1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name
PROXY-CLEAN

Other means of identification
Product Code 211
UN/ID No. UN2014
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use No information available.
Uses advised against No information available

Emergency telephone number
Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

<table>
<thead>
<tr>
<th>Classification</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>Category 4</td>
</tr>
<tr>
<td>Acute toxicity - Inhalation (Dusts/Mists)</td>
<td>Category 4</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 1 Sub-category B</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 1</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
</tr>
<tr>
<td>Oxidizing liquids</td>
<td>Category 2</td>
</tr>
</tbody>
</table>

Label elements

Emergency Overview

Danger

Hazard statements
Harmful if swallowed
Harmful if inhaled
Causes severe skin burns and eye damage
May cause respiratory irritation. May cause drowsiness or dizziness
May intensify fire; oxidizer

Appearance aqueous solution
Physical state liquid
Odor Slight Pungent
Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat/sparks/open flames/hot surfaces. — No smoking
Keep/Store away from clothing/ .? /combustible materials
Take any precaution to avoid mixing with combustibles - .?

Precautionary Statements - Response
Immediately call a POISON CENTER or doctor/physician
Specific treatment (see .? on this label)
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 doctor/physician
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
Immediately call a POISON CENTER or doctor/physician
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Do NOT induce vomiting
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Other Information
• Toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>7722-84-1</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First aid measures

General advice
Immediate medical attention is required.

Eye contact
Flush immediately with water for 15 minutes. Lift upper and lower eyelids for complete rinsing. Get immediate medical attention.

Skin Contact
Flush with water for 15 minutes. Get medical attention. Remove contaminated clothing and wash before reuse.

Inhalation
Remove victim from immediate source of exposure to fresh air. If breathing is difficult, administer oxygen if available. If victim is not breathing, administer CPR. If individual experiences nausea, headache, or dizziness, get immediate medical attention.
Ingestion

Rinse mouth with water. Give water to dilute. Do not induce vomiting. Get immediate medical attention. Never give anything by mouth to a semi-comatose, comatose, convulsing or unconscious person.

Self-protection of the first aider

Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms

Inhalation of vapors is irritating to the respiratory system, may cause throat pain and cough, breathing difficulties, nausea, vomiting. Inhaled corrosive substances can lead to a toxic edema of the lungs. Repeated or prolonged exposure: Risk of sore throat, nose bleeds, chronic bronchitis. Causes severe eye irritation, redness, lachrymation, swelling of tissue, risk of serious damage to eyes. May cause permanent eye damage, blindness. Causes severe skin irritation and or burns, redness, swelling of tissue. In case of repeated contact: dry skin. Ingestion causes paleness and cyanosis of the face, severe burns of the mouth and throat, as well as danger of perforation of the esophagus and the stomach, risk of shock, excessive fluid in the mouth and nose, with risk of suffocation, risk of throat edema and suffocation, nausea, vomiting, cough, breathing difficulties, bloating of stomach, belching, risk of chemical pneumonitis and pulmonary edema.

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. Water spray may be used to keep fire exposed containers cool.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical

Oxidizer. Hydrogen peroxide itself is noncombustible. On decomposition, it releases oxygen which may support combustion or intensify a fire. Oxidizing materials may cause spontaneous ignition with combustible materials. Contact with flammables may cause fire or explosion. Risk of explosion if heated under confinement.

Explosion data

Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Evacuate nonessential personnel. Ventilate area. Wear appropriate personal protection equipment. Approach spill from upwind.

Environmental precautions

See Section 12 for additional ecological information.

Methods for containment

Completely contain spilled material with dikes or sand bags, etc.
Methods for cleaning up

If safe to do so, stop leakage. Recover as much material as possible into containers (do not use original containers) for disposal. Dilute with large quantities of water. Avoid incompatible materials. In case of contact with clothing or combustible materials, avoid product drying out by submersion in or rinsing with water. If allowed to dry out on organic materials or combustibles, ignition may result.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Do not get in eyes, on skin, or clothing. Do not breathe vapors or mists. Do not ingest. Wash thoroughly after handling. Wear protective clothing/equipment. Use with adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Operate and store in cool, well-ventilated area. Keep away from heat sources. Keep away from incompatible products. Prevent all contact with organics and combustible substances. Use equipment and containers which are compatible with the substance. Before all operations, passivate the piping circuits and vessels. Never return unused product to storage container. Containers and equipment used to handle hydrogen peroxide should be used exclusively for hydrogen peroxide. Hydrogen peroxide should not be stored in an unvented container. Keep in original container, closed. Provide containment for storage of the package. Regularly check condition and temperature of containers. Ensure adequate supply of water in the event of an accident.

Incompatible materials

Acids, bases, metals, salts of metals, reducing agents, organic materials, flammable substances.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>TWA: 1 ppm</td>
<td>TWA: 1 ppm</td>
<td>IDLH: 75 ppm</td>
</tr>
<tr>
<td>7722-84-1</td>
<td></td>
<td>TWA: 1.4 mg/m³</td>
<td>TWA: 1 ppm</td>
</tr>
<tr>
<td></td>
<td>(vacated) TWA: 1 ppm</td>
<td>(vacated) TWA: 1.4 mg/m³</td>
<td>TWA: 1.4 mg/m³</td>
</tr>
</tbody>
</table>

Appropriate engineering controls

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection

Tight sealing safety goggles. Face protection shield.

Skin and body protection

Suitable protective clothing. Natural rubber, neoprene or nitrile gloves should be worn.

Respiratory protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
211 PROXY-CLEAN

Physical state: liquid
Appearance: aqueous solution
Color: clear colorless
Odor: Slight Pungent
Odor threshold: No information available

Property | Values | Remarks • Method
--- | --- | ---
pH | 2.0 |  
Melting point/freezing point | -52 °C / -62 °F |  
Boiling point / boiling range | 115 °C / 239 °F |  
Flash point | No information available |  
Evaporation rate | No information available |  
Flammability (solid, gas) | No information available |  
Flammability Limit in Air |  
Upper flammability limit: | No information available |  
Lower flammability limit: | No information available |  
Vapor pressure | 1.2 |  
Vapor density | 1 |  
Specific Gravity | 1.2 |  
Water solubility | Soluble in water |  
Solubility in other solvents | No information available |  
Partition coefficient | No information available |  
Autoignition temperature | No information available |  
Decomposition temperature | No information available |  
Kinematic viscosity | No information available |  
Dynamic viscosity | No information available |  
Explosive properties | No information available |  
Oxidizing properties | No information available |  

Other Information

Softening point | No information available |  
Molecular weight | No information available |  
VOC Content (%) | No information available |  
Density | No information available |  
Bulk density | No information available |  

10. STABILITY AND REACTIVITY

Reactivity
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to avoid
Excessive heat and contamination of any kind.

Incompatible materials
Acids, bases, metals, salts of metals, reducing agents, organic materials, flammable substances.

Hazardous Decomposition Products
Oxygen.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information
No data available
Inhalation  May cause irritation of respiratory tract.

Eye contact  Risk of serious damage to eyes.

Skin Contact  Contact causes severe skin irritation and possible burns.

Ingestion  Harmful if swallowed.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>= 801 mg/kg (Rat)</td>
<td>= 4060 mg/kg (Rat) = 2000 mg/kg (Rabbit)</td>
<td>= 2 g/m³ (Rat) 4 h</td>
</tr>
</tbody>
</table>

**Information on toxicological effects**

**Symptoms**  No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization**  No information available.

**Germ cell mutagenicity**  No information available.

**Carcinogenicity**  No information available.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>A3</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Reproductive toxicity**  No information available.

**STOT - single exposure**  No information available.

**STOT - repeated exposure**  No information available.

**Aspiration hazard**  No information available.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document.

- ATEmix (oral) 1602 mg/kg
- ATEmix (inhalation-dust/mist) 4 mg/l

---

### 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Toxic to aquatic life with long lasting effects

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>2.5: 72 h Chlorella vulgaris mg/L EC50</td>
<td>16.4: 96 h Pimephales promelas mg/L LC50 18 - 56: 96 h Lepomis macrochirus mg/L LC50 static 10.0 - 32.0: 96 h Oncorhynchus mykiss mg/L LC50 static</td>
<td>7.7: 24 h Daphnia magna mg/L EC50 18 - 32: 48 h Daphnia magna mg/L EC50 Static</td>
</tr>
</tbody>
</table>

**Persistence and degradability**  No information available.

**Bioaccumulation**  No information available.

**Other adverse effects**  No information available

---

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**
Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>California Hazardous Waste Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>Toxic</td>
</tr>
<tr>
<td>7722-84-1</td>
<td>Corrosive</td>
</tr>
<tr>
<td></td>
<td>Ignitable</td>
</tr>
<tr>
<td></td>
<td>Reactive</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

Regulated

UN/ID No.

UN2014

Proper shipping name

Hydrogen Peroxide, Aqueous Solution

Hazard Class

5.1 (8)

Packing Group

II

15. REGULATORY INFORMATION

International Inventories

- TSCA: Complies
- DSL/NDSL: Complies
- EINECS/ELINCS: Complies
- ENCS: Does not comply
- IECSC: Complies
- KECL: Complies
- PICCS: Complies
- AICS: Complies

Legend:

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

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: Yes
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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Hazardous Substances RQs</th>
<th>CERCLA/SARA RQ</th>
<th>Reportable Quantity (RQ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>-</td>
<td>1000 lb</td>
<td>-</td>
</tr>
<tr>
<td>7722-84-1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

US State Regulations

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

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7722-84-1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

NFPA
- Health hazards: 3
- Flammability: 0
- Instability: 1
- Physical and Chemical Properties: Ox

HMIS
- Health hazards: 3
- Flammability: 0
- Physical hazards: 1
- Personal protection: X

Prepared By: lmt
Issue Date: 19-Jun-2015
Revision Date: 19-Jun-2015
Revision Note: No information available

Disclaimer
The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet