SECTION 1 IDENTIFICATION

Product Identifier

<table>
<thead>
<tr>
<th>Product name</th>
<th>Pola Day CP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms</td>
<td>Not Available</td>
</tr>
<tr>
<td>Proper shipping name</td>
<td>Urea hydrogen peroxide</td>
</tr>
<tr>
<td>Other means of identification</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Recommended use of the chemical and restrictions on use

- Relevant identified uses: To remove discoloration of teeth under the supervision of a dentist.

Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

<table>
<thead>
<tr>
<th>Registered company name</th>
<th>SDI Limited</th>
<th>SDI Brazil Indústria E Comercio Ltda</th>
<th>SDI Germany GmbH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>3-15 Brunsdon Street VIC Bayswater 3153 Australia</td>
<td>Rua Dr. Virgilio de Carvalho Pinto, 612 São Paulo CEP 05415-020 Brazil</td>
<td>Hansestrasse 85 Cologne D-51149 Germany</td>
</tr>
<tr>
<td>Telephone</td>
<td>+61 3 8727 7111 (Business Hours)</td>
<td>+55 11 3092 7100</td>
<td>+49 0 2203 9255 0</td>
</tr>
<tr>
<td>Fax</td>
<td>+61 3 8727 7222</td>
<td>+55 11 3092 7101</td>
<td>+49 0 2203 9255 200</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:info@sdi.com.au">info@sdi.com.au</a></td>
<td><a href="mailto:brasil@sdi.com.au">brasil@sdi.com.au</a></td>
<td><a href="mailto:germany@sdi.com.au">germany@sdi.com.au</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Registered company name</th>
<th>SDI (North America) Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>1279 Hamilton Parkway IL Itasca 60143 United States</td>
</tr>
<tr>
<td>Telephone</td>
<td>+1 630 361 9200 (Business hours)</td>
</tr>
<tr>
<td>Fax</td>
<td>Not Available</td>
</tr>
<tr>
<td>Website</td>
<td>Not Available</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:USA.Canada@sdi.com.au">USA.Canada@sdi.com.au</a></td>
</tr>
</tbody>
</table>

Emergency phone number

<table>
<thead>
<tr>
<th>Association / Organisation</th>
<th>SDI Limited</th>
<th>Not Available</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency telephone numbers</td>
<td>+61 3 8727 7111</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Association / Organisation</th>
<th>Not Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency telephone numbers</td>
<td>+61 3 8727 7111</td>
</tr>
</tbody>
</table>

SECTION 2 HAZARD(S) IDENTIFICATION

Classification of the substance or mixture

NFPA 704 diamond

![NFPA 704 Diamond](image)

Note: The hazard category numbers found in GHS classification in section 2 of this SDSs are NOT to be used to fill in the NFPA 704 diamond. Blue = Health Red = Fire Yellow = Reactivity White = Special (Oxidizer or water reactive substances)

| Classification | Oxidizing Liquid Category 3, Metal Corrosion Category 1, Acute Toxicity (Oral) Category 4, Serious Eye Damage Category 1 |

Continued...
Label elements

GHS label elements

| SIGNAL WORD | DANGER |

Hazard statement(s)

- H272 May intensify fire; oxidiser.
- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H318 Causes serious eye damage.

Hazard(s) not otherwise specified

Not Applicable

Precautionary statement(s)

### Prevention

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P220 Take any precaution to avoid mixing with combustibles/organic material.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P290 Keep/Store away from clothing/organic material/combustible materials.
- P34 Keep only in original container.
- P270 Do not eat, drink or smoke when using this product.

### Response

- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER or doctor/physician.
- P370+P378 In case of fire: Use water jets for extinction.
- P390 Absorb spillage to prevent material damage.
- P301+P330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P330 Rinse mouth.

### Storage

Not Applicable

### Disposal

- P501 Dispose of contents/container in accordance with local regulations.

### SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

**Substances**

See section below for composition of Mixtures

**Mixtures**

<table>
<thead>
<tr>
<th>CAS No</th>
<th>% [weight]</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>124-43-6</td>
<td>35</td>
<td>urea hydrogen peroxide</td>
</tr>
<tr>
<td>7722-84-1</td>
<td>13</td>
<td>equivalent to: hydrogen peroxide</td>
</tr>
</tbody>
</table>

The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

### SECTION 4 FIRST-AID MEASURES

**Description of first aid measures**

**Eye Contact**

- If this product comes in contact with the eyes:
  - Immediately hold eyelids apart and flush the eye continuously with running water.
  - Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
  - Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
  - Transport to hospital or doctor without delay.
  - Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

**Skin Contact**

- If skin contact occurs:
  - Immediately remove all contaminated clothing, including footwear.
  - Flush skin and hair with running water (and soap if available).
  - Seek medical attention in event of irritation.
Inhalation
- If fumes or combustion products are inhaled remove from contaminated area.
- Seek medical attention.

Ingestion
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Seek medical advice.

Most important symptoms and effects, both acute and delayed
See Section 11

Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5 FIRE-FIGHTING MEASURES

Extinguishing media
- Water spray or fog.
- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.

Special hazards arising from the substrate or mixture

Fire Incompatibility
- Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous.

Special protective equipment and precautions for fire-fighters

Fire Fighting
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water courses.
- Fight fire from a safe distance, with adequate cover.
- Extinguishers should be used only by trained personnel.
- Use water delivered as a fine spray to control fire and cool adjacent area.
- Avoid spraying water onto liquid pools.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire.
- If fire gets out of control withdraw personnel and warn against entry.
- Equipment should be thoroughly decontaminated after use.

Fire/Explosion Hazard
- Will not burn but increases intensity of fire.
- Heating may cause expansion or decomposition leading to violent rupture of containers.
- Heat affected containers remain hazardous.
- Contact with combustibles such as wood, paper, oil or finely divided metal may produce spontaneous combustion or violent decomposition.
- May emit irritating, poisonous or corrosive fumes.
- Decomposition may produce toxic fumes of; nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO2).

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Minor Spills
- Clean up all spills immediately.
- No smoking, naked lights, ignition sources.
- Avoid all contact with any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials, as ignition may result.
- Avoid breathing dust or vapours and all contact with skin and eyes.
- Control personal contact with the substance, by using protective equipment.
- Contain and absorb spill with dry sand, earth, inert material or vermiculite.
- DO NOT use sawdust as fire may result.
- Scoop up solid residues and seal in labelled drums for disposal.
- Neutralise/decontaminate area.

Major Spills
- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water courses.
- No smoking, flames or ignition sources. Increase ventilation.
- Contain spill with sand, earth or other clean, inert materials.
- NEVER USE organic absorbents such as sawdust, paper or cloth.
- Use spark-free and explosion-proof equipment.
- Collect any recoverable product into labelled containers for possible recycling.
- Avoid contamination with organic matter to prevent subsequent fire and explosion.
- DO NOT mix fresh with recovered material.
- Collect residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- Decontaminate equipment and launder all protective clothing before storage and re-use.
- If contamination of drains or waterways occurs advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE
Precautions for safe handling

