SODIUM BICARBONATE – SAFETY DATA SHEET

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

PRODUCT IDENTIFIER

Synonyms	Bicarbonate of soda; Baking soda; Sodium hydrogen carbonate; Nahcolite; Sodium acid carbonate; Carbonic acid monosodium salt.
Uses	It is a Food Additive, E500 (acidity regulator, anticaking agent, raising agent), feed additive, buffer and neutralizer in the Beverage industry. Used as an abrasive in toothpaste, in dry chemical extinguishers, to absorb odours and in manufacture of speciality chemicals and pharmaceuticals.

DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Registered distributor company name	PureNature
Address	626A Rosebank Road, Avondale Auckland 1026 New Zealand
Telephone	+649 8135619
Website	www.purenature.co.nz
Email	info@purenature.co.nz

EMERGENCY TELEPHONE NUMBER

Emergency telephone numbers	111
Other emergency telephone numbers	0800 764 766 NZ National Poisons Centre

SECTION 2 HAZARDS IDENTIFICATION

HSNO Classifications: Classified as Non-Hazardous according to the criteria of the New Zealand Hazardous Substances and New Organisms Legislation.

Emergency Overview	Non-hazardous. Health injuries are not known or expected under normal use. Adverse ecological effects are not known or expected.
Precautionary Statement	Avoid generating excessive dust. Do not breathe dust. If in contact with eyes, rinse thoroughly.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Name	Sodium Bicarbonate	**Hazardous**	No
CAS No	144-55-8	**Proportion %**	>90

SECTION 4 FIRST AID MEASURES

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Inhalation:	Remove to fresh air. Other measures are usually unnecessary. If symptoms persist, call a doctor.
Skin contact:	If skin or hair contact occurs flush skin and hair with running water (and soap if available). Seek medical attention in the event of irritation.
Eye contact:	If this product comes in contact with eyes wash out immediately with water. If irritation continues, seek medical attention.
Ingestion:	If ingested, rinse mouth with water. If large amounts have been swallowed or symptoms persist contact a Poison Centre (0800 764 766) or a doctor
Note to Physician	Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing Media	In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions: water spray, dry powder, foam, carbon dioxide (CO2).
Fire Fighting	Alert Fire Brigade and tell them location and nature of hazard. Use standard procedure for chemical fires. Clear fire area of all non-emergency personnel. Stay upwind. Eliminate ignition sources. Prevent spillage from entering drains or watercourses. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location.
Fire and Explosion Hazard	Non-combustible solid.
Hazards from Combustion Products	Combustion products include: carbon monoxide (CO), carbon dioxide (CO2), sodium oxides and other pyrolysis products typical of burning organic material.
Personal Protective	Firefighters should wear protective firefighting clothing (including firefighting helmet, coat, trousers, boots and gloves).

SECTION 6 ACCIDENTAL RELEASE MEASURES

Minor Spills	Clean up all spills immediately. Stop spill if safe to do so. Avoid contact with skin and eyes. Avoid generating dust. Pick up and transfer to properly labelled containers for disposal. After cleaning, flush away traces with water.
Major Spills	Clear area of personnel. Control personal contact by using protective equipment. Dampen product, if necessary, to avoid dissemination of the product. Prevent spillage from entering drains, sewers or water courses. Recover product wherever possible. Put residues in labelled plastic pails or other suitable sealed containers for disposal. If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 HANDLING AND STORAGE

Procedure for Handling	Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Avoid contact with skin and eyes. Keep containers closed until ready for use. Avoid dust formation.
Suitable Container	Polyethylene coated paper bags, fibre drums or polyethylene/propylene big bags. Original packaging. Check all containers are clearly labelled and free from leaks.
Storage Incompatibility	Avoid storage with monoammonium phosphate or sodium-potassium alloy. Avoid contamination, store away from Dangerous Goods and Toxic Substances.
Storage Requirements	Store tightly closed in dry, cool, well ventilated conditions out of direct sunlight. Avoid high humidity.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Controls

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC
New Zealand WES 2016	inspirable dust		10					
New Zealand WES 2016	respirable dust		3					

No exposure limits set by WorkSafe New Zealand or Safe Work Australia

Engineering Controls	Ventilation System: Remove dust as necessary. Refer to 'A simple guide to local exhaust ventilation' found on the WorkSafe New Zealand website.
Personal Protection Equipment (PPE)	PERSONAL RESPIRATORS: An approved dust mask e.g. a P1 respirator is recommended when using this product in dusty conditions. See Australian/New Zealand Standard, AS/NZS 1715:2009 and AS/NZS 1716:2012. SKIN PROTECTION: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. EYE PROTECTION: Use chemical safety glasses and/or a full face shield where splashing is possible. Maintain eye wash fountain in work area.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Powder, crystalline, white.		
State	Dividend solid	**Autoignition Temp (°C)**	Not available
Molecular Weight	84.01	**Flash Point (°C)**	Not applicable
Melting Range (°C)	50 (decomposition starts)	**Lower Explosive Limit (%)**	Not applicable
Boiling Range (°C)	Not applicable	**Upper Explosive Limit (%)**	Not applicable
Solubility in water (g/L)	96	**Decomposition Temp (°C)**	100
pH (1% solution)	~8.4	**Viscosity**	Not applicable
pH (as supplied)	Not applicable	**Evaporation Rate**	Not applicable
Bulk Density	~900	**Vapour Pressure (kPa)**	Not applicable
Volatile Component (%vol)	Not applicable	**Relative Vapor Density(air=1)**	Not applicable

