



# MATERIAL SAFETY DATA SHEET

Lo-Chlor Chemicals

86 Meeks Rd, Marrickville

NSW 2204 Australia

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This Revision Dated: January, 2009

## SECTION 1 - IDENTIFICATION OF CHEMICAL PRODUCT AND COMPANY

<b>Substance:</b>	The major ingredient is potassium peroxymonosulfate, $\text{KHSO}_5$ [CAS 10058-23-8], commonly known as potassium monopersulfate, which is present as a component of a triple salt with the formula $2\text{KHSO}_5 \cdot \text{KHSO}_4 \cdot \text{K}_2\text{SO}_4$ [potassium hydrogen peroxymonosulfate sulfate (5:3:2:2), [CAS 70693-62-8].
<b>Trade Name:</b>	<b>Lo-Chlor Oxygen Safe Shock Plus</b>
<b>Product Code:</b>	392
<b>Product Use:</b>	Swimming pool and spa oxidiser.
<b>Creation Date:</b>	<b>May, 2004</b>
<b>Revision Date:</b>	<b>January, 2009</b>

## SECTION 2 - HAZARDS IDENTIFICATION

### Statement of Hazardous Nature

This product is classified as: Hazardous according to the criteria of ASCC Australia.

Dangerous according to the Australian Dangerous Goods (ADG) Code.

**Risk Phrases:** R34, R38, R41. Causes burns. Irritating to skin. Risk of serious damage to eyes.

**Safety Phrases:** S24, S36. Avoid contact with skin. Wear suitable protective clothing.

**SUSDP Classification:** S6

**ADG Classification:** Class 8 (CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.)

**UN Number:** 3260

## Emergency Overview

**Physical Description & colour:** White granular solid.

**Odour:** No data.

**Major Health Hazards:** causes burns, may cause serious damage to eyes, skin irritant.

## Potential Health Effects

### Inhalation

**Short term exposure:** Significant inhalation exposure is considered to be unlikely. Likely to be irritating if inhaled.

**Long Term exposure:** No data for health effects associated with long term inhalation.

### Skin Contact:

**Short term exposure:** Available data indicates that this product is not harmful. However product is a severe skin irritant. Symptoms may include extreme itchiness and reddening of contacted skin. Other symptoms such as blisters may also become evident, and may last long after exposure has ceased.

**Long Term exposure:** No data for health effects associated with long term skin exposure.

### Eye Contact:

**Short term exposure:** Exposure via eyes is considered to be unlikely. This product is corrosive to eyes. It will cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is quickly treated, permanent blindness and facial scarring is likely.

**Long Term exposure:** No data for health effects associated with long term eye exposure.

### Ingestion:

**Short term exposure:** Significant oral exposure is considered to be unlikely. However, this product is a severe oral irritant. Symptoms may include extreme pain and reddening of skin in mouth and throat. Other symptoms such as blisters may also become evident, and may last long after exposure has ceased.

**Long Term exposure:** No data for health effects associated with long term ingestion.



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## Carcinogen Status:

**ASCC:** No significant ingredient is classified as carcinogenic by ASCC.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

## SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS No	Conc,%	TWA (mg/m <sup>3</sup> )	STEL (mg/m <sup>3</sup> )
potassium peroxymonosulfate triple salt	70693-62-8	60-80	not set	not set
Other non hazardous ingredients	secret	to 100	not set	not set

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

## SECTION 4 - FIRST AID MEASURES

### General Information:

You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this MSDS with you when you call.

**Inhalation:** First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

**Skin Contact:** Quickly and gently, blot or brush away excess chemical. Wash gently and thoroughly with water (use non-abrasive soap if necessary) for 20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts). Completely decontaminate clothing, shoes and leather goods before reuse or discard. If irritation persists, repeat flushing and obtain medical advice.

**Eye Contact:** Quickly and gently, blot or brush away chemical. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this MSDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. If irritation persists, repeat flushing. Call a Poisons Information Centre or a doctor urgently.

**Ingestion:** If swallowed, rinse mouth thoroughly with water and contact a Poisons Information Centre, or call a doctor at once. Give activated charcoal if instructed.

## SECTION 5 - FIRE FIGHTING MEASURES

**Fire and Explosion Hazards:** There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. May intensify any fire it is involved in.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

**Extinguishing Media:** Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.

**Fire Fighting:** If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.

**Flash point:** Does not burn.

**Upper Flammability Limit:** Does not burn.

**Lower Flammability Limit:** Does not burn.

**Autoignition temperature:** Not applicable - does not burn.

**Flammability Class:** Does not burn.

## SECTION 6 - ACCIDENTAL RELEASE MEASURES



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**Accidental release:** In the event of a major spill, prevent spillage from entering drains or water courses. Evacuate the spill area and deny entry to unnecessary and unprotected personnel. Wear full protective chemically resistant clothing including eye/face protection, gauntlets and self contained breathing apparatus. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as a minimum, protective goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable Dust Mask. Use a P1 mask, designed for use against mechanically generated particles eg silica & asbestos. Stop leak if safe to do so, and contain spill. Because of the corrosiveness of this product, special personal care should be taken in any cleanup operation. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. Contaminated area may be neutralised by washing with weak or dilute reducing agent. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

## SECTION 7 - HANDLING AND STORAGE

**Handling:** Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this MSDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

**Storage:** This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this class of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section 10. If you keep more than 1000kg or 1000L of Corrosive Substances of Packaging Group III, you will require a license to do so. If you have any doubts, we suggest you contact your licensing authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.

## SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

The following Australian Standards will provide general advice regarding safety clothing and equipment:

Respiratory equipment: **AS/NZS 1715**, Protective Gloves: **AS 2161**, Industrial Clothing: **AS2919**, Industrial Eye Protection: **AS1336** and **AS/NZS 1337**, Occupational Protective Footwear: **AS/NZS2210**.

**ASCC Exposure Limits**                      **TWA (mg/m<sup>3</sup>)**                      **STEL (mg/m<sup>3</sup>)**

Exposure limits have not been established by ASCC for any of the significant ingredients in this product.

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

**Ventilation:** No special ventilation requirements are normally necessary for this product. However make sure that the work environment remains clean and that dusts are minimised.

**Eye Protection:** Your eyes must be completely protected from this product by splash resistant goggles with face shield. All surrounding skin areas must be covered. Emergency eye wash facilities must also be available in an area close to where this product is being used.

**Skin Protection:** It is essential that all skin areas are adequately covered by impermeable gloves, overalls, hair covering, apron and face shield. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: rubber, PVC.

**Respirator:** If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable Dust Mask.

Eyebaths or eyewash stations and safety deluge showers should be provided near to where this product is being used.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES:

**Physical Description & colour:** White granular solid.

**Odour:** No data.



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<b>Boiling Point:</b>	Not applicable.
<b>Freezing/Melting Point:</b>	Decomposes before melting.
<b>Volatiles:</b>	No specific data. Expected to be low at 100°C.
<b>Vapour Pressure:</b>	Negligible at normal ambient temperatures.
<b>Vapour Density:</b>	No data.
<b>Specific Gravity:</b>	1.1-1.3
<b>Water Solubility:</b>	Approx 256g/L
<b>pH:</b>	2 - 3 (1% solution in water)
<b>Volatility:</b>	Negligible at normal ambient temperatures.
<b>Odour Threshold:</b>	No data.
<b>Evaporation Rate:</b>	No data.
<b>Coeff Oil/water distribution:</b>	No data
<b>Autoignition temp:</b>	Not applicable - does not burn.

### SECTION 10 - STABILITY AND REACTIVITY

**Reactivity:** This product will slowly decompose under normal storage conditions. If you have any questions, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** This product should be kept in a cool place, preferably below 30°C. Containers should be kept dry. Keep isolated from combustible materials. Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

**Incompatibilities:** reducing agents, compounds containing halides or active halogens, heavy metals, readily oxidizable organic compounds.

**Fire Decomposition:** Oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. Water. potassium compounds.

**Polymerisation:** This product is unlikely to undergo polymerisation processes.

### SECTION 11 - TOXICOLOGICAL INFORMATION

**Local Effects:**

**Target Organs:** There is no data to hand indicating any particular target organs.

### Classification of Hazardous Ingredients

Ingredient

Risk Phrases

No ingredient mentioned in the HSIS database is present in this product at hazardous concentrations.

### SECTION 12 - ECOLOGICAL INFORMATION

This product degrades slowly. It will not cause ecological problems because it does not enter biological systems.

### SECTION 13 - DISPOSAL CONSIDERATIONS

**Disposal:** Containers should be emptied as completely as practical before disposal. If possible, recycle containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site. Please do NOT dispose into sewers or waterways.

### SECTION 14 - TRANSPORT INFORMATION

**ADG Code:** 3260, CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

**Hazchem Code:** 2X

**Special Provisions:** 223, 274

**Limited quantities:** ADG 7 specifies a Limited Quantity value of 5 kg for this class of product.

**Dangerous Goods Class:** Class 8, Corrosive Substances.

**Packaging Group:** III

**Packaging Method:** P002, IBC08, LP02



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Class 8 Corrosive Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances where the Toxic Substances are cyanides and the Corrosives are acids), 7 (Radioactive Substances), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Poisonous Gases), 3 (Flammable liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 6 (Toxic Substances except where the Toxic Substances are cyanides and the Corrosives are acids) and 9 (Miscellaneous Dangerous Goods).

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### SECTION 15 - REGULATORY INFORMATION

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**AICS:** All of the significant ingredients in this formulation are to be found in the public AICS Database.

The following ingredient: potassium peroxymonosulfate triple salt is mentioned in the Standard for the Uniform Scheduling of Drugs and Poisons

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### SECTION 16 - OTHER INFORMATION

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**See our web site at [www.lo-chlor.com](http://www.lo-chlor.com)**

**This MSDS contains only safety-related information. For other data see product literature.**