

SAFETY DATA SHEET – PERSOX 980

Version 1.4 Safety Data Sheet according to WHS and ADG requirements Original Date: 01/11/2002 Last Revision: 29.1.2019 Revision Date: **29.1.2024**

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Product name	POOLKARE CHEMICALS PERSOX 980
Chemical Name	sodium persulfate
Proper shipping name	SODIUM PERSULPHATE
Chemical formula	H2O8S2.2Na
Other means of identification	1033
CAS number	7775-27-1

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified USED AS A SHOCK TREATMENT IN SWIMMING POOLS AND SPAS. Other uses as bleaching and oxidising agents, and as promoters for emulsion polymerisation reactions. It is also a reagent in analytical chemistry. [~Regeant ~]

Details of the supplier of the safety data sheet

Registered company name	WOBELEA PTY LTD
Address	18 EMBREY COURT, PAKENHAM VIC 3810. AUSTRALIA
Telephone	03 5940 1077
Fax	03 5940 2599
Website	www.wobelea.com.au
Email	Not Available

Emergency telephone number

Association / Organization	Not Available
Emergency telephone numbers	03 5940 1077, 0427 367 561
Other emergency telephone numbers	Not Available

POISONS INFORMATION EMERGENCY RESPONSE

Primary Number

13 11 26

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.



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Poisons Schedule	S6	
Classification [^{2]}	Acute toxicity – Category 4, Skin Corrosion/Irritation Category 2, Eye Irritation Category 2A, Respiratory Sensitizer Category 1, Skin Sensitizer Category 1, Specific target organ toxicity - single exposure Category 3 (respiratory tract irritation)	
Legend:	1. Classified by Wobelea 2. Classification drawn from HSIS ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI	
Label elements		
GHS label elements		
SIGNAL WORD	DANGER	
Hazard statement(s)		
1202	Harmful if swallowed	

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319 Causes serious eye irritation.	
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

Supplementary statement(s)

Not Applicable

Precautionary statement(s) Prevention

P210	Keep away from heat/sparks/open flames/hot surfaces No smoking.	
P221	Take any precaution to avoid mixing with combustibles/organic material.	
P261	Avoid breathing dust/fumes.	
P271	P271 Use only outdoors or in a well-ventilated area.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P285	P285 In case of inadequate ventilation wear respiratory protection.	
P220	Keep/Store away from clothing/organic material/combustible materials.	
P272	Contaminated work clothing should not be allowed out of the workplace.	

Precautionary statement(s) Response

P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.			
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.			
P362	Take off contaminated clothing and wash before reuse.			
P363	Wash contaminated clothing before reuse.			
P370+P378	In case of fire: Use alcohol resistant foam or fine spray/water fog for extinction.			
P302+P352	IF ON SKIN: Wash with plenty of soap and water.			
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.			
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.			

P337+P313 If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.
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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

CAS No	%[weight]	Name
7775-27-1	>98	sodium persulfate

Mixtures

See section above for composition of Substances

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	 If this product comes in contact with the eyes: Wash out immediately with fresh running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Seek medical attention without delay; if pain persists or recurs seek medical attention. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	 If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.
Inhalation	 If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.
Ingestion	 IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed. In the meantime, qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition. If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist. If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS. Where medical attention is not immediately available or where the patient is more than 15 minutes from a hospital or unless instructed otherwise: INDUCE vomiting with fingers down the back of the throat, ONLY IF CONSCIOUS. Lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. NOTE: Wear a protective glove when inducing vomiting by mechanical means.

Indication of any immediate medical attention and special treatment needed

As in all cases of suspected poisoning, follow the ABCDEs of emergency medicine (airway, breathing, circulation, disability, exposure), then the ABCDEs of toxicology (antidotes, basics, change absorption, change distribution, change elimination). For poisons (where specific treatment regime is absent):

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BASIC TREATMENT

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Establish a patent airway with suction where necessary.

Watch for signs of respiratory insufficiency and assist ventilation as necessary.

Administer oxygen by non-rebreather mask at 10 to 15 L/min.

Monitor and treat, where necessary, for pulmonary oedema.

Monitor and treat, where necessary, for shock.