- Avoid personal contact and inhalation of dust, mist or vapours.
- Provide adequate ventilation.
- Always wear protective equipment and wash off any spillage from clothing.
- Keep material away from light, heat, flammables or combustibles.
- Keep cool, dry and away from incompatible materials.
- Avoid physical damage to containers.
- DO NOT repack or return unused portions to original containers. Withdraw only sufficient amounts for immediate use.
- Use only minimum quantity required.
- Avoid using solutions of peroxides in volatile solvents. Solvent evaporation should be controlled to avoid dangerous concentration of the peroxide.
- Do NOT allow peroxides to contact iron or compounds of iron, cobalt, or copper, metal oxide salts, acids or bases.
- Do NOT use metal spatulas to handle peroxides.
- Do NOT use glass containers with screw cap lids or glass stoppers.
- Store peroxides at the lowest possible temperature, consistent with their solubility and freezing point.
- CAUTION: Do NOT store liquids or solutions of peroxides at a temperature below that at which the peroxide freezes or precipitates. Peroxides in this form are extremely shock and heat-sensitive. Refrigerated storage of peroxides must ONLY be in explosion-proof units.
- The hazards and consequences of fires and explosions during synthesis and use of peroxides is widely recognised; spontaneous or induced decomposition may culminate in a variety of ways, ranging from moderate gassing to spontaneous ignition or explosion. The heat released from spontaneous decomposition of an energy-rich compound causes a rise in the surrounding temperature; the temperature will rise until thermal balance is established or until the material heats to decomposition.
- The most effective means for minimising the consequences of an accident is to limit quantities to a practical minimum. Even gram-scale explosions can be serious. Once ignited the burning of peroxides cannot be controlled and the area should be evacuated.
- Unless there is compelling reason to do otherwise, peroxide concentration should be limited to 1% (or less with vigorous reactants). Peroxide concentration is rarely as high as 1% in the reaction mixture of polymerisation or other free-radical reactions,
- Peroxides should be added slowly and cautiously to the reaction medium. This should be completed prior to heating and with good agitation.
- Addition of peroxide to the hot monomer is extremely dangerous. A violent reaction (e.g., fire or explosion) can result from inadvertent mixing of promoters (frequently used with peroxides in polymerisation systems) with full-strength peroxide
- Organic peroxides are very sensitive to contamination (especially heavy-metal compounds, metal oxide salts, alkaline materials including amines, strong acids, and many varieties of dust and dirt). This can initiate rapid, uncontrolled decomposition of peroxides and possible generation of intense heat, fire or explosion. The consequences of accidental contamination from returning withdrawn material to the storage container can be disastrous.
- When handling NEVER smoke, eat or drink.
- Always wash hands with soap and water after handling.
- Use only good occupational work practice.
- Observe manufacturer’s storage and handling recommendations contained within this SDS.

Other information

- Do not store in direct sunlight.
- Store between 2 and 8 deg C.

Conditions for safe storage, including any incompatibilities

- Suitable container: DO NOT repack. Use containers supplied by manufacturer only.
- Storage incompatibility: Avoid strong bases.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

### OCCUPATIONAL EXPOSURE LIMITS (OEL)

<table>
<thead>
<tr>
<th>Source</th>
<th>Ingredient</th>
<th>Material name</th>
<th>TWA</th>
<th>STEL</th>
<th>Peak</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>US OSHA Permissible Exposure Levels (PELs) - Table Z1</td>
<td>hydrogen peroxide</td>
<td>Hydrogen peroxide</td>
<td>1.4 mg/m³ / 1 ppm</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>US ACGIH Threshold Limit Values (TLV)</td>
<td>hydrogen peroxide</td>
<td>Hydrogen peroxide</td>
<td>1 ppm</td>
<td>Not Available</td>
<td>Not Available</td>
<td>TLV® Basis: Eye, URT, &amp; skin irr</td>
</tr>
<tr>
<td>US NIOSH Recommended Exposure Limits (RELs)</td>
<td>hydrogen peroxide</td>
<td>High-strength hydrogen peroxide, Hydrogen dioxide, Hydrogen peroxide (aqueous), Hydroperoxide, Peroxide</td>
<td>1.4 mg/m³ / 1 ppm</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EMERGENCY LIMITS</th>
<th>Material name</th>
<th>TEEL-1</th>
<th>TEEL-2</th>
<th>TEEL-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>urea hydrogen peroxide</td>
<td>Urea peroxide, (Urea hydrogen peroxide)</td>
<td>1.2 mg/m³</td>
<td>13 mg/m³</td>
<td>79 mg/m³</td>
</tr>
<tr>
<td>hydrogen peroxide</td>
<td>Hydrogen peroxide</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>hydrogen peroxide - 30%</td>
<td>Hydrogen peroxide - 30%</td>
<td>33 ppm</td>
<td>170 ppm</td>
<td>330 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MATERIAL DATA</th>
<th>Original IDLH</th>
<th>Revised IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>urea hydrogen peroxide</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>hydrogen peroxide</td>
<td>75 ppm</td>
<td>75 ppm (Unich) ppm</td>
</tr>
</tbody>
</table>

