



SAFETY DATA SHEET SODIUM PERCARBONATE (PG-III) REVISION 3, DATE 19 SEP 19

1. IDENTIFICATION

Product Name	Sodium percarbonate (PG-III)
Other Names	Sodium carbonate, peroxide
Uses	For the manufacture, processing and distribution of substances and mixtures. For use in cleaning agents (industrial, professional and consumer).
Chemical Family	No Data Available
Chemical Formula	$2\text{Na}_2\text{CO}_3 \cdot 3\text{H}_2\text{O}_2$
Chemical Name	Carbonic acid, disodium salt, compound with hydrogen peroxide (2:3)
Product Description	Chemical basic material.

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox 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)

Schedule 6

Redox Ltd
Corporate Office Sydney
Locked Bag 15 Minto NSW 2566 Australia
2 Swettenham Road Minto NSW 2566 Australia
All Deliveries: 4 Holmes Road Minto NSW 2566 Australia

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Australia
Adelaide
Brisbane
Melbourne
Perth
Sydney

New Zealand
Auckland
Christchurch
Hawke's Bay
UK
London

Malaysia
Kuala Lumpur
USA
Los Angeles
Oakland
Mexico
Saltillo



Globally Harmonised System

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

Hazard Categories Oxidising Solids - Category 3
Acute Toxicity (Oral) - Category 4
Serious Eye Damage/Irritation - Category 1
Specific Target Organ Toxicity (Single Exposure) - Category 3

Pictograms

Signal Word Danger

Hazard Statements

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary Statements	Prevention	P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
		P221	Take any precaution to avoid mixing with combustibles.
		P280	Wear protective gloves/eye protection/face protection.
		P270	Do not eat, drink or smoke when using this product.
		P261	Avoid breathing dusts or mists.
		P271	Use only outdoors or in a well-ventilated area.
	Response	P370 + P378	In case of fire: Use water for extinction.
		P330	Rinse mouth.
		P304 + P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
		P312	Call a POISON CENTER or doctor if you feel unwell.
		P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE/doctor.
	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 Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

3. COMPOSITION/INFORMATION ON INGREDIENTS**Ingredients**

Chemical Entity	Formula	CAS Number	Proportion
Carbonic acid, disodium salt, compound with hydrogen peroxide (2:3)	Unspecified	15630-89-4	>=90 %
Carbonic acid, disodium salt	Unspecified	497-19-8	<=10 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth, then give a glass of water. Do NOT induce vomiting. Call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower eyelids. Remove contact lenses if present and easy to do. Continue flushing until advised to stop by a Poisons Information Centre or a doctor, or for at least 15 minutes. Get immediate medical attention - Can cause corneal burns!
Skin	IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately wash skin and hair with plenty of soap and running water for at least 15 minutes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.
Inhaled	IF INHALED: Remove victim to fresh air and keep warm and at rest in a position comfortable for breathing. Remove contaminated clothing and loosen remaining clothing. Call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically. Ensure that attending medical personnel are aware of identity and nature of the product(s) involved, and take precautions to protect themselves. Keep victim calm and warm.
Medical Conditions Aggravated by Exposure	Persons with pre-existing skin, eye, or respiratory disease may be at increased risk from the irritant or allergic properties of this material.

5. FIRE FIGHTING MEASURES

General Measures	Move containers from fire area if you can do it without risk. Do not move cargo or vehicle if cargo has been exposed to heat. Cool containers with flooding quantities of water until well after fire is out. *Large fire: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
Flammability Conditions	OXIDISING SOLID: Will accelerate burning when involved in a fire. *Not combustible; however, will support the combustion of other materials.
Extinguishing Media	If material is involved in a fire, use water for extinction. Do not use dry chemicals or foams. Carbon dioxide (CO2) or Halon® may provide limited control. *Large fire: Flood fire area with water from a distance.
Fire and Explosion Hazard	Risk of violent reaction or explosion! May decompose explosively when heated or involved in a fire. May explode from heat or contamination. May ignite combustibles. Containers may explode when heated.
Hazardous Products of Combustion	Fire may produce irritating and/or toxic gases, including Carbon monoxide and carbon dioxide, Sodium oxide.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may pollute waterways. Runoff may create fire or explosion hazard.
Personal Protective Equipment	Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing (It may provide little or no thermal protection). Structural firefighters' protective clothing will only provide limited protection.
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	1Y

