



# Pola Day 7.5% Hydrogen Peroxide Gel

## SDI Limited

Version No: 8.1

Safety Data Sheet according to the Health and Safety at Work (Hazardous Substances) Regulations 2017

Issue Date: 10/03/2023

Print Date: 21/11/2023

L.GHS.NZL.EN

### SECTION 1 Identification of the substance / mixture and of the company / undertaking

#### Product Identifier

|                               |                                     |
|-------------------------------|-------------------------------------|
| Product name                  | Pola Day 7.5% Hydrogen Peroxide Gel |
| Chemical Name                 | Not Applicable                      |
| Synonyms                      | Not Available                       |
| Chemical formula              | Not Applicable                      |
| Other means of identification | Not Available                       |

#### Relevant identified uses of the substance or mixture and uses advised against

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

#### Details of the manufacturer or supplier of the safety data sheet

| Registered company name | SDI Limited  | SDI (North America) Inc.                            | SDI Germany GmbH                                   |
|-------------------------|--|---|--|
| Address                 | 3-15 Brunsdon Street Bayswater VIC 3153 Australia  | 1279 Hamilton Parkway Itasca IL 60143 United States | Hansestrasse 85 Cologne D-51149 Germany            |
| Telephone               | +61 3 8727 7111                                    | +1 630 361 9200                                     | +49 0 2203 9255 0                                  |
| Fax                     | +61 3 8727 7222                                    | Not Available                                       | +49 0 2203 9255 200                                |
| Website                 | <a href="http://www.sdi.com.au">www.sdi.com.au</a> | <a href="http://www.sdi.com.au">www.sdi.com.au</a>  | <a href="http://www.sdi.com.au">www.sdi.com.au</a> |
| Email                   | info@sdi.com.au                                    | USA.Canada@sdi.com.au                               | germany@sdi.com.au                                 |

|                         |   |
|-------------------------|---|
| Registered company name | SDI HOLDINGS PTY LTD DO   |
| Address                 | Rua Dr. Reinaldo Schmithausen 3141 – Cordeiros Itajaí – SC – CEP 88310-004 Brazil |
| Telephone               | +55 11 3092 7100  |
| Fax                     | Not Available   |
| Website                 | <a href="http://www.sdi.com.au/">http://www.sdi.com.au/</a>                       |
| Email                   | Brasil@sdi.com.au   |

#### Emergency telephone number

|                                   |                                   |                                     |
|-----------------------------------|-----------------------------------|-------------------------------------|
| Association / Organisation        | SDI Limited                       | CHEMWATCH EMERGENCY RESPONSE (24/7) |
| Emergency telephone numbers       | 131126 Poisons Information Centre | +64 800 700 112                     |
| Other emergency telephone numbers | +61 3 8727 7111                   | +61 3 9573 3188                     |

Once connected and if the message is not in your preferred language then please dial 01

### SECTION 2 Hazards identification

#### Classification of the substance or mixture

|                                       |   |
|---------------------------------------|---|
| Classification [1]                    | Skin Corrosion/Irritation Category 2, Serious Eye Damage/Eye Irritation Category 1  |
| Legend:                               | 1. Classification by vendor; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI |
| Determined by using GHS/HSNO criteria | 6.3A, 8.3A  |

#### Label elements

|                     |        |
|---------------------|--------|
| Hazard pictogram(s) |        |
| Signal word         | Danger |

## Pola Day 7.5% Hydrogen Peroxide Gel

## Hazard statement(s)

|      |                            |
|------|----------------------------|
| H315 | Causes skin irritation.    |
| H318 | Causes serious eye damage. |

## Precautionary statement(s) Prevention

|      |  |
|------|--|
| P280 | Wear protective gloves, protective clothing, eye protection and face protection. |
| P264 | Wash all exposed external body areas thoroughly after handling.                  |

## Precautionary statement(s) 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/doctor/physician/first aider.   |
| P302+P352      | IF ON SKIN: Wash with plenty of water.   |
| P332+P313      | If skin irritation occurs: Get medical advice/attention.   |
| P362+P364      | Take off contaminated clothing and wash it before reuse.   |

