



1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product Name: Dam Buster™

Synonyms: Sodium Percarbonate, Lactose Monohydrate, Sodium Carbonate, Sodium Bicarbonate, Citric Acid, Sodium Chloride (<1%). Carbonic acid disodium salt, compd. with hydrogen peroxide (H2O2) (2:3); Carbonic acid, disodium salt, compound with hydrogen peroxide (H2O2) (2:3); Disodium carbonate, compound with hydrogen peroxide (2:3); Sodium Carbonate Peroxide; Sodium Carbonate Peroxyhydrate; SPC

Common uses: Aerobic bacterial pre-treatment for use in Grease traps and Interceptors, Sewage Lift Stations, Sewer lines, WWTF's, POTW systems to reduce or eliminate odors (e.g. H2S, NH4, VFA's), prevent corrosive acid development and reduce FOG related backups and damage. 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.

Supplied by:

Supplier: Bio Natural Solutions Pty Ltd
 Street Address: 15/ 53-55 Garden Drive Tullamarine, Vic,
 Telephone: 3043 1300 730 551
 Facsimile: 1300 491 167
 Emergency Telephone number: 1300 730 551

2. Composition Information

CHEMICAL NAME	CAS #	TSCA	TSCA 8 (d)	SARA 302	SARA 313	%
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Sodium Per carbonate 15660-89-4
Non-Pathogenic Proprietary Bacteria Blend

YES NO NO NO 33%

N/A YES NO NO NO 67%

Not classified as hazardous according to the criteria of Safe Work Australia.

Not classified as dangerous goods according to the ADG Code.

Chemical Entity	Formula	CASNumber	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 %

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3. Hazards identification.

Poisons Schedule (Aust) 6

Danger

Hazard Classification Hazard Categories

Hazard Statements H272 H302

H318

Pictograms

Precautionary Statements Prevention P210 P221

P280

May intensify fire; oxidizer.

Harmful if swallowed.

Causes serious eye damage.

Signal Word

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

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Take any precaution to avoid mixing with combustibles.

Acute Toxicity (Oral) - Category 4

Wear protective gloves/protective clothing/eye protection/face protection.

Serious Eye Damage/Irritation - Category 1

Oxidising Solids - Category 2



Response **P305 + P351 + P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310

Immediately call a POISON CENTER or doctor/physician.

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)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

5.1.1B Oxidising substances that are liquids or solids: medium hazard

HSNO Classifications Physical Hazards

Health
Hazards

Environmental Hazards
6.1D

6.4A 9.1D

9.3C

Substances that are acutely toxic - Harmful

Substances that are irritating to the eye

Substances that are slightly harmful to the aquatic environment

or are otherwise designed for biocidal action

Substances that are harmful to terrestrial vertebrates

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4. First Aid measures.

Medical attention is required in case of exposure by inhalation, contact with skin or eyes, or if swallowed.

Exposure Route Inhalation

Description of necessary measures according to routes of exposure

Swallowed

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.

Eye

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.

Skin

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

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.

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

Special Fire Fighting Instructions

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 Extinguishing Media Fire and Explosion Hazard

Product is an Oxidizing Solid. Oxygen released on exothermic decomposition may support combustion. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Hazardous Products of Combustion

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.

Fire may produce irritating, corrosive and/or toxic gases. Decomposition

releases steam/heat.

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 No Data

Lower Explosion Limit Available No Data

Upper Explosion Limit Available No Data

Auto Ignition Available

Temperature

Hazchem Code 1Y

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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.

Collect the product with suitable means, shovel or sweep, avoiding dust formation. All receiving equipment should be

Clean Up Procedures

- Large spill: Dike far ahead of liquid spill for later disposal. Following product recovery, flush area with water Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

Clean the area with large quantities of water. For disposal methods, refer to section 13.%

Containment

Decontamination

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.

Environmental Precautionary Measures

Evacuation Criteria

Evacuate all unnecessary personnel.

Personal Precautionary Measures

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 spil area.

Do NOT touch damaged containers or spilled material unless wearing appropriate protective clothing as listed in section 8.

7. Handling & Storage.

Handling

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.

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.

Storage Container

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.

Do not leave container open. Avoid formation of dust and aerosols. Container type/package must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

8. Exposure Controls/personal protection.

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).

General

Exposure Limits Biological Limits

No Data Available

No information available on biological limit values for this product.

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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 could occur, use protective, full body clothing, such as PVC or rubber, impervious to this material and safety footwear (AS3765/2210).

Special Hazards Precautions Work Hygienic Practices

Handle in accordance with good industrial hygiene and safety practice.

Consult a health and safety expert for the selection of personal protective equipment suitable for the working conditions.

Wash hands before breaks and at the end of workday.

