

### 1. IDENTIFICATION

<b>Product Name</b>	<b>Chlorinated Trisodium Phosphate</b>			
<b>Other Names</b>	Chlorinated Trisodium Phosphate; Sodium hypochlorite phosphate (Na <sub>13</sub> (ClO)(PO <sub>4</sub> ) <sub>4</sub> )			
<b>Uses</b>	DETERGENTS, STAIN REMOVER, CLEANING AND STERILISING			
<b>Chemical Family</b>	No Data Available			
<b>Chemical Formula</b>	(Na <sub>3</sub> PO <sub>4</sub> .11H <sub>2</sub> O) <sub>4</sub> .NaOCl			
<b>Chemical Name</b>	Chlorinated Trisodium Phosphate			
<b>Product Description</b>	No Data Available			
<b>Contact Information</b>	<b>Organisation</b>	<b>Location</b>	<b>Telephone</b>	<b>Ask For</b>
	Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000	MSDS Officer
		11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222	
	Poisons Information Centre	Westmead NSW	1800-251525 131126	
	Chemcall	Australia New Zealand	1800-127406 0800-243622 +64-3-3530199	
	National Poisons Centre	New Zealand	0800-764766	

### 2. HAZARD IDENTIFICATION

<b>ADG Code</b>	Non-Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).		
<b>ASCC Hazard Classification</b>	Hazardous according to the criteria of ASCC [NOHSC:1008(2004)]		
<b>Categories</b>	<b>Xi</b>	Irritant	
<b>Risk Phrases</b>	<b>R36/37/38</b>	Irritating to eyes, respiratory system and skin.	
<b>Safety Phrases</b>	<b>S22</b>	Do not breathe dust.	
	<b>S24/25</b>	Avoid contact with skin and eyes.	
	<b>S26</b>	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
	<b>S36/37/39</b>	Wear suitable protective clothing, gloves and eye/face protection.	
	<b>S46</b>	If swallowed, seek medical advice immediately and show this container or label.	
<b>HSNO Hazard Classification</b>			
<b>Poisons Schedule (Aust)</b>	5		

This Material Safety Data Sheet may not provide exhaustive guidance for all HSNO Controls assigned to this substance. The [EPA \(New Zealand\) web site](#) should be consulted for a full list of triggered controls and cited regulations.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Ingredients

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 Malaysia Kuala Lumpur



Chemical Entity	Formula	CAS Number	Proportion
Trisodium Phosphate, Chlorinated	No Data Available	11084-85-8	>99.0 %

**4. FIRST AID MEASURES**

*Description of necessary measures according to routes of exposure*

<b>Swallowed</b>	For advice, contact a Poisons Information Centre (Phone Australia 131126, New Zealand 0800 764 766) or a doctor. If swallowed, do NOT induce vomiting.
<b>Eye</b>	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. FIRST AID FACILITIES: Potable water should be available to rinse eyes or skin. Provide eye baths and safety showers.
<b>Skin</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor.
<b>Inhaled</b>	Remove from source of exposure to fresh air. Seek medical assistance if the effects persist.
<b>Advice to Doctor</b>	Treat symptomatically based on judgement of doctor and individual reactions of patient.
<b>Medical Conditions Aggravated by Exposure</b>	No information available on medical conditions aggravated by exposure to this product.

**5. FIRE FIGHTING MEASURES**

<b>Flammability Conditions</b>	The product is non-combustible
<b>Extinguishing Media</b>	Water spray, foam, carbon dioxide or dry chemical powder.
<b>Fire and Explosion Hazard</b>	The product is non-combustible; The product in sufficient quantity and reduced particle size is capable of creating a dust explosion.
<b>Hazardous Products of Combustion</b>	Hazardous fumes such as chlorine may be produced when involved in a fire. The packaging material may burn to emit noxious fumes.
<b>Special Fire Fighting Instructions</b>	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
<b>Personal Protective Equipment</b>	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves).
<b>Flash Point</b>	No Data Available
<b>Lower Explosion Limit</b>	No Data Available
<b>Upper Explosion Limit</b>	No Data Available
<b>Auto Ignition Temperature</b>	No Data Available
<b>Hazchem Code</b>	No Data Available