## Precautionary statement(s) Storage

Not Applicable

## Precautionary statement(s) Disposal

Not Applicable

## SECTION 3 Composition / information on ingredients

## Substances

See section below for composition of Mixtures

## Mixtures

| CAS No    | %[weight]  | Name              |
|-----------|--|-------------------|
| 7722-84-1 | 7.5  | hydrogen peroxide |
| Legend:   | 1. Classification by vendor; 2. Classification drawn from CCID EPA NZ; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L; * EU IOELVs available |                   |

## SECTION 4 First aid measures

## Description of first aid measures

|              |   |
|--------------|---|
| Eye Contact  | <p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"><li>Wash out immediately with fresh running water.</li><li>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.</li><li>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li><li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li></ul>                                      |
| Skin Contact | <p>If skin contact occurs:</p> <ul style="list-style-type: none"><li>Immediately remove all contaminated clothing, including footwear.</li><li>Flush skin and hair with running water (and soap if available).</li><li>Seek medical attention in event of irritation.</li></ul>   |
| Inhalation   | <ul style="list-style-type: none"><li>If fumes, aerosols or combustion products are inhaled remove from contaminated area.</li><li>Other measures are usually unnecessary.</li></ul>  |
| Ingestion    | <ul style="list-style-type: none"><li>If swallowed do <b>NOT</b> induce vomiting.</li><li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li><li>Observe the patient carefully.</li><li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li><li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li><li>Seek medical advice.</li></ul> |

## Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5 Firefighting 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 | None known. |
|----------------------|-------------|

## Advice for firefighters

Pola Day 7.5% Hydrogen Peroxide Gel

|                       |  |
|-----------------------|--|
| Fire Fighting         | <ul style="list-style-type: none"><li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li><li>▶ Wear breathing apparatus plus protective gloves in the event of a fire.</li><li>▶ Prevent, by any means available, spillage from entering drains or water courses.</li><li>▶ Use fire fighting procedures suitable for surrounding area.</li><li>▶ <b>DO NOT</b> approach containers suspected to be hot.</li><li>▶ Cool fire exposed containers with water spray from a protected location.</li><li>▶ If safe to do so, remove containers from path of fire.</li><li>▶ Equipment should be thoroughly decontaminated after use.</li></ul> |
| Fire/Explosion Hazard | <ul style="list-style-type: none"><li>▶ Non combustible.</li><li>▶ Not considered a significant fire risk, however containers may burn.</li></ul> May emit poisonous fumes.<br>May emit corrosive fumes.<br>Decomposes on heating and produces:<br>carbon dioxide (CO2)<br>carbon monoxide (CO)  |

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

|              |   |
|--------------|---|
| Minor Spills | <ul style="list-style-type: none"><li>▶ Clean up all spills immediately.</li><li>▶ Avoid contact with skin and eyes.</li><li>▶ Wear impervious gloves and safety goggles.</li><li>▶ Trowel up/scrape up.</li><li>▶ Place spilled material in clean, dry, sealed container.</li><li>▶ Flush spill area with water.</li></ul>   |
| Major Spills | Minor hazard. <ul style="list-style-type: none"><li>▶ Clear area of personnel.</li><li>▶ Alert Fire Brigade and tell them location and nature of hazard.</li><li>▶ Control personal contact with the substance, by using protective equipment as required.</li><li>▶ Prevent spillage from entering drains or water ways.</li><li>▶ Contain spill with sand, earth or vermiculite.</li><li>▶ Collect recoverable product into labelled containers for recycling.</li><li>▶ Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.</li><li>▶ Wash area and prevent runoff into drains or waterways.</li><li>▶ If contamination of drains or waterways occurs, advise emergency services.</li></ul> |