### Exposure controls

#### Appropriate engineering controls

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

- Process controls which involve changing the way a job activity or process is done to reduce the risk.
- Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.
- Employers may need to use multiple types of controls to prevent employee overexposure.

Continued...
Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances. Correct fit is essential to ensure adequate protection. An approved self contained breathing apparatus (SCBA) may be required in some situations. Provide adequate ventilation in warehouse or closed storage area. Air contaminants generated in the workplace possess varying “escape” velocities which, in turn, determine the “capture velocities” of fresh circulating air required to effectively remove the contaminant.

<table>
<thead>
<tr>
<th>Type of Contaminant:</th>
<th>Air Speed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>solvent, vapours, degreasing etc., evaporating from tank (in still air).</td>
<td>0.25-0.5 m/s (50-100 f/min.)</td>
</tr>
<tr>
<td>aerosols, fumes from pouring operations, intermittent container filling, low speed conveyor transfers, welding, spray drift, plating acid fumes, picking (released at low velocity into zone of active generation)</td>
<td>0.5-1 m/s (100-200 f/min.)</td>
</tr>
<tr>
<td>direct spray, spray painting in shallow booths, drum filling, conveyor loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)</td>
<td>1-2.5 m/s (200-500 f/min.)</td>
</tr>
<tr>
<td>grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).</td>
<td>2.5-10 m/s (500-2000 f/min.)</td>
</tr>
</tbody>
</table>

Within each range the appropriate value depends on:

<table>
<thead>
<tr>
<th>Lower end of the range</th>
<th>Upper end of the range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Room air currents minimal or favourable to capture</td>
<td>1: Disturbing room air currents</td>
</tr>
<tr>
<td>2: Contaminants of low toxicity or of nuisance value only.</td>
<td>2: Contaminants of high toxicity</td>
</tr>
<tr>
<td>3: Intermittent, low production.</td>
<td>3: High production, heavy use</td>
</tr>
<tr>
<td>4: Large hood or large air mass in motion</td>
<td>4: Small hood-local control only</td>
</tr>
</tbody>
</table>

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). Therefore the air speed at the extraction point should be adjusted, accordingly, after reference to distance from the contaminating source. The air velocity at the extraction fan, for example, should be a minimum of 1-2 m/s (200-400 f/min) for extraction of solvents generated in a tank 2 meters distant from the extraction point. Other mechanical considerations, producing performance deficits within the extraction apparatus, make it essential that theoretical air velocities are multiplied by factors of 10 or more when extraction systems are installed or used.

**Personal protection**

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adoration for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59; [AS/NZS 1336 or national equivalent]

**Eye and face protection**

- Wear chemical protective gloves, e.g. PVC.
- Wear safety footwear or safety gumboots, e.g. Rubber
- Rubber Gloves

**Skin protection**

See Hand protection below

**Hands/feet protection**

- Wear chemical protective gloves, e.g. PVC.
- Wear chemical protective suit, e.g. PVC Apron.
- PVC protective suit may be required if exposure severe.
- Wear safety footwear or safety gumboots, e.g. Rubber.
- Rubber Gloves

**Body protection**

See Other protection below

**Other protection**

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.
- Ensure there is ready access to a safety shower.

