1. IDENTIFICATION

Product identifier
Product Name Molybdenum 2 Reagent

Other means of identification
Product Code(s) 2352549

Safety data sheet number M00342

UN/ID no UN3082

Recommended use of the chemical and restrictions on use.
Recommended Use Determination of molybdenum.
Uses advised against Consumer use.
Restrictions on use For Laboratory Use Only.

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

2. HAZARDS IDENTIFICATION

Classification

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

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Hazards not otherwise classified (HNOC)
Not applicable

Label elements

Signal word Warning

![Safety Symbols]
Hazard statements
H319 - Causes serious eye irritation
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements
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
P273 - Avoid release to the environment
P391 - Collect spillage
P501 - Dispose of contents/container to an approved waste disposal plant

Other Hazards Known
Harmful to aquatic life

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance
Not applicable

Mixture
Chemical Family Mixture.
Chemical nature Organic solvents and additives, aqueous solution.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Percent Range</th>
<th>HMRIC #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-1-Hexadecanaminium, N,N,N-trimethyl-, bromide</td>
<td>9036-19-5</td>
<td>1 - 5%</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.

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 Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

Self-protection of the first aider Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

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
This material will not burn.

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

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
Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

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

Methods for containment
Prevent further leakage or spillage if safe to do so.

Methods for cleaning up
Pick up and transfer to properly labeled containers.

Prevention of secondary hazards
Clean contaminated objects and areas thoroughly observing environmental regulations.

Reference to other sections
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.

Conditions for safe storage, including any incompatibilities

Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

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.

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>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>aqueous solution</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>colorless</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Molecular weight</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>6.5</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>1 °C / 33.8 °F</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>98 °C / 208.4 °F</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>0.71 (water = 1)</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor density (air = 1)</td>
<td>0.62 (air = 1)</td>
<td></td>
</tr>
<tr>
<td>Specific gravity (water = 1 / air = 1)</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient (n-octanol/water)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Soil Organic Carbon-Water Partition</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>
Product Code(s) 2352549
Product Name Molybdenum 2 Reagent
Issue Date 28-Jan-2019
Revision Date 28-Jan-2019
Version 6.1

Coefficient
Autoignition temperature No data available
Decomposition temperature No data available
Dynamic viscosity No data available
Kinematic viscosity No data available

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>

Other Information

Metal Corrosivity

Steel Corrosion Rate 0.23 mm/yr / 0.01 in/yr
Aluminum Corrosion Rate 0.03 mm/yr / 0 in/yr

Volatile Organic Compounds (VOC) Content

<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>Poly(oxy-1,2-ethanediyl), alpha-{{1,1,3,3-tetramethylbutyl}phenyl}-omega-hydroxy-</td>
<td>9036-19-5</td>
<td>Not applicable</td>
<td>-</td>
</tr>
<tr>
<td>1-Hexadecanaminium, N,N,N-trimethyl-, bromide</td>
<td>57-09-0</td>
<td>No data available</td>
<td>-</td>
</tr>
</tbody>
</table>

Explosive properties

Upper explosion limit Not applicable
Lower explosion limit Not applicable

Flammable properties

Flash point No data available

Flammability Limit in Air

Upper flammability limit No data available
Lower flammability limit No data available

Oxidizing properties No data available.

Bulk density Not applicable
10. STABILITY AND REACTIVITY

Reactivity
Not applicable.

Chemical stability
Stable under normal conditions.

Explosion data
   Sensitivity to Mechanical Impact: None.
   Sensitivity to Static Discharge: None.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization
Hazardous polymerization does not occur.

Conditions to avoid
None known based on information supplied.

Incompatible materials
Strong oxidizing agents, strong acids, and strong bases.

Hazardous Decomposition Products
Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

   Inhalation       May cause irritation of respiratory tract.
   Eye contact      Causes serious eye irritation. May cause redness, itching, and pain.
   Skin contact     May cause irritation. Prolonged contact may cause redness and irritation.
   Ingestion        Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms
May cause redness and tearing of the eyes.

Acute toxicity
Based on available data, the classification criteria are not met

Product Acute Toxicity Data
No data available.

Ingredient Acute Toxicity Data
Test data reported below.

<table>
<thead>
<tr>
<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>Poly(oxy-1,2-ethanediyl), alpha-[(1,1,3,3-tetramethylbutyl)phenyl]-omega-hydroxy-(1-5%)</td>
<td>Rat LD50</td>
<td>1700 mg/kg</td>
<td>None reported</td>
<td>None reported</td>
<td>Japan National Institute of Technology and Evaluation (NITE)</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>ATEmix (oral)</th>
<th>68,567.00 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATEmix (dermal)</td>
<td>No information available</td>
</tr>
<tr>
<td>ATEmix (inhalation-dust/mist)</td>
<td>No information available</td>
</tr>
<tr>
<td>ATEmix (inhalation-vapor)</td>
<td>No information available</td>
</tr>
<tr>
<td>ATEmix (inhalation-gas)</td>
<td>No information available</td>
</tr>
</tbody>
</table>

### Skin corrosion/irritation

May cause skin irritation.

### Product Skin Corrosion/Irritation Data

No data available.

### Ingredient Skin Corrosion/Irritation Data

No data available.

### Chemical name

<table>
<thead>
<tr>
<th>Chemical name</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>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega.-hydroxy-(1 - 5%)</td>
<td>Existing human experience</td>
<td>Human</td>
<td>None reported</td>
<td>None reported</td>
<td>Not corrosive or irritating to skin</td>
<td>Vendor SDS</td>
</tr>
<tr>
<td>1-Hexadecanaminium, N,N,N-trimethyl-, bromide (&lt;1%)</td>
<td>Patch test</td>
<td>Rabbit</td>
<td>500 mg</td>
<td>None reported</td>
<td>Skin irritant</td>
<td>ECHA (The European Chemicals Agency)</td>
</tr>
</tbody>
</table>

### Serious eye damage/irritation

Classification based on data available for ingredients. Irritating to eyes.

### Product Serious Eye Damage/Eye Irritation Data

No data available.

### Ingredient Eye Damage/Eye Irritation Data

No data available.
Respiratory or skin sensitization
Based on available data, the classification criteria are not met.

Product Sensitization Data
No data available.

Ingredient Sensitization Data
No data available.

STOT - single exposure
Based on available data, the classification criteria are not met.

Product Specific Target Organ Toxicity Single Exposure Data
No data available.

Ingredient Specific Target Organ Toxicity Single Exposure Data
No data available.

STOT - repeated exposure
Based on available data, the classification criteria are not met.

Product Specific Target Organ Toxicity Repeat Dose Data
No data available.

Ingredient Specific Target Organ Toxicity Repeat Exposure Data
No data available.

Carcinogenicity
Based on available data, the classification criteria are not met.

Product Carcinogenicity Data
No data available.

Ingredient Carcinogenicity Data
No data available.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-{(1,1,3,3-tetramethylbutyl)phenyl}-omega.-hydroxy</td>
<td>9036-19-5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1-Hexadecanaminium, N,N,N-trimethyl-, bromide</td>
<td>57-09-0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</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

Germ cell mutagenicity
Based on available data, the classification criteria are not met.
Product Germ Cell Mutagenicity *invitro* Data
No data available.

**Ingredient Germ Cell Mutagenicity *invitro* Data**
No data available.

| Chemical name | Test           | Cell Strain    | Reported dose | Exposure time | Results                              | Key literature references and sources for data |
|---------------|----------------|----------------|---------------|--------------|--------------------------------------|-------------------------------------------------
| Poly(oxy-1,2-ethanediyl), \(\alpha\)-[(1,1,3,3-tetramethylbutyl)phenyl]-omega-hydroxy- (1 - 5%) CAS#: 9036-19-5 | DNA inhibition | Human lymphocyte | 5 mg/L | None reported | Positive test result for mutagenicity | RTECS (Registry of Toxic Effects of Chemical Substances) |

Product Germ Cell Mutagenicity *invivo* Data
No data available.

**Ingredient Germ Cell Mutagenicity *invivo* Data**
No data available.

| Chemical name | Test          | Species | Reported dose | Exposure time | Results                              | Key literature references and sources for data |
|---------------|---------------|---------|---------------|--------------|--------------------------------------|-------------------------------------------------
| Poly(oxy-1,2-ethanediyl), \(\alpha\)-[(1,1,3,3-tetramethylbutyl)phenyl]-omega-hydroxy- (1 - 5%) CAS#: 9036-19-5 | None reported | Rat | 10200 mg/kg | None reported | Positive test result for mutagenicity | Vendor SDS |

Reproductive Toxicity
Based on available data, the classification criteria are not met.

**Product Reproductive Toxicity Data**
No data available.

**Ingredient Reproductive Toxicity Data**
No data available.

Aspiration hazard
Based on available data, the classification criteria are not met.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**
Toxic to aquatic life with long lasting effects.

**Unknown aquatic toxicity**
0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

**Product Ecological Data**

**Aquatic Acute Toxicity**
No data available.

**Aquatic Chronic Toxicity**
No data available.

**Ingredient Ecological Data**
Aquatic Acute Toxicity
No data available.

<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>Poly(oxy-1,2-ethanediyl), \alpha-{(1,1,3,3-tetramethylbutyl)phenyl}-\omega-hydroxy- (1-5%) CAS#: 9036-19-5</td>
<td>96 hours</td>
<td>Lepomis macrochirus</td>
<td>LC50</td>
<td>&gt;= 10 mg/L</td>
<td>Vendor SDS</td>
</tr>
<tr>
<td>1-Hexadecanaminium, N,N,N-trimethyl-, bromide (&lt;1%) CAS#: 57-09-0</td>
<td>96 hours</td>
<td>Danio rerio</td>
<td>LC50</td>
<td>0.3 mg/L</td>
<td>PEEN (Pan European Ecological Network)</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), \alpha-{(1,1,3,3-tetramethylbutyl)phenyl}-\omega-hydroxy- (1-5%) CAS#: 9036-19-5</td>
<td>48 Hours</td>
<td>Daphnia magna</td>
<td>EC50</td>
<td>&gt;= 18 mg/L</td>
<td>ERMA (New Zealand Environmental Risk Management Authority)</td>
</tr>
<tr>
<td>1-Hexadecanaminium, N,N,N-trimethyl-, bromide (&lt;1%) CAS#: 57-09-0</td>
<td>48 Hours</td>
<td>Daphnia magna</td>
<td>EC50</td>
<td>0.03 mg/L</td>
<td>PEEN (Pan European Ecological Network)</td>
</tr>
<tr>
<td>Poly(oxy-1,2-ethanediyl), \alpha-{(1,1,3,3-tetramethylbutyl)phenyl}-\omega-hydroxy- (1-5%) CAS#: 9036-19-5</td>
<td>96 hours</td>
<td>Selenastrum sp.</td>
<td>EC50</td>
<td>0.21 mg/L</td>
<td>Vendor SDS</td>
</tr>
<tr>
<td>1-Hexadecanaminium, N,N,N-trimethyl-, bromide (&lt;1%) CAS#: 57-09-0</td>
<td>96 hours</td>
<td>Microcystis aeruginosa</td>
<td>EC50</td>
<td>0.06 mg/L</td>
<td>PEEN (Pan European Ecological Network)</td>
</tr>
</tbody>
</table>

Aquatic Chronic Toxicity
No data available.

<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>Poly(oxy-1,2-ethanediyl), \alpha-{(1,1,3,3-tetramethylbutyl)phenyl}-\omega-hydroxy- (1-5%) CAS#: 9036-19-5</td>
<td>7 days</td>
<td>Oncorhynchus mykiss</td>
<td>NOEC</td>
<td>0.004 mg/L</td>
<td>EPA (United States Environmental Protection Agency)</td>
</tr>
</tbody>
</table>

Persistence and degradability
Product Code(s) 2352549
Issue Date 28-Jan-2019
Revision Date 28-Jan-2019
Version 6.1

Product Name Molybdenum 2 Reagent

Product Biodegradability Data
No data available.

Bioaccumulation

Product Bioaccumulation Data
No data available.

Partition Coefficient (n-octanol/water)  No data available

Mobility

Soil Organic Carbon-Water Partition Coefficient  No data available

Other adverse effects
Contains a substance with an endocrine-disrupting potential.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EU - Endocrine Disrupters Candidate List</th>
<th>EU - Endocrine Disruptors - Evaluated Substances</th>
<th>Endocrine disrupting potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-(1,1,3,3-tetramethylbutyl)phenyl-.omega..-hydroxy-(1 - 5%)</td>
<td>Group III Chemical</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CAS#: 9036-19-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.
US EPA Waste Number Not applicable

Special instructions for disposal If permitted by regulation. Dilute to 3 to 5 times the volume with cold water. Open cold water tap completely, slowly pour the material to the drain. Allow cold water to run for 5 minutes to completely flush the system. Dispose of material in an E.P.A. approved hazardous waste facility.