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

SECTION 7 Handling and storage

Precautions for safe handling

|                   |  |
|-------------------|--|
| Safe handling     | <ul style="list-style-type: none"><li>▶ Avoid all personal contact, including inhalation.</li><li>▶ Wear protective clothing when risk of exposure occurs.</li><li>▶ Use in a well-ventilated area.</li><li>▶ Prevent concentration in hollows and sumps.</li><li>▶ <b>DO NOT</b> enter confined spaces until atmosphere has been checked.</li><li>▶ <b>DO NOT</b> allow material to contact humans, exposed food or food utensils.</li><li>▶ Avoid contact with incompatible materials.</li><li>▶ <b>When handling, DO NOT eat, drink or smoke.</b></li><li>▶ Keep containers securely sealed when not in use.</li><li>▶ Avoid physical damage to containers.</li><li>▶ Always wash hands with soap and water after handling.</li><li>▶ Work clothes should be laundered separately. Launder contaminated clothing before re-use.</li><li>▶ Use good occupational work practice.</li><li>▶ Observe manufacturer's storage and handling recommendations contained within this SDS.</li><li>▶ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li></ul> |
| Other information | <b>Do not</b> store in direct sunlight.<br>Store between 5 and 25 deg. C.  |

Conditions for safe storage, including any incompatibilities

|                         |  |
|-------------------------|--|
| Suitable container      | <ul style="list-style-type: none"><li>▶ Packaging as recommended by manufacturer.</li><li>▶ Check that containers are clearly labelled and free from leaks</li></ul> |
| Storage incompatibility | <ul style="list-style-type: none"><li>▶ Avoid strong bases.</li></ul>  |

SECTION 8 Exposure controls / personal protection

Control parameters

Occupational Exposure Limits (OEL)

INGREDIENT DATA

| Source                | Ingredient        | Material name     | TWA               | STEL          | Peak          | Notes         |
|-----------------------|-------------------|-------------------|-------------------|---------------|---------------|---------------|
| New Zealand Workplace | hydrogen peroxide | Hydrogen peroxide | 1 ppm / 1.4 mg/m3 | Not Available | Not Available | Not Available |

Continued...

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| Source                   | Ingredient | Material name | TWA | STEL | Peak | Notes |
|--------------------------|------------|---------------|-----|------|------|-------|
| Exposure Standards (WES) |            |               |     |      |      |       |

## Emergency Limits

| Ingredient        | TEEL-1        | TEEL-2        | TEEL-3        |
|-------------------|---------------|---------------|---------------|
| hydrogen peroxide | Not Available | Not Available | Not Available |

| Ingredient        | Original IDLH | Revised IDLH  |
|-------------------|---------------|---------------|
| hydrogen peroxide | 75 ppm        | Not Available |

## MATERIAL DATA

## Exposure controls

|   |   |                                  |
|---|---|----------------------------------|
| Appropriate engineering controls                                      | <p>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.</p> <p>The basic types of engineering controls are:</p> <p>Process controls which involve changing the way a job activity or process is done to reduce the risk.</p> <p>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.</p> <p>Employers may need to use multiple types of controls to prevent employee overexposure.</p> <p>General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in specific circumstances. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Provide adequate ventilation in warehouse or closed storage areas. 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.</p> |                                  |
|   | Type of Contaminant:  | Air Speed:                       |
|   | solvent, vapours, degreasing etc., evaporating from tank (in still air).  | 0.25-0.5 m/s<br>(50-100 f/min)   |
|   | aerosols, fumes from pouring operations, intermittent container filling, low speed conveyer transfers, welding, spray drift, plating acid fumes, pickling (released at low velocity into zone of active generation)   | 0.5-1 m/s (100-200 f/min.)       |
|   | direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)  | 1-2.5 m/s (200-500 f/min.)       |
|   | grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).  | 2.5-10 m/s<br>(500-2000 f/min.)  |
|   | Within each range the appropriate value depends on:   |                                  |
|   | Lower end of the range  | Upper end of the range           |
|   | 1: Room air currents minimal or favourable to capture   | 1: Disturbing room air currents  |
|   | 2: Contaminants of low toxicity or of nuisance value only.  | 2: Contaminants of high toxicity |
| Individual protection measures, such as personal protective equipment | 3: Intermittent, low production.  | 3: High production, heavy use    |
|   | 4: Large hood or large air mass in motion   | 4: Small hood-local control only |
| Eye and face protection   | <p>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.</p>  |                                  |
|   |    |                                  |
| Skin protection   | <ul style="list-style-type: none"> <li>▶ Safety glasses with side shields.</li> <li>▶ Chemical goggles. [AS/NZS 1337.1, EN166 or national equivalent]</li> <li>▶ 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 adsorption 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].</li> </ul>  |                                  |
|   | See Hand protection below   |                                  |
| Hands/feet protection   | <ul style="list-style-type: none"> <li>▶ Wear chemical protective gloves, e.g. PVC.</li> <li>▶ Wear safety footwear or safety gumboots, e.g. Rubber</li> <li>▶ Rubber Gloves</li> </ul>   |                                  |
|   | See Other protection below  |                                  |
| Other protection  | <ul style="list-style-type: none"> <li>▶ Overalls.</li> <li>▶ P.V.C apron.</li> <li>▶ Barrier cream.</li> <li>▶ Skin cleansing cream.</li> <li>▶ Eye wash unit.</li> </ul>  |                                  |
|   |   |                                  |

