

# MATERIAL SAFETY DATA SHEET

**PRODUCT: HYDROGEN PEROXIDE**

**SOLD AS: Spa Protector**

**Date of Issue: 19 July 2003**

## STATEMENT OF HAZARDOUS NATURE

Classified as hazardous according to criteria of WorkSafe Australia

## COMPANY DETAILS

**Company:** Premium Quality Pool Products Pty Ltd  
**Address:** 13-15 Nelson Avenue Padstow NSW 2211  
**Telephone:** (02) 9790 8777  
**Facsimile:** (02) 9790 8555

## PRODUCT IDENTIFICATION

**Product Name:** Hydrogen Peroxide 50%  
**Sub risk:** 8  
**UN Number:** 2014  
**DG Class:** 5.1  
**Packing Group:** 11  
**Hazchem Code:** 2P  
**Poisons Schedule:** S5  
**Use:** Bleaching wood pulp, textiles, used in food, wines, plasticizer and Electroplating, antiseptic.

## PHYSICAL DESCRIPTION AND PROPERTIES

**Appearance:** Clear, water like liquid with a slightly sharp odour, water miscible in all proportions.  
**Melting Point:** 52°C  
**Boiling Point:** 114°C  
**Vapour Pressure:** 10mm Hg at 20°C  
**Specific Gravity:** (gm/cc@20°C) -1.20  
**Flash Point:** Non flammable  
**Solubility in water:** Completely miscible  
**Other Properties:** Forum, Liquid **Formula:** H2O2

## COMPOSITION

<u>Name</u>	<u>CAS</u>	<u>Proportion</u>
Hydrogen peroxide	7722-84-1	50%
Water to make total of 100%		

**Other Information:** May contain <18 stabiliser

## HEALTH HAZARD INFORMATION

### Effects from Acute Exposure

- Swallowed:** Will cause severe damage to the mucus membranes. Corrosive if swallowed. May burn the mouth, gullet and stomach. If ingested, decomposition may occur in the stomach leading to the production of oxygen gas. This may cause gastric distension of the stomach. Possibility of some bleeding occurring.
- Eyes:** A severe eye irritant. Permanent eye damage may occur. May cause damage to the cornea which may affect vision if immediate first aid action is not taken. Vapour may cause irritation to eyes.
- Skin:** Contact with skin will result in severe irritation/burns. There may be delayed chemical burns and in some cases a transient whitening of the affected area may occur.
- Inhaled:** The vapour is irritating to the mucous membranes and respiratory System. High concentrations of vapour may cause bronchitis, pneumonia and pulmonary oedema. LC50 (rates – 4 hours) 2000mg/m<sup>3</sup>.

### Effects from Chronic Exposure

Long term (up to 2 years) oral administration of hydrogen peroxide in mist has been reported to product gastroduodenal inflammation, which progressed to tumour development in some cases. A similar effect could not be reproduced in rats and hydrogen peroxide is not suspected as a human carcinogen by regulatory authorities (IARC Classification A3).

Tests for mutagenic activity in bacterial or mammalian cell cultures have been inconclusive with positive results in some studies and negative result in others. Similarly tests for the foetal effects in animal species have been inconclusive with positive results in some and negative in others. Tests in animals demonstrate no reproductive toxicity.

## FIRST AID

- Ingestion:** If conscious, wash mouth thoroughly with water immediately. Give water to drink. **DO NOT** induce vomiting. Seek immediate medical attention. Poison Information Centre phone **13 11 26** Australia wide.
- Eyes:** If in eyes, hold eyes open, flush with water for at least 15 minutes and seek medical attention immediately.
- Skin:** If skin contact occurs, remove contaminated clothing immediately and wash skin with plenty of cold water. If swelling, redness, blistering or irritation occurs seek medical advice. Wash contaminated clothing before re-use.
- Inhalation:** Remove victim from exposure – avoid becoming a casualty. 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 qualified person give oxygen through a face mask. If breathing has stopped apply artificial respiration at once. In the event of cardiac arrest, apply external cardiac massage. Seek urgent medical attention.
- Advice to Doctor:** Treat symptomatically. With eye contact exclude corneal ulceration – recheck for up to one week for delayed ulceration. Refer to eye specialist. Pulmonary oedema may occur on inhalation. Ingestion may result in internal bleeding. Following ingestion gastric distension may occur from rapid oxygen release. Insertion of a gastric tube may be advisable. Avoid gastric lavage emergency upper gastrointestinal endoscopy may be indicated. Ensure skin is thoroughly irrigated to remove all traces of hydrogen peroxide solution and thus avoiding any possible reaction with locally applied medication. Such reactions might produce heat and lead to further tissue damage.