**Thermal hazards**

Not Available

**Respiratory protection**

- Type B Filter of sufficient capacity (AS/NZS 1716 & 1715, EN 143/2000 & 149/2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the “Exposure Standard” (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

<table>
<thead>
<tr>
<th>Required Minimum Protection Factor</th>
<th>Half-Face Respirator</th>
<th>Full-Face Respirator</th>
<th>Powered Air Respirator</th>
</tr>
</thead>
<tbody>
<tr>
<td>up to 10 x ES</td>
<td>B-AUS</td>
<td>-</td>
<td>B-PAPR-AUS / Class 1</td>
</tr>
<tr>
<td>up to 50 x ES</td>
<td>-</td>
<td>B-AUS / Class 1</td>
<td>-</td>
</tr>
<tr>
<td>up to 100 x ES</td>
<td>-</td>
<td>B-2</td>
<td>B-PAPR-2 ^</td>
</tr>
</tbody>
</table>

^: Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

| Appearance | Clear gel with spearmint odour, mixes with water. |
| Physical state | Gel |
| Relative density (Water = 1) | 1.1 |
### SECTION 10 STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Reactivity</th>
<th>See section 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td></td>
</tr>
<tr>
<td>- Unstable in the presence of incompatible materials.</td>
<td></td>
</tr>
<tr>
<td>- Product is considered stable under normal handling conditions.</td>
<td></td>
</tr>
<tr>
<td>- Prolonged exposure to heat.</td>
<td></td>
</tr>
<tr>
<td>- Hazardous polymerisation will not occur.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Possibility of hazardous reactions</th>
<th>See section 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions to avoid</td>
<td>See section 7</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>See section 7</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>See section 5</td>
</tr>
</tbody>
</table>

### SECTION 11 TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

**Inhaled**
Inhalation of vapours or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. Limited evidence or practical experience suggests that the material may produce irritation of the respiratory system, in a significant number of individuals, following inhalation. In contrast to most organs, the lung is able to respond to a chemical insult by first removing or neutralising the irritant and then repairing the damage. The repair process, which initially evolved to protect mammalian lungs from foreign matter and antigens, may however, produce further lung damage resulting in the impairment of gas exchange, the primary function of the lungs. Respiratory tract irritation often results in an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system.

**Ingestion**
Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual.

**Skin Contact**
Limited evidence exists, or practical experience predicts, that the material either produces inflammation of the skin in a substantial number of individuals following direct contact, and/or produces significant inflammation when applied to the healthy intact skin of animals, for up to four hours, such inflammation being present twenty-four hours or more after the end of the exposure period. Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). The dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to blistering (vesiculation), scaling and thickening of the epidermis. At the microscopic level there may be intercellular oedema of the spongy layer of the skin (spongiosis) and intracellular oedema of the epidermis.
Skin contact will result in rapid drying, bleaching, leading to chemical burns on prolonged contact. Open cuts, abraded or irritated skin should not be exposed to this material.

**Eye**
When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.

**Chronic**
Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Prolonged or repeated skin contact may cause drying with cracking, irritation and possible dermatitis following.

<table>
<thead>
<tr>
<th>Pola Day CP</th>
<th><strong>TOXICITY</strong></th>
<th><strong>IRRITATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>urea hydrogen peroxide</th>
<th><strong>TOXICITY</strong></th>
<th><strong>IRRITATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>hydrogen peroxide</th>
<th><strong>TOXICITY</strong></th>
<th><strong>IRRITATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>dermal (rat) LD50: 3000-5480 mg/kg</td>
<td>Nil reported</td>
<td></td>
</tr>
<tr>
<td>Inhalation (rat) LC50: 2 mg/L ±4</td>
<td>Not Available</td>
<td></td>
</tr>
</tbody>
</table>
Table: No significant acute toxicological data identified in literature search.

### Hydrogen Peroxide

**Acute Toxicity**

- Oral (rat) LD50: 75 mg/kg \(^{[1]}\)
- No subchronic oral studies identified in literature search.