## 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.

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Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

| Required Minimum Protection Factor | Half-Face Respirator | Full-Face Respirator | Powered Air Respirator |
|------------------------------------|----------------------|----------------------|------------------------|
| up to 10 x ES                      | B-AUS                | -                    | B-PAPR-AUS / Class 1   |
| up to 50 x ES                      | -                    | B-AUS / Class 1      | -                      |
| up to 100 x ES                     | -                    | B-2                  | B-PAPR-2 ^             |

^ - 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(SO<sub>2</sub>), G = Agricultural chemicals, K = Ammonia(NH<sub>3</sub>), 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            |
| Odour  | Not Available                                     | Partition coefficient n-octanol / water | Not Available  |
| Odour threshold                              | Not Available                                     | Auto-ignition temperature (°C)          | Not Available  |
| pH (as supplied)                             | 5.9-6.9   | Decomposition temperature (°C)          | Not Available  |
| Melting point / freezing point (°C)          | Not Available                                     | Viscosity (cSt)                         | Not Available  |
| Initial boiling point and boiling range (°C) | Not Available                                     | Molecular weight (g/mol)                | Not Applicable |
| Flash point (°C)                             | Not Available                                     | Taste                                   | Not Available  |
| Evaporation rate                             | Not Available                                     | Explosive properties                    | Not Available  |
| Flammability                                 | Not Available                                     | Oxidising properties                    | Not Available  |
| Upper Explosive Limit (%)                    | Not Available                                     | Surface Tension (dyn/cm or mN/m)        | Not Available  |
| Lower Explosive Limit (%)                    | Not Available                                     | Volatile Component (%vol)               | Not Available  |
| Vapour pressure (kPa)                        | Not Available                                     | Gas group                               | Not Available  |
| Solubility in water                          | Miscible  | pH as a solution (1%)                   | Not Available  |
| Vapour density (Air = 1)                     | Not Available                                     | VOC g/L                                 | Not Available  |

## SECTION 10 Stability and reactivity

|                                    |   |
|------------------------------------|---|
| Reactivity                         | See section 7   |
| Chemical stability                 | Product is considered stable and hazardous polymerisation will not occur. |
| Possibility of hazardous reactions | See section 7   |
| Conditions to avoid                | See section 7   |
| Incompatible materials             | See section 7   |
| Hazardous decomposition products   | See section 5   |

## SECTION 11 Toxicological information

### Information on toxicological effects

|              |  |
|--------------|--|
| Inhaled      | The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.  |
| Ingestion    | The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.   |
| Skin Contact | Open cuts, abraded or irritated skin should not be exposed to this material<br>Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.<br><br>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. |
| Eye          | Evidence exists, or practical experience predicts, that the material may cause eye irritation in a substantial number of individuals and/or may produce significant ocular lesions which are present twenty-four hours or more after instillation into the eye(s) of experimental animals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva  |