**6. ACCIDENTAL RELEASE MEASURES**

<b>General Response Procedure</b>	Ensure adequate ventilation, work up wind or increase ventilation. Keep spectators away - rope off the area. Avoid accidents, clean up immediately. Slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment.
<b>Clean Up Procedures</b>	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly as hazardous waste. DO NOT INCINERATE. The by-products can be hazardous.
<b>Containment</b>	Stop leak if safe to do so. Isolate the danger area. Contain the spill and prevent contamination into confined areas, drains and waterways.
<b>Decontamination</b>	Wash area down with plenty of water, flushing residues to drain, if permitted.
<b>Environmental Precautionary Measures</b>	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
<b>Evacuation Criteria</b>	Evacuate all unnecessary personnel.
<b>Personal Precautionary Measures</b>	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

**7. HANDLING AND STORAGE**

<b>Handling</b>	Keep containers closed at all times - check regularly for leaks or spills. Transport and store upright. Avoid eye contact and repeated or prolonged skin contact. Do not eat, drink or smoke in contaminated areas. Always remove contaminated clothing and wash hands before eating, drinking, smoking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Keep containers closed when not in use to ensure contamination does not occur. Check regularly for leaks. Do not combine part drums of the same product, as this may be a source of contamination. Do not mix with other chemicals, especially acids.
<b>Storage</b>	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Protect from direct sunlight and keep away from foodstuffs. This material is a Scheduled Poison S5 and must be stored, maintained and used in accordance with the relevant regulations. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
<b>Container</b>	Store in original packaging as approved by manufacturer.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<b>General</b>	No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified is 10mg/m3 (for inspirable dust) and 3mg/m3 (for respirable dust).
<b>Exposure Limits</b>	No Data Available
<b>Biological Limits</b>	No information available on biological limit values for this product.
<b>Engineering Measures</b>	Use with local exhaust ventilation or while wearing a respirator. A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Ensure ventilation is adequate to maintain air concentrations below Exposure Standards.
<b>Personal Protection Equipment</b>	RESPIRATOR: Avoid breathing dust. Where ventilation is not adequate, respiratory protection may be required. Any P1 or P2 particulate filter respirator will be suitable (AS1715/1716). EYES: Wear safety glasses/goggles with side shield protection (AS1336/1337). HANDS: Wear elbow-length natural rubber, nitrile or PVC impervious gloves. Always check with the glove manufacturer or your personal protective equipment supplier regarding the correct type of glove to use (AS2161). CLOTHING: Wear waterproof apron, coveralls, trousers, long sleeved shirt, closed in shoes and/or safety footwear (AS3765/2210).
<b>Special Hazards Precautions</b>	Protective equipment must be worn at all times. Risk assessments should always be conducted to identify the hazards and in turn determine the appropriate personal protective equipment for the hazard.
<b>Work Hygienic Practices</b>	No Data Available

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Solid
<b>Appearance</b>	Powder
<b>Odour</b>	Slight chlorine odour
<b>Colour</b>	White or pink
<b>pH</b>	11.7 1% Solution
<b>Vapour Pressure</b>	Practically none (@ No Data Available)
<b>Relative Vapour Density</b>	No Data Available
<b>Boiling/Melting Point</b>	No Data Available
<b>Solubility</b>	Soluble in water - 20 g per 100g °C
<b>Freezing Point</b>	No Data Available
<b>Specific Gravity</b>	No Data Available
<b>Flash Point</b>	No Data Available
<b>Auto Ignition Temp</b>	No Data Available
<b>Evaporation Rate</b>	No Data Available
<b>Bulk Density</b>	0.65 - 0.75 g/mL
<b>Corrosion Rate</b>	No Data Available

