

1. IDENTIFICATION

Product Name	Sodium Percarbonate
Other Names	Carbonic acid disodium salt, compd. with hydrogen peroxide (H ₂ O ₂) (2:3); Carbonic acid, disodium salt, compound with hydrogen peroxide (H ₂ O ₂) (2:3); Disodium carbonate, compound with hydrogen peroxide (2:3); Sodium Carbonate Peroxide; Sodium Carbonate Peroxyhydrate; SPC
Uses	Sodium Percarbonate dissolves into water rapidly to release oxygen and provides powerful cleaning, bleaching, stain removal and deodorizing capabilities. As a kind of new high effective bleaching raw material for detergent, Sodium Percarbonate also is one disinfecting agent.
Chemical Family	No Data Available
Chemical Formula	CH ₂ O ₃ .3/2H ₂ O ₂ .2Na
Chemical Name	Sodium Percarbonate
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.	2132A E. Dominguez Street Carson CA 90810 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	No. 8, Block G, Ground Floor, Taipan 2 Jalan PJU 1A/3 Ara Damansara 47301, Petaling Jaya, Selangor, Malaysia	+60-3-7843-6833

Emergency Contact Details

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

Organisation	Location	Telephone
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) 6

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications	Physical Hazards	5.1.1B	Oxidising substances that are liquids or solids: medium hazard
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Health Hazards	6.1D	Substances that are acutely toxic - Harmful
	6.4A	Substances that are irritating to the eye
Environmental Hazards	9.1D	Substances that are slightly harmful to the aquatic environment or are otherwise designed for biocidal action
	9.3C	Substances that are harmful to terrestrial vertebrates

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Disodium carbonate, compound with hydrogen peroxide (2:3)	No Data Available	15630-89-4	88 %
Sodium Carbonate	No Data Available	497-19-8	8.67 %
Sodium Chloride	No Data Available	7647-14-5	2.19 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	If the subject is completely conscious, rinse mouth and administer fresh water. Don't induce vomiting. If the subject is unconscious, loosen collar and tight clothing, lay the victim on his/her left side, and give nothing by mouth. Keep warm with blanket. Don't induce vomiting.
Eye	Remove contact lenses. Flush eyes immediately with large quantities of running water, while keeping eyelids wide open (at least for 15-20 minutes). Get medical attention immediately.
Skin	Remove contaminated clothing, shoes, etc. immediately. Wash the affected skin with soap or mild detergent and large quantities of running water until no evidence of chemical remains. Get medical attention in case of persistent pain or redness.
Inhaled	Remove the subject from exposure immediately and perform artificial respiration, if needed. Get medical attention in case of respiratory symptoms.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient. - Give artificial respiration if victim is not breathing. - Administer oxygen if breathing is difficult. - Remove and isolate contaminated clothing and shoes. - Contaminated clothing may be a fire risk when dry. - Keep victim warm and quiet. - Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
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	Intervention only by capable personnel who are trained and aware of the hazards of the product. Evacuate all nonessential personnel. If safe to do so, remove unaffected product to a safe area.
Flammability Conditions	Product is an Oxidizing Solid. Oxygen released on exothermic decomposition may support combustion.
Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Fire and Explosion Hazard	Oxidising material. Contact with combustible materials may cause fire. It may decompose explosively when heated or involved in a fire. May explode from heat or contamination. Containers may explode when heated. Run off may create fire or explosion hazard. Can be released in case of fire: Carbon monoxide and carbon dioxide, Sodium oxide.
Hazardous Products of Combustion	Fire may produce irritating, corrosive and/or toxic gases. Decomposition releases steam/heat.
Special Fire Fighting Instructions	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment. Dam fire control water for later disposal.



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) or chemical splash suit.
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	Avoid materials and products which are incompatible with the product(see section 10). Avoid direct contact of the product with water. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
Clean Up Procedures	Collect the product with suitable means, shovel or sweep, avoiding dust formation. All receiving equipment should be clean, dry, vented, labelled and made of material is compatible with the product.Do NOT return spilled or contaminated material to inventory. - Small spill : With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. - Large spill: Dike far ahead of liquid spill for later disposal. Following product recovery, flush area with water.
Containment	Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.
Decontamination	Clean the area with large quantities of water. For disposal methods, refer to section 13.
Environmental Precautionary Measures	Ventilate for proper method. Make an embankment for further processing. Prevent entry into waterways, sewers, basements or confined areas. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Do NOT touch damaged containers or spilled material unless wearing appropriate protective clothing as listed in section 8.

7. HANDLING AND STORAGE

Handling	Clean and dry process piping and equipment before using the product. Never return spillage to its original package or for reuse. Keep away from incompatible products. Do not use vacuum cleaner for cleaning up. Avoid contact and avoid breathing the material. Emergency showers and eye wash should be readily accessible. Remove all sources of ignition. Containers and equipment used to handle the product should be used exclusively for that product. Avoid any contact with water or humidity. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition -No smoking. Keep away from combustible material.
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. Protect from direct sunlight. Keep away from heat sources. Keep away from reactive products. Store in vented containers. This product has a UN classification of 3378 and a Dangerous Goods Class 5.1 (Oxidiser) according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Do not leave container open. Avoid formation of dust and aerosols. Container type/packaging must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	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).
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. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits. Check legal suitability of exposure level.

