th>Results</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propanedioic acid (50 - 60%) CAS#: 141-82-2</td>
<td>Morphological transformation</td>
<td>Rat</td>
<td>10080 mg/kg</td>
<td>6 weeks</td>
<td>Positive test result for mutagenicity</td>
<td>RTECS (Registry of Toxic Effects of Chemical Substances)</td>
</tr>
</tbody>
</table>

Legend

ACGIH (American Conference of Governmental Industrial Hygienists) Does not apply
IARC (International Agency for Research on Cancer) Does not apply
NTP (National Toxicology Program) Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of Labor) Does not apply
12. ECOLOGICAL INFORMATION

Ecotoxicity

Not considered to be harmful to aquatic life

Product Ecological Data

Aquatic toxicity

Fish

No data available

Crustacea

No data available

Algae

No data available

Ingredient Ecological Data

Aquatic toxicity

Fish

If available, see ingredient data below

Crustacea

If available, see ingredient data below

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Exposure time</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Reported dose</th>
<th>Key literature references and sources for data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propanedioic acid (50 - 60%)</td>
<td>48 Hours</td>
<td><em>Daphnia magna</em></td>
<td><em>EC₅₀</em></td>
<td>275 mg/L</td>
<td>EPA (United States Environmental Protection Agency)</td>
</tr>
<tr>
<td>CAS#: 141-82-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Algae

No data available

Other Information

Persistence and degradability

Product Biodegradability Data

No data available.

Ingredient Biodegradability Data

Bioaccumulation

Product Bioaccumulation Data

No data available.

Partition Coefficient (n-octanol/water)

\( \log K_{ow} \approx 0 \)

Ingredient Bioaccumulation Data
### Mobility

**Soil Organic Carbon-Water Partition Coefficient**  
log $K_{oc} \sim 0$

### Water solubility

<table>
<thead>
<tr>
<th>Water solubility classification</th>
<th>Water solubility</th>
<th>Water Solubility Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soluble</td>
<td>&gt; 1000 mg/L</td>
<td>25 °C / 77 °F</td>
</tr>
</tbody>
</table>

### Other adverse effects

No information available.

---

## 13. DISPOSAL CONSIDERATIONS

### Waste treatment methods

- **Waste from residues/unused products**: Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
- **Contaminated packaging**: Do not reuse empty containers.

## 14. TRANSPORT INFORMATION

### U.S. DOT

- Not regulated

### TDG

- Not regulated

### IATA

- Not regulated

### IMDG

- Not regulated

### Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies. If the item is part of a reagent set or kit the classification would change to the following: UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III. If the item is not regulated, the Chemical Kit classification does not apply.

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## 15. REGULATORY INFORMATION

### National Inventories

- **TSCA**: Complies
- **DSL/NDSL**: Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

### International Inventories

- **EINECS/ELINCS**: Complies
- **ENCS**: Complies
- **IECSC**: Complies
- **KECL**: Does not comply

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EN / AGHS  
Page 11 / 13
Product Code(s) 2518025
Issue Date 30-05-2018
Version 3.2
Product Name Ozone Reagent, High Range 0 - 1.50 mg/l O₃
Revision Date 30-May-2018
Page 12 / 13

PICCS Complies
TCSI Complies
AICS Complies
NZIoC Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substances Inventory
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard Yes
Chronic Health Hazard No
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

U.S. EPA Label Information

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

Special Comments
None
Additional information

Global Automotive Declarable Substance List (GADSL)
Not applicable

NFPA and HMIS Classifications

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<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and Chemical Properties</th>
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<th>Health hazards</th>
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</table>

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH    Immediately Dangerous to Life or Health
ACGIH        ACGIH (American Conference of Governmental Industrial Hygienists)
NDF          no data

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA        TWA (time-weighted average)
MAC        Maximum Allowable Concentration
X          Listed
STE       STEL (Short Term Exposure Limit)
Ceiling   Ceiling Limit Value
Vacated   These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.

SKN*       Skin designation
RSP+       Respiratory sensitization
C          Carcinogen
M          mutagen
SKN+       Skin sensitization
**         Hazard Designation
R          Reproductive toxicant

Prepared By    Hach Product Compliance Department
Issue Date     30-05-2018
Revision Date  30-May-2018
Revision Note  None

Disclaimer

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet