SAFETY DATA SHEET

1. Identification

Product identifier: ONYXIDE 200 PRESERVATIVE

Other means of identification

- **Product code**: 3312
- **Recommended use**: Biocide
- **Recommended restrictions**: For industrial use only.

Manufacturer/Importer/Supplier/Distributor information

- **Manufacturer**: Stepan Company
- **Address**: 22 West Frontage Road, Northfield, IL 60093, USA
- **Telephone**: General 1-847-446-7500
- **Emergency phone number**: Medical 1-800-228-5635, Chemtrec 1-800-424-9300, Chemtrec Int'l +1 703-527-3887
- **E-mail**: Not available.

2. Hazard(s) identification

- **Physical hazards**: Not classified.
- **Health hazards**: Acute toxicity, oral - Category 4, Acute toxicity, inhalation - Category 2, Skin corrosion/irritation - Category 2, Serious eye damage/eye irritation - Category 2A, Sensitization, skin - Category 1, Specific target organ toxicity, single exposure - Category 2, Hazardous to the aquatic environment, acute hazard - Category 3
- **Environmental hazards**: Not classified.
- **OSHA defined hazards**: Not classified.

Label elements

- **Signal word**: Danger
- **Hazard statement**: Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Fatal if inhaled. May cause damage to organs. Harmful to aquatic life.
- **Precautionary statement**
  - **Prevention**: Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves. Wear eye/face protection. Wear respiratory protection.
  - **Response**: If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. Specific treatment is urgent (see this label). If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
  - **Storage**: Store in a well-ventilated place. Keep container tightly closed. Store locked up.
  - **Disposal**: Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information Contact with strong oxidizers may cause fire or explosion.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,3,5-Triazine-1,3,5(2H,4H,6H)-triathanol</td>
<td></td>
<td>4719-04-4</td>
<td>78.5</td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td>7732-18-5</td>
<td>21.5</td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Take off contaminated clothing and wash before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Do not use mouth-to-mouth method if victim ingested the substance. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause an allergic skin reaction. Dermatitis. Rash. May cause redness and pain.

Indication of immediate medical attention and special treatment needed If the product is ingested, probable mucosal damage may contraindicate the use of gastric lavage. Treat the affected person appropriately. Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards Contact with strong oxidizers may cause fire or explosion.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not breathe vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up

This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent product from entering drains. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not breathe vapor. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid contact with clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL. Keep at temperature not exceeding 38°C / 100°F. Store locked up. Store in original tightly closed container. Store in a well-ventilated place.

8. Exposure controls/personal protection

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

Skin protection

Wear appropriate chemical resistant gloves.

Hand protection

Wear appropriate chemical resistant clothing.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state: Liquid.

Form: Liquid.

Color: Amber.

Odor: Not available.

Odor threshold: Not available.

pH: Not available.
Melting point/freezing point: Not available.

Initial boiling point and boiling range: > 212 °F (> 100 °C)

Flash point: > 201.0 °F (> 93.9 °C) Pensky-Martens Closed Cup

Evaporation rate: Estimated slower than ethyl ether.

Flammability (solid, gas): Not available.

Upper/lower flammability or explosive limits:
- Flammability limit - lower (%): Not available.
- Flammability limit - upper (%): Not available.
- Flammability limit - upper (%/°C): NOT DETERMINED.
- Explosive limit - lower (%): Not available.
- Explosive limit - upper (%): Not available.

Vapor pressure: Not available.

Vapor density: Estimated lighter than air.

Relative density: Not available.

Solubility(ies):
- Solubility (water): Miscible.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Viscosity: Not available.

Other information:
- Density: 9.50 lb/gal

10. Stability and reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: No dangerous reaction known under conditions of normal use.

Conditions to avoid: Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials: Strong oxidizing agents. Strong acids. Contact with strong oxidizers may cause fire or explosion.

Hazardous decomposition products: At thermal decomposition temperatures, carbon monoxide and carbon dioxide.

11. Toxicological information

Information on likely routes of exposure:
- Inhalation: Fatal if inhaled. May cause damage to organs by inhalation.
- Skin contact: Causes skin irritation. May cause an allergic skin reaction.
- Eye contact: Causes serious eye irritation.
- Ingestion: Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics: Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Skin irritation. May cause redness and pain. Dermatitis. Rash.

Information on toxicological effects:
- Acute toxicity: Fatal if inhaled. Harmful if swallowed. May cause an allergic skin reaction.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rabbit</td>
<td>&gt; 2000 mg/kg</td>
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</table>

Material name: ONYXIDE 200 PRESERVATIVE
Material ID: 1844  Product code: 3312  Version #: 07  Revision date: 04-01-2019  Print date: 04-01-2019
### Test Results

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<thead>
<tr>
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</thead>
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<tr>
<td><strong>Inhalation</strong></td>
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<tr>
<td>LC50</td>
<td>Rat</td>
<td>0.52 - 2.08 mg/l</td>
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<tr>
<td><strong>Oral</strong></td>
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<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>1520 mg/kg</td>
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</tbody>
</table>

### Skin corrosion/irritation
- Causes skin irritation.

### Serious eye damage/eye irritation
- Causes serious eye irritation.

### Respiratory or skin sensitization
- **Respiratory sensitization**
  - Not available.
- **Skin sensitization**
  - May cause an allergic skin reaction.

### Germ cell mutagenicity
- No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

### Carcinogenicity
- This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
  - **IARC Monographs. Overall Evaluation of Carcinogenicity**
    - Not listed.
    - Not regulated.
  - **US. National Toxicology Program (NTP) Report on Carcinogens**
    - Not listed.

### Reproductive toxicity
- Not applicable.

### Specific target organ toxicity - single exposure
- May cause damage to organs.

### Specific target organ toxicity - repeated exposure
- Not applicable.

### Aspiration hazard
- Not applicable.

### 12. Ecological information

#### Ecotoxicity
- Harmful to aquatic life.

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<thead>
<tr>
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<th>Test Results</th>
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</thead>
<tbody>
<tr>
<td><strong>ONXYIDE 200 PRESERVATIVE</strong></td>
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<tr>
<td><strong>Aquatic</strong></td>
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<tr>
<td><strong>Acute</strong></td>
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<tr>
<td>Crustacea</td>
<td>EC50</td>
<td>Crustacea</td>
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<tr>
<td></td>
<td></td>
<td>26.1 mg/l, 48 hours</td>
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<tr>
<td>Fish</td>
<td>LC50</td>
<td>Fish</td>
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<tr>
<td></td>
<td></td>
<td>119 mg/l, 96 hours</td>
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</table>

### Persistence and degradability
- No data is available on the degradability of this product.

### Bioaccumulative potential
- No data available.

### Mobility in soil
- No data available.

### Other adverse effects
- No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

#### Disposal instructions
- **PESTICIDE DISPOSAL** - Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

- **CONTAINER DISPOSAL** - Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying. Triple rinse empty container with water. Then offer for recycling or reconditioning. If not available, puncture and dispose in a sanitary landfill.

#### Hazardous waste code
- The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

#### Waste from residues / unused products
- Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
14. Transport information

DOT

UN number  UN2902
UN proper shipping name Pesticides, Liquid, Toxic, N.O.S. (Hexahydro 1,3,5-Tris(2-Hydroxyethyl)-S-Triazine)
Transport hazard class(es) Class 6.1
Subsidiary risk -
Packing group II
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IATA

UN number  UN2902
UN proper shipping name Pesticides, Liquid, Toxic, N.O.S. (Hexahydro 1,3,5-Tris(2-Hydroxyethyl)-S-Triazine)
Transport hazard class(es) Class 6.1
Subsidiary risk -
Packing group II
Environmental hazards No.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number  UN2902
UN proper shipping name Pesticides, Liquid, Toxic, N.O.S. (Hexahydro 1,3,5-Tris(2-Hydroxyethyl)-S-Triazine)
Transport hazard class(es) Class 6.1
Subsidiary risk -
Packing group II
Environmental hazards No.
Marine pollutant Not available.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Environmental hazards Not available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

DOT; IATA; IMDG

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

This product is a U.S. EPA registered pesticide.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)
SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

- **Classified hazard categories**
  - Acute toxicity (any route of exposure)
  - Skin corrosion or irritation
  - Serious eye damage or eye irritation
  - Respiratory or skin sensitization
  - Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

- **Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
  Not regulated.

- **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
  Not regulated.

- **Safe Drinking Water Act (SDWA)**
  Not regulated.

FIFRA Information
This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

- **Signal word**
  DANGER

- **Hazard statement**
  Corrosive.

  Causes irreversible eye damage.
  Harmful if swallowed.
  Harmful if absorbed through skin.
  Harmful if inhaled.

  Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

US state regulations
[For informational purposes only: EUP manufacturers shall use a compliant California Proposition 65 safe harbor warning in accordance with Proposition 65 regulations. A compliant safe harbor warning is provided below. Note - the Proposition 65 precautionary word "WARNING" is inconsistent with the "DANGER" signal word required on the FIFRA label. "ATTENTION" or "NOTICE" are compliant with Proposition 65 and are acceptable in place of "WARNING" if EPA has approved that language on the product master label. ]

California Proposition 65

**WARNING:** This product can expose you to chemicals including Diethanolamine, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance
Diethanolamine (CAS 111-42-2) Listed: June 22, 2012

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
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<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory (NZIoC)</td>
<td>Yes</td>
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<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
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<tr>
<td>Taiwan</td>
<td>Taiwan Inventory (TCSI)</td>
<td>Yes</td>
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<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
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<tr>
<td>---------------------------</td>
<td>----------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
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</tbody>
</table>

*A “Yes” indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

<table>
<thead>
<tr>
<th>Issue date</th>
<th>06-20-2014</th>
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</thead>
<tbody>
<tr>
<td>Revision date</td>
<td>04-01-2019</td>
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<tr>
<td>Version #</td>
<td>07</td>
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Revision information

Transport Information: Material Transportation Information
Regulatory information: US state regulations