<b>Decomposition Temperature</b>	No Data Available
<b>Density</b>	No Data Available
<b>Specific Heat</b>	No Data Available
<b>Molecular Weight</b>	No Data Available
<b>Net Propellant Weight</b>	No Data Available
<b>Octanol Water Coefficient</b>	No Data Available
<b>Particle Size</b>	No Data Available
<b>Partition Coefficient</b>	No Data Available
<b>Saturated Vapour Concentration</b>	No Data Available
<b>Vapour Temperature</b>	No Data Available
<b>Viscosity</b>	No Data Available
<b>Volatile Percent</b>	No Data Available
<b>VOC Volume</b>	No Data Available
<b>Additional Characteristics</b>	No Data Available
<b>Potential for Dust Explosion</b>	No Data Available
<b>Fast or Intensely Burning Characteristics</b>	No Data Available
<b>Flame Propagation or Burning Rate of Solid Materials</b>	No known fire hazard.
<b>Non-Flammables That Could Contribute Unusual Hazards to a Fire</b>	No Data Available
<b>Properties That May Initiate or Contribute to Fire Intensity</b>	No Data Available
<b>Reactions That Release Gases or Vapours</b>	No Data Available
<b>Release of Invisible Flammable Vapours and Gases</b>	No Data Available

**10. STABILITY AND REACTIVITY**

<b>General Information</b>	SHELF LIFE: 2 years from manufacturing date (when stored as directed).
<b>Chemical Stability</b>	The product may be unstable above 60 deg C. The amount of available chlorine slowly diminishes: cool storage prolongs viability. The shelf life is 2 years.
<b>Conditions to Avoid</b>	Do not combine part drums of the same product, as this may be a source of contamination. DO NOT mix with acidic compounds as toxic Chlorine gas may be liberated.
<b>Materials to Avoid</b>	Acids, oxidisers, and aluminium.
<b>Hazardous Decomposition Products</b>	Decomposes above 60 deg C first losing water then chlorine to yield a sodium phosphate residue which melts at >1000 deg C. The packaging material may burn to emit noxious fumes.
<b>Hazardous Polymerisation</b>	May react with acids to liberate a toxic chlorine gas. Avoid contact also with caustic alkalis, peroxy-salts (perborate and percarbonate), reducing agents, cationic surfactants and many readily chlorinated non-ionic surfactants.

**11. TOXICOLOGICAL INFORMATION**

<b>General Information</b>	Oral LD50 Rat: 5000 - 10000 mg/Kg CHRONIC TOXICITY: Due to its hypochlorite and high pH values this product can irritate skin, eye and mucous membranes particularly under wet conditions when inflammation can occur. 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:
<b>Eyelrritant</b>	Can severely irritate the eyes. May cause severe damage.
<b>Ingestion</b>	Can be severely irritating if swallowed.
<b>Inhalation</b>	Capable of causing irritation if dusty.]]

**Skin/Irritant** Capable of causing skin irritation and may defat the skin with continual use.  
**Carcinogen Category** 0

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity** No specific data available but high concentrations in receiving waters will harm aquatic life by raising pH and by chlorination effects. The orthophosphate can act as a plant nutrient and precipitate heavy metals. Avoid contaminating waterways. The product is highly alkaline. If large spills occurred a water pH rise could be responsible for an environmental effect on aquatic organisms. If not neutralised this product could potentially be toxic for aquatic organisms because of its alkalinity (pH > 9 can have an effect on fish, with possible fish death). pH > 8.5 could be destroying for algae.

**Persistence/Degradability** No organic components: AS4351 does not apply.

**Mobility** No information available.

**Environmental Fate** No Data Available

**Bioaccumulation Potential** No Data Available

**Environmental Impact** No Data Available

**13. DISPOSAL CONSIDERATIONS**

**General Information** Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

**Special Precautions for Land Fill** Contact a specialist disposal company or the local waste regulator for advice. The product is suitable for disposal by landfill through an approved agent. Incineration of the product is not recommended, as it is unlikely to adequately burn.

