1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: HYDROGEN PEROXIDE 20-60% AQUEOUS SOLUTION

Recommended use: Oxygen Bleach

Supplier: Tasman Chemicals Pty Ltd
ACN 005 072 659
Street Address: 1-7 Bell Grove
Braeside, VIC, 3195
Australia
Telephone: +61 3 9587-6777
Facsimile: +61 3 9587-5255

Emergency Telephone number: Australia 1800 334 556

2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.

Signal Word
Danger

Hazard Classifications
Oxidising Liquids - Category 2
Acute Toxicity - Dermal - Category 4
Acute Toxicity - Inhalation - Category 4
Skin Corrosion/Irritation - Category 1B
Serious Eye Damage/Irritation - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3 Respiratory Tract Irritation

Hazard Statements
H272 May intensify fire; oxidizer.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.

Prevention Precautionary Statements
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P220 Keep/Store away from clothing/combustible materials/(insert appropriate material).
P221 Take any precaution to avoid mixing with combustibles/(insert incompatible materials).
P260 Do not breathe dust, fume, gas, mist, vapours or spray.

Product Name: HYDROGEN PEROXIDE 20-60% AQUEOUS SOLUTION
Reference No: 901703,901506

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P261 Avoid breathing dust, fume, gas, mist, vapours or spray.
P264 Wash hands, face and all exposed skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statements
P101 If medical advice is needed, have product container or label at hand.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
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.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P321 Specific treatment (see product label).
P322 Specific measures (see product label).
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use (insert appropriate media) for extinction.

Storage Precautionary Statements
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal Precautionary Statement
P501 Dispose of contents/container in accordance with local, regional, national and international regulations.

Poison Schedule: S6. Poison

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

Dangerous Goods Class: 5.1
Subrisk: 8

3. COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>CHEMICAL ENTITY</th>
<th>CAS NO</th>
<th>PROPORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide (H2O2)</td>
<td>7722-84-1</td>
<td>30 - 60 % (w/v)</td>
</tr>
<tr>
<td>Ingredients determined to be non-hazardous</td>
<td>Balance</td>
<td></td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

Inhalation: Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If breathing laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a facemask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek immediate medical advice.
Skin Contact: This material, or a component of the material, can be absorbed through the skin with resultant toxic effects. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

Eye contact: Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre. If in eyes wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion: Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

Notes to physician: Treat symptomatically.

5. FIRE FIGHTING MEASURES

Hazchem Code: 2P

Suitable extinguishing media: If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

Specific hazards: May intensify fire; oxidiser.

Fire fighting further advice: On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS
Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

LARGE SPILLS
If safe to do so, shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

Dangerous Goods – Initial Emergency Response Guide No: 31

7. HANDLING AND STORAGE

Handling: Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols.

Storage: Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition.
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits:

<table>
<thead>
<tr>
<th></th>
<th>TWA ppm</th>
<th>TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
<th>NOTICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrogen peroxide</td>
<td>1</td>
<td>1.4</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

Biological Limit Values: As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering Measures: Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Use with local exhaust ventilation or while wearing appropriate respirator.

Personal Protection Equipment: RUBBER BOOTS, OVERALLS, GLOVES, APRON, FACE SHIELD.

Wear rubber boots, overalls, gloves, apron, face shield. Available information suggests that gloves made from should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Hygiene measures: Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of vapour, mist or aerosols. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES
Material Family: Aqueous Formulation
Base Units: Kilogram
Form: Clear Liquid
Colour: Colourless
Odour: Slightly Pungent, Irritating

Solubility: Miscible with water
Specific Gravity (20 °C): 1.20 @ 20 deg C
Vapour Pressure (20 °C): 18 Torr @30°C
Flash Point (°C): N App
Flammability Limits (%): N App
Autoignition Temperature (°C): N App
Melting Point/Range (°C): -52
Boiling Point/Range (°C): 114
pH: < 4

(Typical values only - consult specification sheet)
N Av = Not available, N App = Not applicable

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Conditions to avoid: Avoid exposure to heat.

Incompatible materials: Incompatible with acids, reducing agents, alkalis, heavy metals and their salts, dust, enzymes, combustible material, organic chemicals, cyanides, dirt, rust and hexavalent chromium compounds.

Hazardous decomposition products: Oxygen, which will support combustion.

Hazardous reactions: No known hazardous reactions.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Acute Effects

Inhalation: Harmful if inhaled. Material is an irritant to mucous membranes and respiratory tract.

Skin contact: Harmful in contact with skin. Can be absorbed through the skin with resultant toxic effects. Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye contact: A severe eye irritant. Corrosive to eyes: contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Acute toxicity

Inhalation: This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 10 - 20 mg/L

Skin contact: This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 10 - 20 mg/L
Ingestion: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients):
>2,000 mg/Kg

LD50 (Rat): 910 mg/kg.

Corrosion/Irritancy: Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes).
Skin: this material has been classified as a Category 1B Hazard (irreversible effects to skin).

Sensitisation: Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

Aspiration hazard: This material has been classified as non-hazardous.

Specific target organ toxicity (single exposure): This material has been classified as a Category 3 Hazard. Exposure via inhalation may result in respiratory irritation.

12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

Acute aquatic hazard: This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >1000 mg/L

Long-term aquatic hazard: This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log K<sub>ow</sub> < 4.

Ecotoxicity: No information available.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility: No information available.

13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.
14. TRANSPORT INFORMATION

ROAD AND RAIL TRANSPORT
Classified as Dangerous Goods by the criteria of the “Australian Code for the Transport of Dangerous Goods by Road & Rail” and the “New Zealand NZS5433: Transport of Dangerous Goods on Land”.

UN No: 2014
Dangerous Goods Class: 5.1
Subrisk 1: 8
Packing Group: II
Hazchem Code: 2P
Emergency Response Guide No: 31

Proper Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION

Segregation Dangerous Goods: Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), toxic gases (Class 2.3), flammable liquids (Class 3), flammable solids (Class 4.1), spontaneously combustible substances (Class 4.2), dangerous when wet substances (Class 4.3), organic peroxides (Class 5.2), radioactive substances (Class 7), corrosive substances (Class 8), fire risk substances or combustible liquids. Also note that fire risk substances including dangerous goods of Class 6 or Class 9 which are fire risk substances are incompatible with dangerous goods of Class 1, Class 5.1 and Class 5.2. Exemptions may apply.

MARINE TRANSPORT
Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

UN No: 2014
Dangerous Goods Class: 5.1
Subrisk 1: 8
Packing Group: II

Proper Shipping Name: HYDROGEN PEROXIDE, AQUEOUS SOLUTION

AIR TRANSPORT
Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

UN No: 2014
Dangerous Goods Class: 5.1
Subrisk 1: 8
Packing Group: II
15. REGULATORY INFORMATION

This material/constituent(s) is covered by the following requirements:
• The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth).
• All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Reason for issue: Format change

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

Safety Data Sheets are updated frequently. Please ensure you have a current copy.