**Carcinogenicity**

- A 1% solution of hydrogen peroxide (equivalent to 1900 mg/kg/day) given as the sole drinking fluid to three-month-old male mice for 7-28 days did not cause tumors.
- Reproductive Toxicity
- Developmental Toxicity
- Repeated dose reproductive toxicity studies not identified in literature search.

**Pharmacokinetics**

- Hydrogen peroxide is a normal product of metabolism. It is readily decomposed by catalase in normal cells. In experimental animals exposed to hydrogen peroxide, target organs affected include the lungs, intestine, thymus, liver, and kidney, suggesting its distribution to those sites.

**Hazardous Substances**

- Hazard increases with peroxide concentration, high concentrations contain an additive stabiliser.

**Legend**

- Data available but does not fill the criteria for classification
- Data required to make classification available
- Data not available to make classification

### Section 12 Ecological Information

**Toxicity**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Endpoint</th>
<th>Test Duration (hr)</th>
<th>Species</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
</table>

Continued...
**hydrogen peroxide**  
**Persistence and degradability**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Persistence: Water/Soil</th>
<th>Persistence: Air</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrogen peroxide</td>
<td>LOW</td>
<td>LOW</td>
</tr>
</tbody>
</table>

**Bioaccumulative potential**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Bioaccumulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrogen peroxide</td>
<td>LOW (LogKOW = -1.571)</td>
</tr>
</tbody>
</table>

**Mobility in soil**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>hydrogen peroxide</td>
<td>LOW (KOC = 14.3)</td>
</tr>
</tbody>
</table>

### SECTION 13 DISPOSAL CONSIDERATIONS

**Waste treatment methods**

- Containers may still present a chemical hazard/danger when empty.
- Return to supplier for reuse/recycling if possible.
- Otherwise:
  - If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
  - Where possible retain label warnings and SDS and observe all notices pertaining to the product.
  - **DO NOT** allow wash water from cleaning or process equipment to enter drains.
  - It may be necessary to collect all wash water for treatment before disposal.
  - In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
  - Where in doubt contact the responsible authority.
  - Consult State Land Waste Management Authority for disposal.
  - Bury residue in an authorised landfill.

### SECTION 14 TRANSPORT INFORMATION

**Labels Required**

- Marine Pollutant: NO

**Land transport (DOT)**

- **UN number**: 1511
- **Packing group**: III
- **UN proper shipping name**: Urea hydrogen peroxide
- **Environmental hazard**: Not Applicable
- **Transport hazard class(es)**: 5.1, 8
- **Special precautions for user**: A1, A7, A29, BB8, IP3, T1, TP33

**Air transport (ICAO-IATA / DGR)**

- **UN number**: 1511
- **Packing group**: III
- **UN proper shipping name**: Urea hydrogen peroxide
- **Environmental hazard**: Not Applicable

**DO NOT** discharge into sewer or waterways.
### Transport hazard class(es)

<table>
<thead>
<tr>
<th>Class(es)</th>
<th>ICAO/IATA Class</th>
<th>ICAO / IATA Subrisk</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>5.1</td>
<td>8</td>
</tr>
</tbody>
</table>

| ERG Code | 5C |

### Special precautions for user

<table>
<thead>
<tr>
<th>Special provisions</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cargo Only Packing Instructions</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Cargo Only Maximum Qty / Pack</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Passenger and Cargo Packing Instructions</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Passenger and Cargo Maximum Qty / Pack</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Passenger and Cargo Limited Quantity Packing Instructions</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Passenger and Cargo Limited Maximum Qty / Pack</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

### Sea transport (IMDG-Code / GGVSee)

<table>
<thead>
<tr>
<th>UN number</th>
<th>1511</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>UN proper shipping name</td>
<td>UREA HYDROGEN PEROXIDE</td>
</tr>
</tbody>
</table>

### Environmental hazard

| Not Applicable |

### Transport hazard class(es)

<table>
<thead>
<tr>
<th>Class(es)</th>
<th>IMDG Class</th>
<th>IMDG Subrisk</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1</td>
<td>5.1</td>
<td>8</td>
</tr>
</tbody>
</table>

### Special precautions for user

<table>
<thead>
<tr>
<th>EMS Number</th>
<th>F-A, S-Q</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Special provisions</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited Quantities</td>
<td>5 kg</td>
</tr>
</tbody>
</table>

### Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

If packed as Chemical kits the following classification may be considered if all ICAO/IATA transport requirements are met: Chemical Kit UN3316 - Class 9.