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

9. Physical & Chemical Properties.

Physical State

Appearance

Odour

Colour

pH

Vapour Pressure

Relative Vapour Density

Boiling Point

Melting Point

Freezing Point

Solubility

Specific Gravity

Flash Point

Auto Ignition Temp

Evaporation Rate

Bulk Density

Corrosion Rate

Decomposition Temperature Density

Specific Heat

Molecular Weight

Net Propellant Weight

Octanol Water Coefficient Particle Size

Partition Coefficient

Saturated Vapour Concentration Vapour

Temperature

Viscosity

Volatile Percent

VOC Volume

Solid

Granular Solid,

Odourless

White or colour

10.0 + 1.0

<10-3 Pa (@25 °C)

No Data Available

No Data Available

No Data Available

No Data Available

140g/L 24°C

No Data Available

No Data Available

No Data Available

No Data Available

0.80-1.0 g/cm³

No Data Available

Self-accelerating decomposition with oxygen release starting from 50 °C 2.01 - 2.16 Relative	No Data Available
No Data Available	No Data Available
314.06 g/mol	No Data Available
No Data Available	No Data Available
Not applicable. Sodium percarbonate is a simple inorganic salt. No Data Available	No Data Available

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Oxidising properties: Oxidising solid of class 5.1 (UN Recommendations) No Data Available

No Data Available

Additional Characteristics Potential for Dust Explosion

No Data Available

Fast or Intensely Burning Characteristics

No Data Available

Flame Propagation or Burning Rate of Solid Materials

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



10. Stability & Reactivity.

General Information Chemical Stability

Conditions to Avoid Materials to Avoid

Avoid moisture. Avoid temperatures above 60 °C, direct sunlight and contact with sources of heat.

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

Hazardous Polymerisation

Reactivity: Oxidising agents, actual reactivity varies greatly with the identity of the organic compound. Stable under normal temperature conditions and recommended use.

dioxide, Sodium oxide. No Data Available

11. Toxicological Information.

General Information 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)

General: Irritating to mucous membrane, eyes and skin.

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

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(a)

Acute toxicity: It can be concluded that the existing animal data on acute toxicity show that sodium percarbon 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 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 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.

STOT-single exposure: The respiratory irritation can be explained by the elevated particle concentration in 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.

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 NOEL of sodium percarbonate would be 308 ppm (81 to 115 mg/kg bw/day for males and females, respectively)

Aspiration hazard: Not relevant

Eyelrritant

Harmful if swallowed. Severe irritation of the mouth, throat, esophagus and stomach. Bloating of stomach, belching. Nausea, vomiting and diarrhea.

Ingestion

Slight nose and throat irritation. At high concentrations, cough. In case of repeated or prolonged exposure: risk of sore throat, nose bleeds, chronic bronchitis.

Inhalation

SkinIrritant

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

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.

No Data Available

12. Ecological Information.

Ecotoxicity

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)

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).

Persistence/Degradability 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 Bioaccumulation Potential

Do NOT let product reach waterways, drains and sewers.

Environmental Impact

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

Both sodium carbonate and hydrogen peroxide (log Kow < -1) are inorganic chemicals which do not bioaccumulate. (OECD SIDS).

No Data Available



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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. (Not regulated for transport)

Land Transport (Australia)

ADG Code

Proper Shipping Name

Class

Subsidiary Risk(s)

EPG

UN Number

Hazchem

Pack Group

Special Provision

Land Transport (New Zealand) NZS5433

Proper Shipping Name

Class

Subsidiary Risk(s)

EPG

UN Number

Hazchem

Pack Group

Special Provision
SODIUM CARBONATE

Land Transport (Malaysia) ADR

Proper Shipping Name

Class

Subsidiary Risk(s)

EPG

UN Number

Hazchem

Pack Group

Special Provision

PEROXYHYDRATE 5.1 Oxidising

Substances

No Data Available

31 Oxidizing Substances

3378

1Y

II

No Data Available

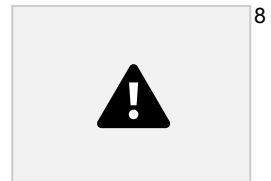
SODIUM CARBONATE
PEROXYHYDRATE 5.1 Oxidising
Substances
No Data Available

31 Oxidizing Substances
3378
1Y
II
No Data Available

SODIUM CARBONATE
PEROXYHYDRATE 5.1 Oxidising
Substances
No Data Available
31 Oxidizing Substances
3378
1Y
II
No Data Available

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Land Transport (United States of America) US DOT

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

Proper Shipping Name Class

Subsidiary Risk(s)	SODIUM CARBONATE
UN Number	PEROXYHYDRATE 5.1 Oxidising
Hazchem	Substances
Pack Group	No Data Available
Special Provision	3378
EMS	1Y
Marine Pollutant	II
	No Data Available

Air Transport

IATA DGR

Proper Shipping Name Class	No
Subsidiary Risk(s)	
UN Number	
Hazchem	SODIUM CARBONATE
Pack Group	PEROXYHYDRATE 5.1 Oxidising
Special Provision	

Substances
No Data Available
3378
1Y

II
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)

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15. Regulatory Information.

Poisons Schedule (Aust)

No Data Available 6

General Information

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

Approval Code HSR001351 **National/Regional**

Inventories

Australia (AICS)

Canada (DSL)

Canada (NDSL)

China (IECSC)

Europe (EINECS)

Europe (REACH)

Japan (ENCS/METI)

Korea (KECI)

Malaysia (EHS Register)

New Zealand (NZIoC)

Philippines (PICCS)

Switzerland (Giftliste 1)

Switzerland (Inventory of Notified Substances)

Taiwan (NCSR)
Listed

Listed

Not Determined Listed

Listed	Not Determined Not
Not Determined Listed	Determined Not Determined
Listed	Not Determined
Not Determined Listed	
USA (TSCA) Listed	

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16. Other Information.

This material must not be used for direct contact with food:

Wash hands thoroughly after handling.

Legal Disclaimer:

The above information in this MSDS was obtained from sources which we believe are reliable. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESSED OR IMPLIED, REGARDING ITS CORRECTNESS. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. FOR THIS AND OTHER REASONS, WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, OR USE OF THIS PRODUCT.

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