

1. IDENTIFICATION

Product Name	Trisodium Phosphate (Anhydrous)
Other Names	Phosphoric acid, trisodium salt; Sodium orthophosphate; Sodium Phosphate, tribasic; Sodium tertiary phosphate; Tribasic sodium orthophosphate; Tribasic sodium phosphate; Trisodium Phosphate
Uses	Water processing, Washing agent and detergent, Textile and leather agent, Ceramic, Enamel, Colours, Food additive. Water conditioner
Chemical Family	No Data Available
Chemical Formula	Na ₃ PO ₄
Chemical Name	Trisodium Phosphate (Anhydrous)
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) 5

Globally Harmonised System

Hazard Classification Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Hazard Categories Specific Target Organ Toxicity (Single Exposure) - Category 3
 Serious Eye Damage/Irritation - Category 2A
 Skin Corrosion/Irritation - Category 2

Pictograms



Signal Word Warning

Hazard Statements

H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Precautionary Statements

Prevention	P261	Avoid breathing dust.	
	P264	Wash hands thoroughly after handling.	
	P271	Use only outdoors or in a well-ventilated area.	
	P280	Wear protective gloves/protective clothing/eye protection/face protection.	
	Response	P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
		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.
		P312	Call a POISON CENTER or doctor/physician if you feel unwell.
		P321	Specific treatment (see First Aid Measures on Safety Data Sheet).
		P332 + P313	If skin irritation occurs: Get medical advice/attention.
	P337 + P313	If eye irritation persists: Get medical advice/attention.	
	P362	Take off contaminated clothing and wash before reuse.	
Storage	P403 + P233	Store in a well-ventilated place. Keep container tightly closed.	
	P405	Store locked up.	
Disposal	P501	Dispose of contents/container in accordance with local / regional / national / international regulations.	

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications

Health Hazards	6.1C	Substances that are acutely toxic- Toxic
	6.1E	Substances that are acutely toxic –May be harmful, Aspiration hazard
	8.1A	Substances that are corrosive to metals
	8.2C	Substances that are corrosive to dermal tissue UN PGIII
	8.3A	Substances that are corrosive to ocular tissue
Environmental Hazards	9.1D	Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Trisodium Phosphate (Anhydrous)	Na ₃ PO ₄	7601-54-9	>97.0 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	Do NOT induce vomiting. Give large amounts of water. Never give anything by mouth to an unconscious person. Get medical attention.
Eye	Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.
Skin	Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Inhaled	In case of unconsciousness place patient stably in side position for transportation.
Advice to Doctor	Treat symptomatically. Can cause corneal burns
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product.

5. FIRE FIGHTING MEASURES

General Measures	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
Flammability Conditions	The product is not flammable. Not considered to be a fire hazard.
Extinguishing Media	CO ₂ , extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Fire and Explosion Hazard	Product does not present an explosion hazard.
Hazardous Products of Combustion	No Data Available
Special Fire Fighting Instructions	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	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). Wear alkaline resistant protective clothing.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Avoid accidents, clean up immediately. 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.
Clean Up Procedures	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.

Containment	Stop leak if safe to do so. Isolate the danger area.
Environmental Precautionary Measures	Do not allow concentrated solutions to enter drainage system, surface or ground water.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes. Prevent formation of dust. This product is hygroscopic. Protect from humidity and keep away from water.
Storage	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. This product is hygroscopic. Protect from humidity and keep away from water. Do not store together with acids. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Store in original packaging as approved by manufacturer. Unsuitable material for container: aluminium. Do not use light alloy containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	Airborne Exposure Limits: Trisodium phosphate: -AIHA Workplace Environmental Exposure Limit: 5 mg/m3 (15-minute STEL)
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
Engineering Measures	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. Adequate ventilation should be provided so that exposure limits are not exceeded.
Personal Protection Equipment	RESPIRATOR: Dust mask, Short term filter device: ABEK-filter, Filter P1 (AS1715/1716). EYES: Tightly sealed safety glasses (AS1336/1337). HANDS: Protective gloves: In case of spray contact at least protection index 2 recommended, according to more than 30 min. penetration time. Layer thickness of gloves at least: 0.4 mm. In case of prolonged and intensive contact protection index 6 recommended, according to more than 480 min. penetration time. Layer thickness of gloves at least: 0.7 mm. Material of gloves: Butyl rubber, BR; Fluorocarbon rubber (Viton); Nitrile rubber, NBR; Natural rubber, NR; Chloroprene rubber, CR; Neoprene gloves. Penetration time of glove material. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed (AS2161). CLOTHING: Alkaline resistant protective clothing and safety footwear (AS3765/2210).
Work Hygienic Practices	Wash hands during breaks and at the end of the work. Avoid contact with the eyes and skin. Instantly remove any soiled and impregnated garments.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Crystalline powder
Odour	Odourless
Colour	White
pH	11.5 - 12.5 1% solution
Vapour Pressure	No Data Available

Relative Vapour Density	No Data Available
Boiling Point	Decomposes
Melting Point	75 °C
Freezing Point	No Data Available
Solubility	140 g/l 20°C
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	600-900 kg/m ³
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	0.7 g/cm ³
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	0
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	No Data Available
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Heat, flames, ignition sources and incompatibles, excessive moisture.
Materials to Avoid	Aqueous solutions will react with aluminium, generating hydrogen gas.
Hazardous Decomposition Products	Phosphorus oxides (e.g. P ₂ O ₅), Sodium oxide (Na ₂ O)
Hazardous Polymerisation	Hazardous Polymerisation has not been reported.

11. TOXICOLOGICAL INFORMATION

General Information	No LD50 data available for the product. Sensitization: No sensitizing effects known.
EyeIrritant	Causes serious eye irritation.
SkinIrritant	Contact with skin will result in irritation.
Inhalation	Material is irritant to the mucous membranes of the respiratory tract (airways).
Carcinogen Category	No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity	No ecological information available for this product.
Persistence/Degradability	No information available on persistence/degradability for this product.
Mobility	No further relevant information available.
Environmental Fate	Water hazard class 1 (Assessment by list): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
Bioaccumulation Potential	No information available on bioaccumulation for this product.
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. Must not be disposed of together with household garbage.
Special Precautions for Land Fill	Contact a specialist disposal company or the local waste regulator for advice. Empty contaminated packagings thoroughly, recommended cleaning agent is water if necessary. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

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

Land Transport (Malaysia)

ADR

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

Land Transport (New Zealand)

NZS5433

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

Land Transport (United States of America)

US DOT

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

Sea Transport

IMDG Code

Proper Shipping Name	Trisodium Phosphate (Anhydrous)
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

Air Transport

IATA DGR

Proper Shipping Name	Trisodium Phosphate (Anhydrous)
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

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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15. REGULATORY INFORMATION

General Information	TRISODIUM PHOSPHATE (ANHYDROUS)
Poisons Schedule (Aust)	5

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002736
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National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	TRSODF1000, TRSODF1001, TRSODF1800, TRSODF1810, TRSODF4500, TRSODF4700, TRSODF4710, TRSODF5300, TRSODF6000, TRSODF6200, TRSODF7000, TRSODF8000, TRSODF8200, TRSODF8300, TRSODI2200, TRSODI2500, TRSODI3500, TRSODI3501, TRSODI5000, TRSODI5001, TRSODI5002, TRSODI7500, TRSODI7501, TRSODI7600, TRSODI7700, TRSODI7701, TRSODI8700, TRSODI8701, TRSODI8702, TRSODI8703
Revision	3
Revision Date	01 Jan 2015
Reason for Issue	Updated SDS
Key/Legend	< Less Than > Greater Than AICS Australian Inventory of Chemical Substances atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm² Square Centimetres CO₂ Carbon Dioxide COD Chemical Oxygen Demand deg C (°C) Degrees Celcius EPA (New Zealand) Environmental Protection Authority of New Zealand deg F (°F) Degrees Farenheit g Grams g/cm³ 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 insoluable in each other. inHg Inch of Mercury inH₂O Inch of Water K Kelvin kg Kilogram kg/m³ 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 m³ Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m³ Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH₂O 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 tne Tonne TWA Time Weighted Average ug/24H Micrograms per 24 Hours UN United Nations wt Weight

