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# **MATERIAL SAFETY DATA SHEET**

Hazardous according to criteria of Worksafe Australia

Date of Issue : 1<sup>st</sup> January 2005

# 1. IDENTIFICATION

#### General

Product Name : PUREX SPA SHOCK

Other Names : POTASSIUM PEROXYMONOSULPHATE POTASSIUM MONOPERSULPHATE

UN No. : 3260

Dangerous Goods Class : 8

Subsidiary Risk : None Allocated

Hazchem Code : 2X

Pack Group : III

EPG : 37

Poisons Schedule : N/A

Uses :

Pool shock treatment; paper repulping; laundry bleach; cleaning compounds.

## **1.1 Physical Description / Properties**

Appearance : White granular, free-flowing solid, odourless.

Formula :

Boiling Point : Decom deg C

Melting Point : Decom deg C

Vapour Pressure : Nil

Specific Gravity : 1.1 (water = 1)

Flash Point : N/A

pH : 2.3 (1% soln)

Solubility in water : 25.6 g/l (25 deg C)

Flammability Limits (as percentage volume in air)

Lower Explosion Limit : N/A

Upper Explosion Limit : N/A

## 1.2 Other Properties

Specific gravity: 1.1 - 1.4. Solubility in water: 25.6 wt% @ 20 deg C. Not volatile. pH value in 3.0% solution: 2.0.

## 1.3 Ingredients

Chemical Entity	CAS No.	Proportions (%)
POTASSIUM PEROXYMONOSULPHATE	[10058-23-8]	< 50
POTASSIUM SULPHATE	[ 7778-80-5]	< 50
POTASSIUM BISULPHATE	[ 7646-93-7]	< 25
MAGNESIUM CARBONATE	[ 546-93-0]	< 5
POTASSIUM PEROXYDISULPHATE	[ 7727-21-1]	< 4.99

# 2. HEALTH HAZARD INFORMATION

# 2.1 Health Effects - Acute

#### Swallowed

Harmful if swallowed. Effects may include gastritis and possibly progressing to necrosis or hemorrage with large overexposures.

## Eye

Eye contact may cause eye corrosion or ulceration. Severe eye damage may result if not immediately treated.

#### Skin

Skin contact with aqueous solutions or the dry powder upon contact with moisture or perspirations may cause skin burns or ulceration; temporary body hair loss may occur in contacted areas. Skin contact with the product may cause allergic skin reactions in sensitive individuals. Human patch tests with the product diluted in water at concentrations up to 150 ppm did not cause allergic skin reactions.

#### Inhaled

Inhalation may cause nose blleds and irritation of the upper respiratory passages with cougihng and discomfort.

#### 2.2 Health Effects - Chronic

None known. None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, OSHA, NTP or ACGIH as a carcinogen. Individuals with preexisting diseases of the skin or gastrointestinal tract may have increased susceptibility to the toxicity of excessive expsoures.

## 2.3 First Aid

## Swallowed

If swallowed, DO NOT induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

## Eye

Irrigate with copious amounts of water for 15 minutes. Seek medical assistance if symptoms persists.

#### Skin

Wash affected areas with copious quantites of water. In case of contact immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing.

#### Inhaled

If inhaled, immediately remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Pool Systems – Spa Shock

## First Aid Facilities

Ensure an eye bath and safety shower are available and ready for use.

## 2.5 Advice to Doctor

Treat symptomatically based on judgement of doctor and individual reactions of patient.

#### 2.6 Toxicity Data

Oral-rat LD50 = 2,000 mg/kg Inhalation-rat 4-hour LC50 = > 5mg/L Skin absorption-rabbit LD50 = > 11,000 mg/kg A blend of oxone monopersulfate and anhydrous sodium carbonate caused skin coorosion in tests on animals. Single inhalation exposures produced nonspecific effects such as weight loss and irritation. Repeated inhalation produced eye irritation and reversible corneal damage. By ingestion, the administration of large single doses produced nonspecific effects such as weight loss and irritation as well as gastric ulceration, necrosis, and haemorrhage. The compound does not produce genetic damage in bacterial cell cultures.

