

SAFETY DATA SHEET

PRODUCT NAME: Sodium Percarbonate

September 22

IDENTIFICATION

Product Name: Sodium Percarbonate
Other Names: Carbonic acid disodium salt, compd. with hydrogen peroxide (H₂O₂) (2); disodium carbonate, compound with hydrogen peroxide (2:3); Sodium Carbonate Peroxyhydrate; SPC
Product Code: ZSPERC, CSPER5
Uses: Manufacture of bulk, large scale chemicals (including petroleum products), Formulation [mixing] of preparations and/or repackaging (excluding alloys), Agriculture, forestry and fishing, Manufacture of textiles, leather, and fur.
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton
 Phone: 079744971 Web: www.hamchem.nz Email: info@hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

HAZARD IDENTIFICATION



GHS Classifications

Oxidising Solid – Category 2
 Acute Toxicity (Oral) - Category 4
 Eye Irritation – Category 2
 Hazardous to Terrestrial Vertebrates

Signal Word: DANGER

Hazard Statements

H272 – May intensify fire; oxidiser.
 H302 – Harmful if swallowed
 H319 – Causes serious eye irritation
 H433 - Hazardous to Terrestrial Vertebrates

Prevention

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P220 – Keep away from clothing and other combustible materials.
 P280 – Wear protective gloves/clothing and eye/face protection.
 P264 – Wash hands thoroughly after handling.
 P270 – Do not eat, drink or smoke when using this product.
 P273 – Avoid release to the environment.

Response

P370 + P378 – In case of fire: Use water to extinguish.

Recommendations, suggestions or statements made in the bulletins are intended for the assistance of our customers. They are based upon our experience and judgement but must not be regarded as amounting to a legal warranty or as involving any liability on our part and must be read in conjunction with and subject to our Conditions of Sale which apply to goods supplied by us.

HamChem Ltd, 75 Ruffell Road, Hamilton, New Zealand. Phone: 07-974-4971 Email: info@hamchem.nz Web: www.hamchem.nz

PRODUCT NAME:	Sodium Percarbonate
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P301 + P312 – IF SWALLOWED: Call a POISON CENTRE or Doctor if you feel unwell.
P330 – Rinse mouth
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
P337 + P313 – If eye irritation persists: Get medical advice/attention.

Disposal

P501 – Dispose of contents/container to approved waste facility in accordance with local regulations.

COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Sodium Percarbonate	15630-89-4	100%

FIRST AID MEASURES

For advice, contact a Poisons Information Centre (0800 764 766) or a Doctor.

If swallowed: Get medical attention immediately. If the subject is completely conscious, give 2~4 glasses of water to dilute the chemical. Do not induce vomiting. If the subject is unconscious, loosen tight clothing and lay the victim on his/her left side. Give nothing by mouth and do not induce vomiting.

If on 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.

If inhaled: Remove the subject from exposure immediately and perform artificial respiration, if needed. Get medical attention in case of respiratory symptoms.

If in eyes: 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.

Note to Physician: Treat symptomatically based on judgment 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.

Medical conditions aggravated by exposure: No information available on medical conditions aggravated from exposure to this product.

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: Flood with water for extinguishing agent. CO2 may provide limited control. Do not use dry chemicals or foams.

Fire and explosion hazard: Oxidizing substance which can be decomposed by water, direct sources of heat, catalysts, etc. Decomposition releases oxygen and heat which can support combustion and cause pressure bursts in confined spaces or container. Decomposition in the presence of organic materials can

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PRODUCT NAME:	Sodium Percarbonate
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be highly exothermic and may cause combustion. These substances will accelerate burning when involved in a fire. Some will react explosively with hydrocarbons (fuels).

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.

Hazchem code: 1Y

ACCIDENTAL RELEASE MEASURES

General response procedure: Avoid materials and products which are incompatible with the product. Avoid direct contact of the product with water. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Clean up procedure: 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 that 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: Stop leak if you can do it without risk. Isolate the danger area.

Decontamination: Clean the area with large quantities of water. For disposal methods, refer to disposal considerations.

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 under exposure controls and personal protection.