## FIRST AID FACILITIES

Eye wash and safety shower in area of use

## **PRECAUTIONS FOR USE**

### **EXPOSURE LIMITS**

Hydrogen peroxide pip 1, mg/m<sup>3</sup> 1.4, TLV/TWA 1ppm, 1.5 mg/m<sup>3</sup>, Worksafe Australia. IDLH value: 75ppm

### **ENGINEERING CONTROLS**

Maintain concentration below recommended exposure limit. Use with local exhaust ventilation or: combination particulate/gas respirator, Class B, (Inorganic vapour). Self contained breathing apparatus may be needed for prolonged periods of exposure. Consult Consolidated chemical Company for further advice. (03) 9799 7555

### **PERSONAL PROTECTION**

Avoid skin and eye contact. Wear overalls, chemical goggles, full-face shield, (protection should comply with AS/NZS 1337 and be selected and used in accordance with AS/NZS 1336. Impervious gloves, (protection should comply with ASZ161) rubber boots and rubber apron when working with hydrogen peroxide. Use with adequate ventilation. If inhalation risk exists, wear respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order (protection should comply with AS1716 and be selected in accordance with AS1715.

Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and protective equipment before re-using.

### **FLAMMABILITY**

Non flammable. The product is considered non-combustible. Its other hazardous properties should however be considered if it is involved in a fire.

### **OTHER PRECAUTIONS**

Wear Protective clothing made of chloroprene rubber, polyvinyl chloride, polyethylene etc. Keep combustible materials away from the area. Maintain all equipment in a thoroughly clean condition. To avoid contamination do not return any unused peroxide to the container. Keep away from glycerine, hydrazine, alcohol, carbon, oil and resins.

R8 - Contact with combustible material may cause fire.

R34 - Causes burns

## STORAGE AND HANDLING

### STORAGE AND TRANSPORT

Store in a cool place and out of direct sunlight. Store away from organic materials. Store away from combustible materials. Avoid sources of direct heat. Store in upright, original vented container at ambient temperature in accordance with local statutory requirements and applicable standards e.g. AS4326. In areas of moderate climate product need not be protected against sunshine. Maximum product temperature 35°C.

Concentrated product may decompose violently on contact with metals or their salts, dust or other contaminants. Contact with wood or paper may produce spontaneous combustion. Liquid will attack some plastics, rubber and coating. Decomposes very slowly at ambient temperatures to give off oxygen.

**Proper shipping name:** Hydrogen Peroxide, Aqueous Solutions

### SPILLS AND DISPOSAL

Wear protective equipment to prevent skin and eye contamination. Self contained breathing apparatus may be needed for prolonged periods of exposure. Refer to appropriate **State Waste Disposal Authority**.

Shut off all possible sources of ignition. Clear area of all unprotected personnel. For large spills notify Emergency Services. Contain using sand and earth – prevent runoff into drains and waterways. Small spills may be diluted to less than 1% as Hydrogen Peroxide and flushed to drain. Contain large spills.

### FIRE AND/OR EXPLOSION HAZARD

High when solutions are concentrated. Risk of explosion, friction fire or ignition with concentrated solutions. A powerful oxidizing agent. It can ignite combustible substances. Heating can cause expansion or decomposition leading to violent rupture of containers.

**Extinguishing Medium:** Use large amounts of water.

**Special Fire Fighting Instruction:** Fire Fighters or others exposed should wear self-contained breathing apparatus if risk of exposure to vapour or 5 of 6 products of combustion. Releases oxygen upon decomposition, assisting decomposition of other materials.

**Hazardous Decomposition or**

**By products, Hazardous Reaction:** Incompatibility: Acids, alkalis, reducing agents, oxidising agents, rust, transition metals, and their compounds (such as iron, copper, brass, bronze, cobalt, nickel, lead) as well as organic and combustible materials.

<b>CONTACT INFORMATION</b>
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**CONTACT: CHIEF EXECUTIVE OFFICER: (02) 9790 8777**

<b>DISCLAIMER</b>
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