### SECTION 15 REGULATORY INFORMATION

**Safety, health and environmental regulations / legislation specific for the substance or mixture**

**UREA HYDROGEN PEROXIDE(124-43-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US NIOSH Recommended Exposure Limits (RELs)
- US OSHA Permissible Exposure Levels (PELs) - Table Z1
- US ACGIH Threshold Limit Values (TLV)
- US ACGIH Threshold Limit Values (TLV) - Carcinogens
- US - California Proposition 65
- US - Idaho - Limits for Air Contaminants
- US - Mississippi Permissible Exposure Limits (PELs)
- US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Mutagens
- US - Oregon Permissible Exposure Limits (Z-1)

**HYDROGEN PEROXIDE(7722-84-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

- International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs
- International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List
- US - Alaska Limits for Air Contaminants
- US - California Permissible Exposure Limits for Chemical Contaminants
- US - Hawaii Air Contaminant Limits
- US - Idaho - Limits for Air Contaminants
- US - Michigan Exposure Limits for Air Contaminants
- US - Minnesota Permissible Exposure Limits (PELs)
- US - New Jersey Right to Know - Special Health Hazard Substance List (SHHSL): Mutagens
- US - Oregon Permissible Exposure Limits (Z-1)
- US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants
- US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants
- US - Washington Permissible exposure limits of air contaminants
- US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants
- US SARA Section 302 Extremely Hazardous Substances
- US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory
- US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)
- US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES

**Federal Regulations**

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

### SECTION 311/312 HAZARD CATEGORIES

- Immediate (acute) health hazard: YES
- Delayed (chronic) health hazard: NO
- Fire hazard: YES
- Pressure hazard: NO
- Reactivity hazard: NO

**US. EPA CERCLA HAZARDOUS SUBSTANCES AND REPORTABLE QUANTITIES (40 CFR 302.4)**

None Reported

**State Regulations**

**US. CALIFORNIA PROPOSITION 65**
None Reported

<table>
<thead>
<tr>
<th>National Inventory</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia - AICS</td>
<td>Y</td>
</tr>
<tr>
<td>Canada - DSL</td>
<td>N (urea hydrogen peroxide)</td>
</tr>
<tr>
<td>China - IECSC</td>
<td>Y</td>
</tr>
<tr>
<td>Europe - EINEC / ELINCS / NLP</td>
<td>Y</td>
</tr>
<tr>
<td>Japan - ENCS</td>
<td>N (urea hydrogen peroxide)</td>
</tr>
<tr>
<td>Korea - KECI</td>
<td>Y</td>
</tr>
<tr>
<td>New Zealand - NZIoC</td>
<td>Y</td>
</tr>
<tr>
<td>Philippines - PICCS</td>
<td>Y</td>
</tr>
<tr>
<td>USA - TSCA</td>
<td>Y</td>
</tr>
</tbody>
</table>

Legend:

Y = All ingredients are on the inventory
N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by SDI Limited using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average
PC – STEL: Permissible Concentration-Short Term Exposure Limit
IARC: International Agency for Research on Cancer
ACGIH: American Conference of Governmental Industrial Hygienists
STEL: Short Term Exposure Limit
TEEL: Temporary Emergency Exposure Limit
IDLH: Immediately Dangerous to Life or Health Concentrations
OSF: Odour Safety Factor
NOAEL: No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index

The information contained in the Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.

Other information:

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Date of preparation/revision: 23rd September 2015

Department issuing SDS: Research and Development
Contact: Technical Director