HANDLING & 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.

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. Protect from direct sunlight. Keep away from heat sources. Keep away from reactive products. Store in vented containers.

PRODUCT NAME:	Sodium Percarbonate
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Container: Container type/packaging must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

EXPOSURE CONTROLS & PERSONAL PROTECTION
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General: No exposure standard has been established for this product by Worksafe NZ. However, the exposure standard for dust not otherwise specified is 10mg/m³ (for inspirable dust) and 3mg/m³ (for respirable dust).

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 use 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 should 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: Safety shower and eyewash stations.

PHYSICAL & CHEMICAL PROPERTIES

Physical state:	Solid
Appearance:	Granular solid, crystalline powder
Odour:	None
Colour:	White
pH:	10.5 (10.1g/L)
Solubility in water:	140g/L°C
Bulk density:	0.80-1.0g/cm ³
Decomposition temperature:	<55°C
Specific Gravity:	2.16
Molecular weight:	314.06 g/mol

STABILITY & REACTIVITY

General information: Oxidizing solid

Chemical stability: Stable, under certain conditions.

Conditions to avoid: Heat/sources of heat, flame. Moisture.

Materials to avoid: Water, acids, bases, salts of metals, reducing agents, organic materials, flammable substances.

Hazardous decomposition products: Fire may produce irritating, corrosive and/or toxic gases. Decomposition releases steam/heat.

TOXICOLOGICAL INFORMATION

General information: Oral route LD50 Rat (combined sexes): 1034 mg/Kg

Dermal route LDLo Rabbit: >2000 mg/Kg

Inhalation LC0, 1 hour, Rat: >4580 mg/m³

Irritation:

Eyes, severe damage: Rabbit

Skin, slightly irritating: Rabbit

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

- (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. Systematic 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 1990) 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.
- (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 700mg/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 and catalase deficient mice, the predicted NOAEL of sodium percarbonate would be 308ppm (81 to 115 mg/kg bw/day for males and females, respectively).
- (j) Aspiration hazard: Not relevant

Eye irritant: Causes severe eye damage. Severe eye irritation, watering and redness, can cause burns to the eye. Risk of serious or permanent lesions.

Ingestion: Harmful if swallowed. Severe irritation of the mouth, throat, oesophagus and stomach. Bloating of stomach, belching. Nausea, vomiting and diarrhoea

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.

PRODUCT NAME:	Sodium Percarbonate
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Skin irritant: May cause skin irritation when exposed for long periods of time. Slight irritation. In case of repeated contact: risk of dermatitis.

Carcinogen category: Not listed as a carcinogen according to the International Agency for Research on Cancer (IARC)

ECOLOGICAL INFORMATION

Ecotoxicity:

- Fish: 96hr-LC50 = 70.7mg/L (Pimephales promelas)
- Fish: 96hr-NOEC = 1mg/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 = -.3mg/L (Crupina vulgaris)

Persistence/degradability: Based on a low Kow – 1.57 sodium percarbonate is not expected to persist.

Mobility: Volatisation 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: Do NOT let product reach waterways, drains or sewers.

Bioaccumulation potential: No bioaccumulation of sodium percarbonate or its dissociation products sodium carbonate and hydrogen peroxide is expected.

Environmental impact: No data available.

DISPOSAL CONSIDERATIONS

General information: Dispose of in accordance with all local, regional and national regulations. All empty packaging should be disposed of in accordance with local, regional and national regulations or recycled/reconditioned at an approved facility.

Special precautions for land fill: Contact a specialist disposal company or the local waste regulator for advice.

TRANSPORT INFORMATION

Proper shipping name: SODIUM CARBONATE PEROXYHYDRATE
Class: 5.1 Oxidising Substances
UN number: 3378
Hazchem: 1Y
Packing group: III

REGULATORY INFORMATION

EPA (New Zealand)

Hazardous Substances and New Organisms Act (HSNO) Approval code: HSR002631 – Oxidising Liquids and Solids Group Standard 2020

HSNO Classifications: 5.1.1B, 6.1D (O), 6.4A, 9.3C

OTHER INFORMATION

End of SDS.