**14. TRANSPORT INFORMATION**

**ADG Code** Non-Dangerous Goods according to the criteria of the Australian Dangerous Goods Code (ADG Code).

*Air*

**IATA**

**Proper Shipping Name** Chlorinated Trisodium Phosphate

**Class** No Data Available

**Subsidiary Risk(s)** No Data Available

**UN Number** No Data Available

**Hazchem** No Data Available

**Pack Group** No Data Available

**Special Provision** No Data Available

*Land*

**Australia: ADG Code**

**Proper Shipping Name** Chlorinated Trisodium Phosphate

**Class** No Data Available

**Subsidiary Risk(s)** No Data Available

**EPG** No Data Available

**UN Number** No Data Available

**Hazchem** No Data Available  
**Pack Group** No Data Available  
**Special Provision** No Data Available

**New Zealand: NZS5433**

**Proper Shipping Name** Chlorinated Trisodium Phosphate  
**Class** No Data Available  
**Subsidiary Risk(s)** No Data Available  
**EPG** No Data Available  
**UN Number** No Data Available  
**Hazchem** No Data Available  
**Pack Group** No Data Available  
**Special Provision** No Data Available

**Sea**

**IMDG Code**

**Proper Shipping Name** Chlorinated Trisodium Phosphate  
**Class** No Data Available  
**Subsidiary Risk(s)** No Data Available  
**UN Number** No Data Available  
**Hazchem** No Data Available  
**Pack Group** No Data Available  
**Special Provision** No Data Available  
**EMS** No Data Available  
**Marine Pollutant** No

**15. REGULATORY INFORMATION**

**General Information** No Data Available  
**Poisons Schedule (Aust)** 5  
**AICS Name** Sodium hypochlorite phosphate (Na13(ClO)(PO4)4)

**16. OTHER INFORMATION**

**Related Product Codes** CHTRSO2500, CHTRSO2800, CHTRSO3800, CHTRSO4000, CHTRSO5000, CHTRSO6000, CHTRSO7000, CHTRSO1800, CHTRSO1801, CHTRSO1802  
**Revision** 2  
**Revision Date** 22-Feb-2012

**Key/Legend**  
 < Less Than  
 > Greater Than  
**AICS** Australian Inventory of Chemical Substances  
**atm** Atmosphere  
**CAS** Chemical Abstracts Service (Registry Number)  
**cm<sup>2</sup>** Square Centimetres  
**CO<sub>2</sub>** Carbon Dioxide  
**COD** Chemical Oxygen Demand  
**deg C (°C)** Degrees Celcius  
**EPA (New Zealand)** Environmental Protection Authority of New Zealand  
**deg F (°F)** Degrees Fahrenheit

**g** Grams  
**g/cm<sup>3</sup>** Grams per Cubic Centimetre  
**g/l** Grams per Litre  
**HSNO** Hazardous Substance and New Organism  
**IDLH** Immediately Dangerous to Life and Health  
**immiscible** Liquids are insoluble in each other.  
**inHg** Inch of Mercury  
**inH<sub>2</sub>O** Inch of Water  
**K** Kelvin  
**kg** Kilogram  
**kg/m<sup>3</sup>** Kilograms per Cubic Metre  
**lb** Pound  
**LC50** LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.  
**LD50** LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.  
**ltr** or **L** Litre  
**m<sup>3</sup>** Cubic Metre  
**mbar** Millibar  
**mg** Milligram  
**mg/24H** Milligrams per 24 Hours  
**mg/kg** Milligrams per Kilogram  
**mg/m<sup>3</sup>** Milligrams per Cubic Metre  
**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.  
**mm** Millimetre  
**mmH<sub>2</sub>O** Millimetres of Water  
**mPa.s** Millipascals per Second  
**N/A** Not Applicable  
**NIOSH** National Institute for Occupational Safety and Health  
**NOHSC** National Occupational Health and Safety Commission  
**OECD** Organisation for Economic Co-operation and Development  
**Oz** Ounce  
**PEL** Permissible Exposure Limit  
**Pa** Pascal  
**ppb** Parts per Billion  
**ppm** Parts per Million  
**ppm/2h** Parts per Million per 2 Hours  
**ppm/6h** Parts per Million per 6 Hours  
**psi** Pounds per Square Inch  
**R** Rankine  
**RCP** Reciprocal Calculation Procedure  
**STEL** Short Term Exposure Limit  
**TLV** Threshold Limit Value  
**tn** Tonne  
**torr** Millimetre of Mercury  
**TWA** Time Weighted Average  
**ug/24H** Micrograms per 24 Hours  
**UN** United Nations  
**wt** Weight