Personal Protection Equipment	RESPIRATOR: Use only respiratory protection that conforms to international/national standards - Use breathing masks with dust filter P2 (AS1715/1716). EYES: Use tightly fitting, chemical resistant safety goggles (AS1336/1337). HANDS: Use suitable gloves of PVC, neoprene or natural rubber having a penetration time of 4-8 hours - Do not leather or cotton gloves when handling a wet product (AS2161). CLOTHING: For brief contact, few precautions other than clean body-covering clothing should be needed. When prolonged or frequently repeated contact could occur, use protective, full body clothing, such as PVC or rubber, impervious to this material and safety footwear (AS3765/2210).
Special Hazards Precautions	Consult a health and safety expert for the selection of personal protective equipment suitable for the working conditions.
Work Hygienic Practices	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Granular Solid,
Odour	Odourless
Colour	White or colour
pH	10.0 + 1.0
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	140g/L 24°C
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	0.80-1.0 g/cm ³
Corrosion Rate	No Data Available
Decomposition Temperature	Self-accelerating decomposition with oxygen release starting from 50 °C
Density	2.01 - 2.16 Relative
Specific Heat	No Data Available
Molecular Weight	314.06 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	Not applicable. Sodium percarbonate is a simple inorganic salt.
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	Oxidising properties: Oxidising solid of class 5.1 (UN Recommendations)
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

General Information	Oxidising Solid. Reactivity: Oxidising agents, actual reactivity varies greatly with the identity of the organic compound.
Chemical Stability	Stable under normal temperature conditions and recommended use.
Conditions to Avoid	Avoid moisture. Avoid temperatures above 60 °C, direct sunlight and contact with sources of heat.
Materials to Avoid	Water, Acids, Bases, Salts of heavy metals, Reducing agents, Organic materials, Flammable substances. The substance can react dangerously with reducing agents, flammable substances.
Hazardous Decomposition Products	Can be released in case of fire: Carbon monoxide and carbon dioxide, Sodium oxide.
Hazardous Polymerisation	No Data Available

11. TOXICOLOGICAL INFORMATION

General Information	<p>Oral route LD50 Rat (combined sexes): 1034 mg/Kg (OECD SIDS) Dermal route LDLo Rabbit: >2000 mg/Kg (OECD SIDS) Inhalation LC0, 1 hour, Rat: >4.58 mg/L/4h (OECD SIDS)</p> <p>General: Irritating to mucous membrane, eyes and skin.</p> <p>Irritation: Eyes, severe damage: Rabbit Skin, slightly irritating: Rabbit</p> <p>Sensitization: No sensitization was noted when administered as a 75% w/v mixture during induction and as a 25% w/v mixture at challenge Comments: Toxic effect linked with irritant properties</p> <p>(a) Acute toxicity: It can be concluded that the existing animal data on acute toxicity show that sodium percarbonate exhibits local irritation effects in the gastrointestinal and respiratory tracts and on the skin. Systemic effects are not to be expected. Sodium percarbonate should be classified for acute oral toxicity, Category 4 based on the criteria of the CLP Regulation (EC) No 1272/2008. (b) Skin corrosion/irritation: A human patch test performed with sodium percarbonate (York et al. 1996) and a valid and reliable skin irritation test performed with rabbits (Glaza 1990c) shows that sodium percarbonate is not irritating to the skin. (c) Serious eye damage/irritation: In test (BASF test) on rabbit eye corrosion, eye corrosion was observed. (d) Respiratory or skin sensitization: A valid GLP guideline study was conducted with guinea pigs in which sodium percarbonate was not a skin sensitizer. (e) Germ cell mutagenicity: Data on the mutagenicity of sodium percarbonate are not available but it is likely that any test results for sodium percarbonate will be similar to those of hydrogen peroxide due to the release of hydrogen peroxide in aqueous media. The available studies on hydrogen peroxide, most of them, in particular the in vivo studies, were performed according to OECD guidelines and GLP, are not in support of significant genotoxicity/mutagenicity under in vivo conditions. Therefore sodium percarbonate is also unlikely to have any in vivo genotoxic potential. (f) Carcinogenicity: Carcinogenicity studies with animals and sodium percarbonate are not available. (g) Reproductive toxicity: In conclusion, the available information supports the view that sodium percarbonate and its dissociation products hydrogen peroxide and sodium carbonate do not act as reproductive toxicants or may reach the developing foetus under the conditions of human exposure. It can thus be concluded that the substances should not be considered as reproductive or developmental toxicants.</p>
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(h) STOT-single exposure: The respiratory irritation can be explained by the elevated particle concentration in the breathing air and the formation of hydrogen peroxide and sodium carbonate from the dissociation of sodium percarbonate in the upper respiratory tract. The RD50 was approximately 700 mg/m³.

(i) STOT-repeated exposure: As it is expected that repeated dose toxicity of sodium percarbonate will mainly be mediated by hydrogen peroxide, no observed adverse effect levels can be defined on the basis of its hydrogen peroxide content. Based on the 90-day drinking water study according to OECD guidelines and GLP with hydrogen peroxide and catalase deficient mice, the predicted NOAEL of sodium percarbonate would be 308 ppm (81 to 115 mg/kg bw/day for males and females, respectively)

(j) Aspiration hazard: Not relevant.

Eye/Irritant	Severe eye irritation, watering and redness, can cause burns to the eye. Risk of serious or permanent eye lesions. In case of repeated contact: risk of dermatitis.
Ingestion	Harmful if swallowed. Severe irritation of the mouth, throat, esophagus and stomach. Bloating of stomach, belching. Nausea, vomiting and diarrhea.
Inhalation	Slight nose and throat irritation. At high concentrations, cough. In case of repeated or prolonged exposure: risk of sore throat, nose bleeds, chronic bronchitis.
Skin/Irritant	May cause skin irritation when exposed for long periods of time. Slight irritation. In case of repeated contact: risk of dermatitis.
Carcinogenicity	No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Mutagenicity	No component of this product presents at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
Carcinogen Category	No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity	Fish: 96hr-LC50 = 70.7mg/L (Pimephales promelas) Fish:96hr-NOEC = 1 mg/L (Pimephales promelas) Invertebrates: 48hr-EC = 4.9mg/L (Daphnia magna) Invertebrates: 48d-NOEC = 2.0mg/L (Daphnia magna) Algae: 72hr-EC50 = 7.7mg/L (Crupina vulgaris) Algae: 72hr-NOEC = 0.3mg/L (Crupina vulgaris)
Persistence/Degradability	Sodium percarbonate dissociates in water into hydrogen peroxide and sodium carbonate. Hydrogen peroxide is rapidly degraded in a biological waste water treatment plant. (OECD SIDS).
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. (OECD SIDS)
Environmental Fate	Do NOT let product reach waterways, drains and sewers.
Bioaccumulation Potential	Both sodium carbonate and hydrogen peroxide (log Kow < -1) are inorganic chemicals which do not bioaccumulate. (OECD SIDS).
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	Observe all federal, state, and local environmental regulations. 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 (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 II
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 II
Special Provision No Data Available
EMS F-A,S
Marine Pollutant No

Air Transport

IATA

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

15. REGULATORY INFORMATION

General Information No Data Available
Poisons Schedule (Aust) 6

Environmental Protection Authority (New Zealand)
 Hazardous Substances and New Organisms Amendment Act 2015

Approval Code HSR001351

National/Regional Inventories

Australia (AICS) Listed
Canada (DSL) Listed
Canada (NDSL) Not Determined



China (IECSC)	Listed
Europe (EINECS)	Listed
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Listed
Korea (KECI)	Listed
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)	Listed

16. OTHER INFORMATION

Related Product Codes SOPERC1000, SOPERC1001, SOPERC1002, SOPERC1003, SOPERC1004, SOPERC1005, SOPERC1006, SOPERC1007, SOPERC1008, SOPERC1009, SOPERC1010, SOPERC1011, SOPERC1012, SOPERC1013, SOPERC1014, SOPERC1500, SOPERC2000, SOPERC2001, SOPERC2002, SOPERC2003, SOPERC2004, SOPERC2005, SOPERC2006, SOPERC2007, SOPERC2008, SOPERC2100, SOPERC2500, SOPERC3000, SOPERC3500, SOPERC3600, SOPERC4000, SOPERC4200, SOPERC4300, SOPERC4400, SOPERC4500, SOPERC5000, SOPERC5500, SOPERC6000, SOPERC6001, SOPERC6100, SOPERC6101, SOPERC6200, SOPERC6201, SOPERC6500, SOPERC6501, SOPERC6600, SOPERC6601, SOPERC6700, SOPERC6701, SOPERC6800, SOPERC6900, SOPERC7000, SOPERC7100, SOPERC7200, SOPERC7500, SOPERC8000, SOPERC8500, SOPERC9000, SOPERC9300, SOPERC9500, SOPERC6702, SOPERC4402, SOPERC1800, SOPERC1801, SOPERC1802, SOPERC1803, SOPERC1804, SOPERC1805, SOPERC4403, SOPERC4401, SOPERC4600, SOPERC6300, SOPERC6350, SOPERC4404, SOPERC4405, SOPERC4250, SOPERC4301, SOPERC4406, SOPERC4450, SOPERC4410

Revision 3

Revision Date 26 Oct 2014

Reason for Issue Update 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