Anticipate seizures.

DO NOT use emetics. Where ingestion is suspected rinse mouth and give up to 200 ml water (5 ml/kg recommended) for dilution where patient is able to swallow, has a strong gag reflex and does not drool.

ADVANCED TREATMENT

Consider orotracheal or nasotracheal intubation for airway control in unconscious patient or where respiratory arrest has occurred.

Positive-pressure ventilation using a bag-valve mask might be of use.

Monitor and treat, where necessary, for arrhythmias.

Start an IV D5W TKO. If signs of hypovolaemia are present use lactated Ringers solution. Fluid overload might create complications.

Drug therapy should be considered for pulmonary oedema.

Hypotension with signs of hypovolaemia requires the cautious administration of fluids. Fluid overload might create complications.

Treat seizures with diazepam.

• Proparacaine hydrochloride should be used to assist eye irrigation.

BRONSTEIN, A.C. and CURRANCE, P.L.

EMERGENCY CARE FOR HAZARDOUS MATERIALS EXPOSURE: 2nd Ed. 1994

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing media

FOR SMALL FIRE:

- USE FLOODING QUANTITIES OF WATER.
- DO NOT use dry chemical, CO2, foam or halogenated-type extinguishers.
- FOR LARGE FIRE

Flood fire area with water from a protected position

Special hazards arising from the substrate or mixture

	Avoid any contamination of this material as it is very reactive and any contamination is potentially	nazardous	
Fire Incompatibility	 Avoid any contamination of this material as it is very reactive and any contamination is potentially 	hazardous	
	Avoid storage with reducing agents.		

Fire Fighting	 Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water courses.
Fire/Explosion Hazard	 Will not burn but increases intensity of fire. Heating may cause expansion or decomposition leading to violent rupture of containers. Heat affected containers remain hazardous. Contact with combustibles such as wood, paper, oil or finely divided metal may produce spontaneous combustion or violent decomposition. Decomposition may produce toxic fumes of:, sulfur oxides (SOx) Decomposes on heating and produces toxic fumes of sulfur oxides (SOx) and sodium monoxide (Na2O).

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	 Clean up all spills immediately. No smoking, naked lights, ignition sources. Avoid all contact with any organic matter including fuel, solvents, sawdust, paper or cloth and other incompatible materials, as ignition may result. Avoid breathing dust or vapours and all contact with skin and eyes.
Major Spills	 Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. May be violently or explosively reactive.

• Wear full body protective clothing with breathing apparatus.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	 Avoid personal contact and inhalation of dust, mist or vapours. Provide adequate ventilation. Always wear protective equipment and wash off any spillage from clothing. Keep material away from light, heat, flammables or combustibles.
Other information	 Store in original containers. Keep containers securely sealed as supplied. Store in a cool, well ventilated a rea. Keep dry. In addition, Goods of Class 5.1, packing group III should be stored in packages and be separated from buildings, tanks, and compounds containing other dangerous goods in tanks, and from property boundaries by a distance of at least 5 metres.

Conditions for safe storage, including any incompatibilities

Suitable container	 DO NOT repack. Use containers supplied by manufacturer only. For low viscosity materials Drums and jerricans must be of the non-removable head type. Where a can is to be used as an inner package, the can must have a screwed enclosure. For materials with a viscosity of at least 2680 cSt. (23 deg. C) and solids:
	 Removable head packaging and cans with friction closures may be used.
Storage incompatibility	 Inorganic peroxy compounds are potent oxidisers that pose fire or explosive hazards when in contact with ordinary combustible materials. Inorganic peroxides react with organic compounds to generate organic peroxide and hydroperoxide products that react violently with reducing agents. Inorganic oxidising agents can react with reducing agents to generate heat and products that may be gaseous (causing pressurization of closed containers). The products may themselves be capable of further reactions (such as combustion in the air). Inorganic reducing agents react with oxidizing agents to generate heat and products that may be flammable, combustible, or otherwise reactive. Their reactions with oxidizing agents may be violent. Incidents involving interaction of active oxidants and reducing agents, either by design or accident, are usually very energetic and examples of so-called redox reactions. For persulfate salts: Segregate from organics and other readily oxidisable materials. Segregate from powdered metals, phosphorous, hydrides, halogens, acids and alkalis. Avoid contact with combustibles, organic matter. Avoid reaction with acids, alkalis, halides, heavy metals and combustible material (wood, cloth). Avoid any contamination of this material is it is very reactive and any contamination is potentially hazardous Many of the salts of peroxacids are unstable or explosive and are capable of initiation by heat, friction or impact, and all are powerful oxidants.



X — Must not be stored together

 $\mathbf{0} \qquad - \mathsf{May} \ \mathsf{be} \ \mathsf{stored} \ \mathsf{together} \ \mathsf{with} \ \mathsf{specific} \ \mathsf{preventions}$

+ — May be stored together

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	sodium persulfate	Sodium Persulfate	Not Available	Not Available	0.1 mg/m3	Not Available

EMERGENCY LIMITS

Ingredient	Material name	TEEL-1		TEEL-2	TEEL-3
sodium persulfate	Sodium persulfate	0.3 mg/m3		8.2 mg/m3	49 mg/m3
Ingredient	Original IDLH		Revised IDLH		
sodium persulfate	Not Available		Not Available		

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.
Personal protection	
Eye and face protection	 Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task.
Skin protection	See Hand protection below
Hands/feet protection	 Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber NOTE: The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. The selection of suitable gloves does not only depend on the material, but also on further marks of quality which vary from manufacturer to manufacturer. Where the chemical is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application. The exact break through time for substances has to be obtained from the manufacturer of the protective gloves and.has to be observed when making a final choice. Suitability and durability of glove type is dependent on usage. DO NOT wear cotton or cotton-backed gloves. DO NOT wear leather gloves. Promptly hose all spills off leather shoes or boots or ensure that such footwear is protected with PVC over-shoes.
Body protection	See Other protection below
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity. For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets). Non sparking safety or conductive footwear should be considered. Conductive footwear describes a boot or shoe with a sole made from a conductive compound chemically bound to the bottom components, for permanent control to electrically ground the foot and shall dissipate static electricity from the body to reduce the possibility of ignition of volatile
Thermal hazards	Not Available

Respiratory protection

Particulate. (AS/NZS 1716 & 1715, EN 143:000 & 149:001, ANSI Z88 or national equivalent)

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	P1 Air-line*	-	PAPR-P1 -
up to 50 x ES	Air-line**	P2	PAPR-P2
up to 100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

* - Negative pressure demand ** - Continuous flow

A (All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

- + Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures.
- The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option).
- Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended.
- Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program.
- Use approved positive flow mask if significant quantities of dust becomes airborne.
- Try to avoid creating dust conditions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance White odorless crystalline powder. Decomposes in the presence of alcohol, Ag, and air. Solubility in water @ 20 C 549 g/l.

Physical state	Divided Solid	Relative density (Water = 1)	2.4
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not available.
pH (as supplied)	Not Applicable	Decomposition temperature	267
Melting point / freezing point (°C)	Decomposes	Viscosity (cSt)	Not Applicable
Initial boiling point and boiling range (°C)	Not available.	Molecular weight (g/mol)	238.10
Flash point (°C)	Non Flammable	Taste	Not Available
Evaporation rate	Not Applicable	Explosive properties	Not Available
Flammability	Non Flammable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Applicable
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Nil @ 38 C.
Vapour pressure (kPa)	Not available.	Gas group	Not Available
Solubility in water (g/L)	Miscible	pH as a solution (1%)	4.3 (250 g/l)
Vapour density (Air = 1)	Not available.	VOC g/L	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	 Unstable in the presence of incompatible materials. Product is considered stable under normal handling conditions. Prolonged exposure to heat. Hazardous polymerisation will not occur. Many of the salts of per oxoacids are unstable or explosive and are capable of initiation by heat, friction or impact, and all are powerful oxidants. BRETHERICK L.: Handbook of Reactive Chemical Hazards
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7

Hazardous decomposition products

See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.
Ingestion	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 grams may be fatal or may produce serious damage to the health of the individual. Sulfates are not well absorbed orally, but can cause diarrhea.
Skin Contact	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition Open cuts, abraded or irritated skin should not be exposed to this material Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	This material can cause eye irritation and damage in some persons.
	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population.
Chronic	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung. Persulfate exposure commonly manifests itself in the form of a skin rash, eczema and respiratory conditions such as asthma. Allergy may develop after repeated exposures.

	TOXICITY dermal (rat) LD50: >2000 mg/kg ^[1]	IRRITATION Eye: SEVERE *
sodium persulfate	Inhalation (rat) LC50: >191.7 mg/l/4hr ^[2] Inhalation (rat) LC50: >42.9 mg/l1 hr ^[1] Oral (rat) LD50: 700 mg/kg ^[1]	Skin: Moderate
Legend:	 Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances 	

The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitizing substance which is widely distributed can be a more important allergen than one with stronger sensitizing potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.

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Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyper reactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.

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	Allergic reactions involving the respiratory tract are usually due to interactions between IgE antibodies and allergens and occur rapidly. Allergic potential of the allergen and period of exposure often determine the severity of symptoms. Some people may be genetically more prone than others, and exposure to other irritants may aggravate symptoms. Allergy causing activity is due to interactions with proteins. Attention should be paid to atopic diathesis, characterised by increased susceptibility to nasal inflammation, asthma and eczema. Exogenous allergic alveoli is is induced essentially by allergen specific immune-complexes of the IgG type; cell-mediated reactions (T lymphocytes) may be involved. Such allergy is of the delayed type with onset up to four hours following exposure. Oral (Rat, adult female) LD50: 920 mg/kg *Skin: irritant * *Rhein Perchemie MSDS		
Acute Toxicity	Carcinogenicity	0	
Skin Irritation/Corrosion	Reproductivity	0	
Serious Eye Damage/Irritation	STOT - Single Exposure	*	
Respiratory or Skin	STOT - Repeated Exposure	0	
concincation			

S – Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

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Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
sodium persulfate	LC50	96	Fish	76.3mg/L	2
sodium persulfate	EC50	120	Crustacea	11mg/L	2
sodium persulfate	EC50	48	Crustacea	21.22mg/L	2
sodium persulfate	NOEC	120	Crustacea	5mg/L	2
sodium persulfate	EC50	72	Algae or other aquatic plants	83.7mg/L	2
Legend:	Extracted from 1. 3. EPIWIN Suite Aquatic Hazard A Vendor Data	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bio Concentration Data 7. METI (Japan) - Bio Concentration Data 8. Vendor Data			

For Inorganic Sulfate:

Environmental Fate - Sulfates can produce a laxative effect at concentrations of 1000 - 1200 mg/liter, but no increase in diarrhea, dehydration or weight loss. The presence of sulfate in drinking-water can also result in a noticeable taste. Sulfate may also contribute to the corrosion of distribution systems. No health-based guideline value for sulfate in drinking water is proposed.

For Persulfates:

Environmental Fate: Persulfates will readily degrade benzene, xylene, toluene, ethylbenzene and chlorinated benzenes to mineralized end products. Reaction rates with chlorinated solvents are much slower. Aqueous persulfates are expected to degrade in the environment via several mechanisms, (e.g. breakdown in water, decomposition stimulated by the presence of metals, and reactions with organic chemicals in the soil or water).

Atmospheric Fate: There are no data available for breakdown of these substances in sunlight, (photo degradation).

DO NOT discharge into sewer or waterways.

|Eco toxicity:|Fish LC50 (96 h): Poecillia reticulata 323 mg/l (OECD TG203)|Daphnia LC50 (48 h): 357 mg/l OECD TG202|Algal IC10 (96 h): Scenedesmus acuminatus 33 mg/l|Bacterial toxicity: hydrolysis reduction to oxygen, sodium and sulfate ions.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

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SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment meth	nods
	Containers may still present a chemical hazard/ danger when empty.
	Return to supplier for reuse/ recycling if possible.
	Otherwise:
	• If container cannot be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to
	store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill.
	• Where possible retain label warnings and SDS and observe all notices pertaining to the product.
	Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to
	laws operating in their area. In some areas, certain wastes must be tracked.
	A Hierarchy of Controls seems to be common - the user should investigate:
	Reduction
	▶ Reuse
	▶ Recycling
Product / Packaging	▶ Disposal (if all else fails)
disposal	This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use.
disposal	DO NOT allow wash water from cleaning or process equipment to enter drains.
	It may be necessary to collect all wash water for treatment before disposal.
	In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
	Where in doubt contact the responsible authority.
	For small quantities of oxidising agent:
	▶ Cautiously acidify a 3% solution to pH 2 with sulfuric acid.
	Gradually add a 50% excess of sodium bisulfite solution with stirring.
	Add a further 10% sodium bisulfite.
	▶ If no further reaction occurs (as indicated by a rise in temperature) cautiously add more acid.
	Recycle wherever possible or consult manufacturer for recycling options.
	Consult State Land Waste Management Authority for disposal.
	► Bury residue in an authorised landfill.
	 Recycle containers if possible, or dispose of in an authorised landfill.
	 Gradually add a 50% excess of sodium bisulfite solution with stirring. Add a further 10% sodium bisulfite. If no further reaction occurs (as indicated by a rise in temperature) cautiously add more acid. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill.

SECTION 14 TRANSPORT INFORMATION

Labels Required

•	
	XXXXXXX XXXXXXX 5.1
Marine Pollutant	NO
HAZCHEM	1Z
Land transport (ADG)	
UN number	1505
UN proper shipping name	SODIUM PERSULPHATE
Transport hazard class(es)	Class 5.1 Sub risk Not Applicable
Packing group	III
Environmental hazard	Not Applicable
Special precautions	Special provisions Not Applicable

Air transport (ICAO-IATA / DGR)

for user

Limited quantity

5 kg

UN number	1505
UN proper shipping name	Sodium persulphate
Transport hazard class(es)	ICAO/IATA Class 5.1 ICAO / IATA Sub risk Not Applicable

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	ERG Code	5L		
Packing group				
Environmental hazard	Not Applicable			
	Special provisions		Not Applicable	
	Cargo Only Packing Instructions		563	
	Cargo Only Maximum	Qty / Pack	100 kg	
Special precautions	Passenger and Cargo	Packing Instructions	559	
for user				
	Passenger and Cargo	Maximum Qty / Pack	25 kg	
	Passenger and Cargo	b Limited Quantity Packing Instructions	5 Y546	
	Passenger and Cargo	Limited Maximum Qty ./ Pack	10 kg	

Sea transport (IMDG-Code / GGVSee)

UN number	1505
UN proper shipping name	SODIUM PERSULPHATE
Transport hazard class(es)	IMDG Class 5.1 IMDG Sub Risk Not Applicable
Packing group	III
Environmental hazard	Not Applicable
Special precautions for user	EMS NumberF-A, S-QSpecial ProvisionsNot ApplicableLimited Quantities5 kg

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

SODIUM PERSULFATE(7775-27-1) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards		Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated	Lists	

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Υ
Canada - NDSL	N (sodium persulfate)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Υ
Japan - ENCS	Υ
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by Wobelea using available literature references.

Definitions and abbreviations

PC-TWA: Permissible Concentration-Time Weighted AveragePC-STEL: Permissible Concentration-Short Term Exposure Limit IARC: International Agency for Research on Cancer ACGIH: American Conference of Governmental Industrial Hygienists STEL: Short Term Exposure Limit TEEL: Temporary Emergency Exposure Limit. IDLH: Immediately Dangerous to Life or Health Concentrations OSF: Odour Safety Factor NOAEL :No Observed Adverse Effect Level LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value LOD: Limit Of Detection OTV: Odour Threshold Value BCF: BioConcentration Factors BEI: Biological Exposure Index

This information is drawn from recognized sources believed to be reliable. Wobelea Pty Ltd makes no guarantees or assumes any liability in connection with this information. The user should be aware of changing technology, research, regulations, and analytical procedures that may require changes herein. The above data is supplied upon the condition that persons will evaluate this information and then determine its suitability for their use.

This SDS should be used a guideline only. Further information can be obtained from the manufacturer if required. The user should be aware of changing technology, research, regulations, and analytical procedures that may require changes herein. The above data is supplied upon the condition that persons will evaluate this information and then determine its suitability for their use.

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