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate closed spaces before entering. ELIMINATE all ignition sources - Prevent exposure to heat. Do not contaminate - Keep combustibles away from spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid generating dust. Avoid breathing dust and contact with eyes, skin and clothing.
Clean Up Procedures	Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal (see SECTION 13). *Do NOT return spilled material to original container for re-use.
Containment	Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Prevent dust cloud.
Decontamination	Following product recovery, flush area with water.
Environmental Precautionary Measures	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. If contamination of sewers or waterways has occurred advise local emergency services.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Stay upwind and/or uphill.
Personal Precautionary Measures	Do not attempt to take action without suitable protective equipment (see SECTION 8).

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation - Use only outdoors or in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Avoid formation of dust and aerosols. Avoid breathing dust/aerosols and contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8). OXIDISING SOLID: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Do not contaminate - Take any precaution to avoid mixing with combustibles.
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Protect from moisture. Keep containers tightly closed when not in use - check regularly for spills. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources - No smoking. Keep away from clothing, other combustible and incompatible materials (see SECTION 10). Store locked up.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	Contains no substances with occupational exposure limit values. *DNEL/DMEL (Workers): COMPONENT: Sodium percarbonate (CAS No. 15630-89-4): - Dermal (Acute, local effects): 12.8 mg/cm ³ - Inhalation (Long-term, local effects): 5 mg/m ³
Exposure Limits	No Data Available
Biological Limits	*PNECs: COMPONENT: Sodium percarbonate (CAS No. 15630-89-4): - Aqua (Freshwater): 35 µg/L - Aqua (Marine water): 35 µg/L - Sediment (Marine water): 10 µg/L - Sewage treatment plant: 16 mg/l
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. *Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Personal Protection Equipment	- Respiratory protection: In case of inadequate ventilation, wear respiratory protection. Recommended: A P2 dust mask is required in situations with elevated airborne dust concentrations occur, such as during filter change.

- Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Chemical goggles.
- Hand protection: Wear protective gloves. Recommended: Permeation resistant gloves, e.g. PVC gloves; neoprene gloves; Natural rubber.
- Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Wear overalls, safety shoes.

Special Hazards Precautions

No information available.

Work Hygienic Practices

Do not eat, drink or smoke when using this product. Always wash hands after handling the product, before breaks and at the end of workday. Take off contaminated clothing and wash it before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Free-flowing granules
Odour	Odourless
Colour	White
pH	10 - 11 (3% solution)
Vapour Pressure	<10-3 Pa (@ 25 °C)
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	140 g/l in water 24°C
Specific Gravity	2.01 - 2.16
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	>50 °C
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	314.06 g/mol
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	No Data Available
VOC Volume	No Data Available
Additional Characteristics	Sodium percarbonate is a simple inorganic salt. *Hygroscopic: absorbs moisture or water from surrounding air.
Potential for Dust Explosion	No information available.
Fast or Intensely Burning Characteristics	Risk of violent reaction or explosion! May decompose explosively when heated or involved in a fire. May explode from heat or contamination.
Flame Propagation or Burning Rate of Solid Materials	No information available.

Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	OXIDISING SOLID: Will accelerate burning when involved in a fire. *Not combustible; however, will support the combustion of other materials.
Reactions That Release Gases or Vapours	Fire may produce irritating and/or toxic gases, including Carbon monoxide and carbon dioxide, Sodium oxide. *Decomposes in contact with water and acids, forming hydrogen peroxide.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	The substance can react dangerously with reducing agents, flammable substances. Risk of decomposition when exposed to continuous heat (exothermic decomposition $\geq 60^{\circ}\text{C}$).
Chemical Stability	Stable under normal temperature conditions and recommended use.
Conditions to Avoid	Avoid moisture. Avoid direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. *Avoid temperatures above 60°C .
Materials to Avoid	Incompatible/reactive with Water, Acids, Bases, Salts of heavy metals, Reducing agents, Organic materials, Flammable substances.
Hazardous Decomposition Products	Fire may produce irritating and/or toxic gases, including Carbon monoxide and carbon dioxide, Sodium oxide. *Decomposes in contact with water and acids, forming hydrogen peroxide.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information	<ul style="list-style-type: none">- Acute toxicity: Harmful if swallowed. Swallowing can result in nausea, vomiting, diarrhoea, and gastrointestinal irritation.- Skin corrosion/irritation: Not irritating. Repeated exposure may cause skin dryness or cracking. Sodium percarbonate is only slightly irritating to the skin of rats and rabbits and is not irritating to the human skin [ECHA].- Eye damage/irritation: Causes serious eye damage. Contamination of eyes can result in permanent injury. Sodium percarbonate is severely irritating to the rabbit eye and can cause irreversible effects [ECHA].- Respiratory/skin sensitisation: The available data indicate that sodium percarbonate is not a skin sensitiser [NICNAS].- Germ cell mutagenicity: Sodium percarbonate is not expected to have genotoxic potential [NICNAS].- Carcinogenicity: Sodium percarbonate is not expected to have a carcinogenic potential [NICNAS]. Not listed as carcinogenic according to the International Agency for Research on Cancer (IARC).- Reproductive toxicity: Sodium percarbonate is not expected to have a toxic potential for reproduction or foetus development [NICNAS].- STOT (single exposure): May cause respiratory irritation. Material is irritant to the mucous membranes of the respiratory tract (airways).- STOT (repeated exposure): No information available.- Aspiration hazard: No information available.
Acute	
Ingestion	Acute toxicity (Oral): - LD50, Rats: 1,034 mg/kg bw. [NICNAS].
Other	Acute toxicity (Dermal): - LD50, Rabbits: >2,000 mg/kg bw. [NICNAS].
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: - LC50, Fish (Pimephales promelas): 70.7 mg/l (96 h). - EC50, Crustaces (Daphnia pulex): 4.9 mg/l (48 h). - EC50, Algae/aquatic plants (Anabaena sp.): 8 mg/l (140 h).
Persistence/Degradability	Not applicable for inorganic substances. *Due to the rapid dissolution of sodium percarbonate in water and its dissociation into sodium carbonate and hydrogen peroxide, no biodegradation of sodium percarbonate is expected.
Mobility	Volatilisation of hydrogen peroxide from surface waters and moist soil is expected to be very low, while it is expected to be highly mobile in soil.
Environmental Fate	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. *Slightly hazardous to water. Do not allow to penetrate into soil, waterways or drains.
Bioaccumulation Potential	No bioaccumulation of sodium percarbonate or its dissociation products sodium carbonate and hydrogen peroxide is expected.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code

Proper Shipping Name	SODIUM CARBONATE PEROXYHYDRATE
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	No Data Available
EPG	31 Oxidizing Substances
UN Number	3378
Hazchem	1Y
Pack Group	III
Special Provision	No Data Available

Land Transport (Malaysia)

ADR Code

Proper Shipping Name	SODIUM CARBONATE PEROXYHYDRATE
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	No Data Available
EPG	31 Oxidizing Substances
UN Number	3378
Hazchem	1Y
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	SODIUM CARBONATE PEROXYHYDRATE
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	No Data Available
EPG	31 Oxidizing Substances
UN Number	3378
Hazchem	1Y
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	SODIUM CARBONATE PEROXYHYDRATE
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	No Data Available
ERG	140 Oxidizers
UN Number	3378
Hazchem	1Y
Pack Group	III
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	SODIUM CARBONATE PEROXYHYDRATE
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	No Data Available
UN Number	3378
Hazchem	1Y
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-Q
Marine Pollutant	No

Air Transport

IATA DGR

Proper Shipping Name	SODIUM CARBONATE PEROXYHYDRATE
Class	5.1 Oxidising Substances
Subsidiary Risk(s)	No Data Available
UN Number	3378
Hazchem	1Y
Pack Group	III
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

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

15. REGULATORY INFORMATION**General Information**

SODIUM PERCARBONATE

Poisons Schedule (Aust)

Schedule 6

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code

Oxidising Liquids and Solids Group Standard 2020
HSR002631
*HSR001351 (Revoked)

National/Regional Inventories**Australia (AIIC)**

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**

SOPERC5500, SOPERC5501, SOPERC5502, SOPERC5503, SOPERC5504, SOPERC5505, SOPERC5506, SOPERC5510,
SOPERC5600, SOPERC6703

3

Revision

Revision Date

Key/Legend

19 Sep 2019

< 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