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|  |   |                   |
|--|---|-------------------|
|  | (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.  |                   |
| <b>Chronic</b>                             | Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.   |                   |
| <b>Pola Day 7.5% Hydrogen Peroxide Gel</b> | <b>TOXICITY</b>   | <b>IRRITATION</b> |
|  | Not Available   | Not Available     |
| <b>hydrogen peroxide</b>                   | <b>TOXICITY</b>   | <b>IRRITATION</b> |
|  | Dermal (rabbit) LD50: >2000 mg/kg <sup>[1]</sup>  | Not Available     |
|  | Inhalation(Mouse) LC50: 2800 mg/L4h <sup>[2]</sup>  |                   |
|  | Oral (Rat) LD50: >225 mg/kg <sup>[2]</sup>  |                   |
| <b>Legend:</b>                             | 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances |                   |

|                          |   |
|--------------------------|---|
| <b>HYDROGEN PEROXIDE</b> | <p>No significant acute toxicological data identified in literature search.</p> <p>Asthma-like symptoms may continue for months or even years after exposure to the material ends. This may be due to a non-allergic condition known as reactive airways dysfunction syndrome (RADS) which can occur after exposure to high levels of highly irritating compound. Main criteria for diagnosing RADS include the absence of previous airways disease in a non-atopic individual, with sudden onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. Other criteria for diagnosis of RADS include a reversible airflow pattern on lung function tests, moderate to severe bronchial hyperreactivity on methacholine challenge testing, and the lack of minimal lymphocytic inflammation, without eosinophilia. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. On the other hand, industrial bronchitis is a disorder that occurs as a result of exposure due to high concentrations of irritating substance (often particles) and is completely reversible after exposure ceases. The disorder is characterized by difficulty breathing, cough and mucus production.</p> <p>For hydrogen peroxide:</p> <p>Hazard increases with peroxide concentration, high concentrations contain an additive stabiliser.</p> <p><b>Pharmacokinetics</b></p> <p>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. Hydrogen peroxide has been detected in breath.</p> <ul style="list-style-type: none"> <li>Absorption: Hydrogen peroxide is decomposed in the bowel before absorption. When applied to tissue, solutions of hydrogen peroxide have poor penetrability.</li> <li>Distribution Hydrogen peroxide is produced metabolically in intact cells and tissues. It is formed by reduction of oxygen either directly in a two-electron transfer reaction, often catalysed by flavoproteins, or by an initial one-electron step to O<sub>2</sub> followed by dismutation to hydrogen peroxide.</li> <li>Hydrogen peroxide has been detected in serum and in intact liver. based on the results of toxicity studies, the lungs, intestine, thymus, liver, and kidney may be distribution sites. In rabbits and cats that died after intravenous administration of hydrogen peroxide, the lungs were pale and emphysematous. Following intraperitoneal injection of hydrogen peroxide in mice, pyknotic nuclei were induced in the intestine and thymus (IARC 1985). Degeneration of hepatic and renal tubular epithelial tissue was observed following oral administration of hydrogen peroxide to mice.</li> <li>Metabolism Glutathione peroxidase, responsible for decomposing hydrogen peroxide, is present in normal human tissues (IARC 1985). When hydrogen peroxide comes in contact with catalase, an enzyme found in blood and most tissues, it rapidly decomposes into oxygen and water.</li> <li>Excretion Hydrogen peroxide has been detected in human breath at levels ranging from 1.0+/- .5 g/L to 0.34+/-0.17 g/L.</li> </ul> <p><b>Carcinogenicity</b></p> <p>Gastric and duodenal lesions including adenomas, carcinomas, and adenocarcinomas have been observed in mice treated orally with hydrogen peroxide. Marked strain differences in the incidence of tumors have been observed. Papilloma development has been observed in mice treated by dermal application.</p> <p><b>Genotoxicity</b></p> <p>Hydrogen peroxide induced DNA damage, sister chromatid exchanges and chromosomal aberrations in mammalian cells <i>in vitro</i>. Hydrogen peroxide induced DNA damage in bacteria (<i>E. coli</i>), and was mutagenic to bacteria (<i>Salmonella typhimurium</i>) and the fungi, <i>Neurospora crassa</i> and <i>Aspergillus chevallieri</i>, but not to <i>Streptomyces griseoflavus</i>. It was not mutagenic to <i>Drosophila melanogaster</i> or to mammalian cells <i>in vitro</i>.</p> <p><b>Developmental Toxicity</b></p> <p>Malformations have been observed in chicken embryos treated with hydrogen peroxide, but experiments with mice and rats have been negative. Female rats that received 0.45% hydrogen peroxide (equivalent to approximately 630 mg/kg/day)<sup>7</sup> as the sole drinking fluid for five weeks produced normal litters when mated with untreated males.</p> <p>Doses of 1.4 to 11 mol/egg hydrogen peroxide (purity 30%) dissolved in water were injected into the airspace of groups of 20-30 white leghorn chicken eggs on day 3 of incubation.</p> <p>Embryos were examined on day 14. The incidence of embryonic deaths and malformations was dose-related and detected at doses of 2.8 mol/egg and above. The combined ED50 was 2.7 mol/egg.</p> <p><b>Reproductive Toxicity</b></p> <p>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 infertility.</p> <p>The substance is classified by IARC as Group 3:</p> <p><b>NOT</b> classifiable as to its carcinogenicity to humans.</p> <p>Evidence of carcinogenicity may be inadequate or limited in animal testing.</p> |
|--------------------------|---|

|  |   |                                 |   |
|--|---|---------------------------------|---|
| <b>Acute Toxicity</b>                    | ✗ | <b>Carcinogenicity</b>          | ✗ |
| <b>Skin Irritation/Corrosion</b>         | ✓ | <b>Reproductivity</b>           | ✗ |
| <b>Serious Eye Damage/Irritation</b>     | ✓ | <b>STOT - Single Exposure</b>   | ✗ |
| <b>Respiratory or Skin sensitisation</b> | ✗ | <b>STOT - Repeated Exposure</b> | ✗ |
| <b>Mutagenicity</b>                      | ✗ | <b>Aspiration Hazard</b>        | ✗ |

**Legend:** ✗ – Data either not available or does not fill the criteria for classification  
 ✓ – Data available to make classification

## SECTION 12 Ecological information

Continued...

Pola Day 7.5% Hydrogen Peroxide Gel

Toxicity

| Pola Day 7.5% Hydrogen Peroxide Gel  | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|--|---------------|--------------------|-------------------------------|---------------|---------------|
|  | Not Available | Not Available      | Not Available                 | Not Available | Not Available |
| hydrogen peroxide  | Endpoint      | Test Duration (hr) | Species                       | Value         | Source        |
|  | EC50          | 72h                | Algae or other aquatic plants | 0.69mg/l      | 4             |
|  | EC50          | 48h                | Crustacea                     | 2mg/l         | 2             |
|  | EC50          | 96h                | Algae or other aquatic plants | 2.27mg/l      | 4             |
|  | NOEC(ECx)     | 72h                | Algae or other aquatic plants | 0.1mg/l       | 1             |
|  | LC50          | 96h                | Fish                          | 16.4mg/l      | 2             |
| <b>Legend:</b> <i>Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data</i> |               |                    |                               |               |               |

DO NOT discharge into sewer or waterways.

Persistence and degradability

| Ingredient        | Persistence: Water/Soil | Persistence: Air |
|-------------------|-------------------------|------------------|
| hydrogen peroxide | LOW                     | LOW              |

Bioaccumulative potential

| Ingredient        | Bioaccumulation       |
|-------------------|-----------------------|
| hydrogen peroxide | LOW (LogKOW = -1.571) |

Mobility in soil

| Ingredient        | Mobility         |
|-------------------|------------------|
| hydrogen peroxide | LOW (KOC = 14.3) |

SECTION 13 Disposal considerations

Waste treatment methods

|                              |  |
|------------------------------|--|
| Product / Packaging disposal | Consult State Land Waste Management Authority for disposal.<br>Bury residue in an authorised landfill. |
|------------------------------|--|

Ensure that the hazardous substance is disposed in accordance with the Hazardous Substances (Disposal) Notice 2017

Disposal Requirements

Packages that have been in direct contact with the hazardous substance must be only disposed if the hazardous substance was appropriately removed and cleaned out from the package. The package must be disposed according to the manufacturer's directions taking into account the material it is made of. Packages which hazardous content have been appropriately treated and removed may be recycled.

The hazardous substance must only be disposed if it has been treated by a method that changed the characteristics or composition of the substance and it is no longer hazardous. Only dispose to the environment if a tolerable exposure limit has been set for the substance.

Only deposit the hazardous substance into or onto a landfill or sewage facility or incinerator, where the hazardous substance can be handled and treated appropriately.

SECTION 14 Transport information

Labels Required

|                  |                |
|------------------|----------------|
| Marine Pollutant | NO             |
| HAZCHEM          | Not Applicable |

Land transport (UN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

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

Not Applicable

14.7.2. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

|                   |               |
|-------------------|---------------|
| Product name      | Group         |
| hydrogen peroxide | Not Available |

14.7.3. Transport in bulk in accordance with the IGC Code

|                   |               |
|-------------------|---------------|
| Product name      | Ship Type     |
| hydrogen peroxide | Not Available |

## Pola Day 7.5% Hydrogen Peroxide Gel

## SECTION 15 Regulatory information

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

This substance is to be managed using the conditions specified in an applicable Group Standard

| HSR Number | Group Standard   |
|------------|--|
| HSR002521  | Animal Nutritional and Animal Care Products Group Standard 2020                                      |
| HSR002530  | Cleaning Products Subsidiary Hazard Group Standard 2020  |
| HSR002535  | Gases under Pressure Mixtures Subsidiary Hazard Group Standard 2020                                  |
| HSR002503  | Additives Process Chemicals and Raw Materials Subsidiary Hazard Group Standard 2020                  |
| HSR002606  | Lubricants Lubricant Additives Coolants and Anti freeze Agents Subsidiary Hazard Group Standard 2020 |
| HSR002612  | Metal Industry Products Subsidiary Hazard Group Standard 2020  |
| HSR002624  | N.O.S. Subsidiary Hazard Group Standard 2020   |
| HSR002638  | Photographic Chemicals Subsidiary Hazard Group Standard 2020   |
| HSR002644  | Polymers Subsidiary Hazard Group Standard 2020   |
| HSR002647  | Reagent Kits Group Standard 2020   |
| HSR002648  | Refining Catalysts Group Standard 2020   |
| HSR002653  | Solvents Subsidiary Hazard Group Standard 2020   |
| HSR002670  | Surface Coatings and Colourants Subsidiary Hazard Group Standard 2020                                |
| HSR002684  | Water Treatment Chemicals Subsidiary Hazard Group Standard 2020                                      |
| HSR100425  | Pharmaceutical Active Ingredients Group Standard 2020  |
| HSR002600  | Leather and Textile Products Subsidiary Hazard Group Standard 2020                                   |
| HSR002544  | Construction Products Subsidiary Hazard Group Standard 2020  |
| HSR002549  | Corrosion Inhibitors Subsidiary Hazard Group Standard 2020   |
| HSR002552  | Cosmetic Products Group Standard 2020  |
| HSR002558  | Dental Products Subsidiary Hazard Group Standard 2020  |
| HSR002565  | Embalming Products Subsidiary Hazard Group Standard 2020   |
| HSR002571  | Fertilisers Subsidiary Hazard Group Standard 2020  |
| HSR002573  | Fire Fighting Chemicals Group Standard 2021  |
| HSR002578  | Food Additives and Fragrance Materials Subsidiary Hazard Group Standard 2020                         |
| HSR002585  | Fuel Additives Subsidiary Hazard Group Standard 2020   |
| HSR002596  | Laboratory Chemicals and Reagent Kits Group Standard 2020  |
| HSR100580  | Tattoo and Permanent Makeup Substances Group Standard 2020   |
| HSR100757  | Veterinary Medicines Limited Pack Size Finished Dose Group Standard 2020                             |
| HSR100758  | Veterinary Medicines Non dispersive Closed System Application Group Standard 2020                    |
| HSR100759  | Veterinary Medicines Non dispersive Open System Application Group Standard 2020                      |
| HSR100592  | Agricultural Compounds Special Circumstances Group Standard 2020                                     |
| HSR100756  | Active Ingredients for Use in the Manufacture of Agricultural Compounds Group Standard 2020          |

Please refer to Section 8 of the SDS for any applicable tolerable exposure limit or Section 12 for environmental exposure limit.