## 3. PRECAUTIONS FOR USE

#### 3.1 Exposure Standards

Worksafe TWA : none established (particulates : 10 mg/m3) Worksafe STEL : none established AEL (DuPont) : 1 mg/m3 - 8hr TWA TLV (ACGIH) : none established PEL (OSHA) : particulates not otherwise regulated. 15 mg/m3-8hr TWA - total dust 5 mg/m3-8hr TWA - respirable dust

## 3.2 Engineering Controls

Keep containers in a well ventilated room. Use sufficient ventilation to keep employee exposure below recommended limits.

## 3.3 Personal Protection

Wearing of the following personal protective equipment is recommended. Chemical goggles (conforming to AS1336 and AS1337). Additionally wear a face shield where the possibility exists for face contact due to splashing or spraying or material. PVC, neoprene or nitrile rubber glvoes (conforming to AS2161). Appropriate protective clothing (conforming to AS2919). Where there is potential for airbourne exposures in excess of applicable limits, wear approved respiratory protection. Respirators should comply with AS1716 or an equivalent and should be used in accordance with AS1715. Use a positive air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstance where air-purifying respirators may not provide adequate protection.

## 3.4 Flammability

Non combustible. Non flammable. Will release oxygen on heating in fire.

## SAFE HANDLING INFORMATION

Pool Systems – Spa Shock

#### 4.1 Storage / Transport

Keep container tightly closed. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material. Store in a cool dry, well ventilated area away from heat sources such as light fixtures or space heaters. Pallets of 25kg bags can be stacked. Leave open space on all sides of each pallet to provide ventilation. See local fire codes for allowablre limits. Bulk bags should be stored on pallets; if stsacked use pyramid style, no more than 2 pallets high. Closely stacked bags should not exceed 4 ft (1.2m) cude. Keep packages dry. Do not store with combustible materials.

#### 4.2 Packaging / Labelling

UN No. 3260

Class 8

Sub Risk None Allocated

Hazchem Code 2X

Pack Group III

EPG No. 37

Shipping Name CORROSIVE SOLID ACIDIC INORGANIC NOS (POT.PEROXYMONOSULFATE)

Hazard CORROSIVE

#### **Risk Phrases**

R8 Contact with combustible material may cause fire.

R34 Causes burns.

#### Safety Phrases

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible).

#### 4.3 Spills and Disposal

#### Spills

Clean up personnel should wear suitable protective clothing including respiratory protection. Prevent contamination of drains and waterways.

Pool Systems – Spa Shock

Use absorbent (soil or sand, sawdust, inert material, vermiculite). Collect and seal in properly labelled drums for disposal. Wash area down with excess water. Clean up using a shovel. Contain all spills within a bund. Sweep up. Flush area with low pressure water.

#### Disposal

If approved, flush to sewer to waste treatment plant. Large quantities should be neutralised with soda ash. Treatment, storage, transportation, and disposal of waste must be in accordance with applicable Federal, State and Local regulatory requirements.

#### 4.4 FIRE AND EXPLOSION HAZARD

#### Fire / Explosion

Does not ignite. Non combustible. Storage of large masses of this material can trap heat and lead to ignition of paper bags. Grinding or intensive mixing may cause ignition of oxidisable material present. The material is stable. The mixture of this material with compounds containing halidesor active halogens can cause release of the respective halogen if moisture is present. For example, mixture with sodium dichloroisocyanuride or with sodium chloride can cause release of chlorine gas; mixture with cyanides can cause release of hydrogen cyanide gas; and heavy metal salts such as those of cobalt, nickel, copper or manganese cause the evolution of oxygen. Polymerisation will not occur. Decomposition releases oxygen gas.

## Extinguishing Media

Fire-fighters should wear full protective clothing including self-contained breathing apparatus. Use an extinguishing media for combustible materials in the area. Avoid breathing decomposition products.

## **5 OTHER INFORMATION**

## Other Information

Avoid contaminating waterways. Aquatic toxicity: Potassium sulfate - 96hr Tlm (bluegill sunfish): 3500 mg/l. Magnesium carbonate - 96 hr LC50 (species unidentified): >1000 ppm.

## 5.1 Contact Points

Organisation	Location	Telephone	Ask For
Pool Systems	Brendale Q	07 3889 6722	Technical Officer
Poisons Information Centre	Westmead	131129	
		1800-251525	