14. TRANSPORT INFORMATION

U.S. DOT
UN/ID no UN3082
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
DOT Technical Name Octylphenol ethoxylate, 1-Hexadecanaminium, N,N,N-trimethyl-, bromide
Hazard Class 9
Packing Group III
Emergency Response Guide Number 171

TDG
UN/ID no UN3082
Proper shipping name Environmentally hazardous substance, liquid, n.o.s.
TDG Technical Name Octylphenol ethoxylate, 1-Hexadecanaminium, N,N,N-trimethyl-, bromide
Hazard Class 9
Packing Group III
**Product Code(s)** 2352549

**Product Name** Molybdenum 2 Reagent

**Issue Date** 28-Jan-2019

**Revision Date** 28-Jan-2019

**Version** 6.1

**Page** 12 / 14

**Description** UN3082, Environmentally hazardous substance, liquid, n.o.s. (Octylphenol ethoxylate, 1-Hexadecanaminium, N,N,N-trimethyl-, bromide), 9, III

**IATA**
- **UN/ID no**: UN3082
- **Proper shipping name**: Environmentally hazardous substance, liquid, n.o.s.
- **IATA Technical Name**: Octylphenol ethoxylate, 1-Hexadecanaminium, N,N,N-trimethyl-, bromide
- **Hazard Class**: 9
- **Packing Group**: III
- **ERG Code**: 9L
- **Special precautions for user**: A97, A158
- **Description**: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Octylphenol ethoxylate, 1-Hexadecanaminium, N,N,N-trimethyl-, bromide), 9, III

**IMDG**
- **UN/ID no**: UN3082
- **Proper shipping name**: Environmentally hazardous substance, liquid, n.o.s.
- **IMDG Technical Name**: Octylphenol ethoxylate, 1-Hexadecanaminium, N,N,N-trimethyl-, bromide
- **Hazard Class**: 9
- **Packing Group**: III
- **EmS-No**: F-A, S-F
- **Special precautions for user**: 274, 335
- **Marine pollutant**: This material meets the definition of a marine pollutant
- **Description**: UN3082, Environmentally hazardous substance, liquid, n.o.s. (Octylphenol ethoxylate, 1-Hexadecanaminium, N,N,N-trimethyl-, bromide), 9, III, Marine Pollutant

**Note:**
No special precautions necessary.

**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.

### 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
- **IECS**: Complies
- **KECL**: Complies
- **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
  **IECS** - 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

**IMERC**: Not applicable

**U.S. State Right-to-Know Regulations**
This product does not contain any substances regulated by state right-to-know regulations.

**U.S. EPA Label Information**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>FIFRA</th>
<th>FDA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega-.hydroxy-</td>
<td>180.0940</td>
<td>-</td>
</tr>
<tr>
<td>1-Hexadecanaminium, N,N,N-trimethyl-, bromide</td>
<td>180.0519</td>
<td>-</td>
</tr>
</tbody>
</table>

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

**Special Comments**
None

**Additional information**

Global Automotive Declarable Substance List (GADSL)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Global Automotive Declarable Substance List Classifications</th>
<th>Global Automotive Declarable Substance List Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(oxy-1,2-ethanediyl), .alpha.-[(1,1,3,3-tetramethylbutyl)phenyl]-.omega-.hydroxy-</td>
<td>Declarable Substance (LR)</td>
<td>0.1 %</td>
</tr>
</tbody>
</table>

EN / AGHS
NFPA and HMIS Classifications

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Instability</th>
<th>Physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</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
- **STEL** 
  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
- **SKN+** 
  Skin sensitization
- **RSP+** 
  Respiratory sensitization
- **R** 
  Reproductive toxicant
- **C** 
  Carcinogen
- **M** 
  mutagen

Prepared By: Hach Product Compliance Department

Issue Date: 28-Jan-2019

Revision Date: 28-Jan-2019

Revision Note: SDS sections updated 2

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