## hydrogen peroxide is found on the following regulatory lists

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs - Not Classified as Carcinogenic

New Zealand Approved Hazardous Substances with controls

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals

New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data

New Zealand Inventory of Chemicals (NZIoC)

New Zealand Workplace Exposure Standards (WES)

## Additional Regulatory Information

Not Applicable

## Hazardous Substance Location

Subject to the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class   | Quantities     |
|----------------|----------------|
| Not Applicable | Not Applicable |

## Certified Handler

Subject to Part 4 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Class of substance | Quantities     |
|--------------------|----------------|
| Not Applicable     | Not Applicable |

Refer Group Standards for further information

## Maximum quantities of certain hazardous substances permitted on passenger service vehicles

Continued...

## Pola Day 7.5% Hydrogen Peroxide Gel

Subject to Regulation 13.14 of the Health and Safety at Work (Hazardous Substances) Regulations 2017.

| Hazard Class   | Gas (aggregate water capacity in mL) | Liquid (L)     | Solid (kg)     | Maximum quantity per package for each classification |
|----------------|--------------------------------------|----------------|----------------|--|
| Not Applicable | Not Applicable                       | Not Applicable | Not Applicable | Not Applicable                                       |

## Tracking Requirements

Not Applicable

## National Inventory Status

| National Inventory                             | Status  |
|--|---|
| Australia - AIC / Australia Non-Industrial Use | Yes   |
| Canada - DSL                                   | Yes   |
| Canada - NDSL                                  | No (hydrogen peroxide)  |
| China - IECSC                                  | Yes   |
| Europe - EINEC / ELINCS / NLP                  | Yes   |
| Japan - ENCS                                   | Yes   |
| Korea - KECI                                   | Yes   |
| New Zealand - NZIoC                            | Yes   |
| Philippines - PICCS                            | Yes   |
| USA - TSCA                                     | Yes   |
| Taiwan - TCSI                                  | Yes   |
| Mexico - INSQ                                  | Yes   |
| Vietnam - NCI                                  | Yes   |
| Russia - FBEPH                                 | Yes   |
| <b>Legend:</b>                                 | Yes = All CAS declared ingredients are on the inventory<br>No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration. |

## SECTION 16 Other information

|               |            |
|---------------|------------|
| Revision Date | 10/03/2023 |
| Initial Date  | 09/11/2015 |

## SDS Version Summary

| Version | Date of Update | Sections Updated  |
|---------|----------------|---|
| 7.1     | 23/12/2022     | Classification review due to GHS Revision change.                     |
| 8.1     | 10/03/2023     | Classification change due to full database hazard calculation/update. |

## 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
- ES: Exposure Standard
- 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
- DNEL: Derived No-Effect Level
- PNEC: Predicted no-effect concentration
  
- AIC: Australian Inventory of Industrial Chemicals
- DSL: Domestic Substances List
- NDSL: Non-Domestic Substances List
- IECSC: Inventory of Existing Chemical Substance in China
- EINECS: European INventory of Existing Commercial chemical Substances
- ELINCS: European List of Notified Chemical Substances
- NLP: No-Longer Polymers
- ENCS: Existing and New Chemical Substances Inventory
- KECI: Korea Existing Chemicals Inventory

**Pola Day 7.5% Hydrogen Peroxide Gel**

- ▶ NZIoC: New Zealand Inventory of Chemicals
- ▶ PICCS: Philippine Inventory of Chemicals and Chemical Substances
- ▶ TSCA: Toxic Substances Control Act
- ▶ TCSI: Taiwan Chemical Substance Inventory
- ▶ INSQ: Inventario Nacional de Sustancias Químicas
- ▶ NCI: National Chemical Inventory
- ▶ FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances

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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