SECTION 10 STABILITY AND REACTIVITY

Chemical stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to avoid	Avoid excessive heat, moisture and incompatible materials.
Incompatible materials	Reacts with acids to form carbon dioxide. Dangerous reaction with monoammonium phosphate dry chemical extinguishing agent. Moisture accelerates this reaction. Reacts violently with sodium-potassium alloy. Incompatible with acids, acidic salts, aspirin and bismuth salicylate. Keep containers dry and tightly closed to avoid moisture absorption and contamination.
Hazardous decomposition	Thermal decomposition can lead to release of carbon oxides.
Hazardous reaction	Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Health Effects	Swallowed: Health injuries are not known or expected under normal use. Large doses may cause gastrointestinal upsets, with large amounts of carbon dioxide being produced. Eye: May cause mild irritation. Skin: The material is not thought to produce adverse health effects or skin irritation following contact. Inhaled: Inhalation of dust may cause coughing and irritation of the respiratory tract.
Chronic Health Effects	Chronic over-ingestion may cause metabolic alkalosis, cyanosis and hypernatremia. Not considered to be mutagenic, carcinogenic or a reproductive toxin.
Toxicity and Irritation Data	TOXICITY: Acute Oral Toxicity, Rat, LD50: >5000 mg/kg Acute Dermal Toxicity, LD50: No data available. Acute Inhalation Toxicity, LC50: No data available. IRRITATION Mild irritation of eyes and respiratory tract. Skin irritation/corrosion Rabbit GLP study 40 CFR 798.4470: Slightly irritating. Eye irritation/Corrosion Rabbit EPA TSCA 40 CFR 798.4500 Draize test: minimally irritating. Irritating (dose of 220mg). Sensitisation (respiratory/contact): Not classified. Carcinogenic effects: Not classified or listed by IARC, NTP, OSHA, EU and ACGIH. Mutagenic effects: Not classified. Reproductive or developmental effects: Not classified. Aspiration hazard: Not available. Specific target organ toxicity: Not classified.

SECTION 12 ECOLOGICAL INFORMATION

Ecotoxicity	Not considered to be a hazard to the environment.
Ecotoxicity Data	48 hour EC50 Daphnia magna (water flea): >1000 mg/l 96 hour LC50 Rainbow Trout: >7,700 mg/L 48 hour LC50 Apis mellifera (Honeybee): >24µ/bee
Persistence / Degradability	Inorganic compound, found naturally in the environment. The natural mineral form is known as nahcolite. Sodium bicarbonate will absorb moisture and gradually decompose into sodium carbonate, water and carbon dioxide
Mobility	Sodium bicarbonate is present in the environment predominantly as sodium and bicarbonate ions in the aquatic environment.
Environmental Fate (Exposure)	Not expected to present adverse effects on the environment.
Bio-Accumulation Potential	Will not accumulate in living tissues.

SECTION 13 DISPOSAL CONSIDERATION

Recycle wherever possible. Consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
Dispose of by: Burial in a licensed land-fill or Incineration in a licensed apparatus (after admixture with suitable combustible material).
Empty contaminated packaging should be taken for local recycling, recovery or waste disposal.

SECTION 14 TRANSPORT INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: UN, IATA, IMDG
Not classified as a Dangerous Good under NZS 5433:2007 Transport of Dangerous Goods on Land.

SECTION 15 REGULATORY INFORMATION

REGULATIONS
Non-hazardous.

Controls applying to this substance are:
None, not hazardous.

Carbonic acid monosodium salt, CAS 144-55-8 is listed on the following inventories:
NZIoC, TSCA, AICS, DSL, ENCS

Sodium Carbonates, Food Additive E500, is found on the following regulatory lists:
New Zealand - Australia New Zealand Food Standards Code - Food Additives - Schedule 8 Food additive names and code numbers.
New Zealand - Australia New Zealand Food Standards Code - Food Additives – Schedule 15 Substances that may be used as food additives.
CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP
Sodium bicarbonate is classified by the U.S. Food and Drug Administration (FDA) as a 'Generally Recognised as Safe' (GRAS) ingredient in food with no other limitation than current good manufacturing practice (FDA, 1978; FDA, 1983).
EU approved food additive (EU, 2000) and a feed ingredient (EU, 1998).

SECTION 16 OTHER INFORMATION

The information contained in this Safety Data Sheet is obtained from current and reliable sources. PureNature provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This Safety Data Sheet summarises our best current knowledge of the health and safety hazard information of the product but does not claim to be all inclusive. This document is intended only as a guide to the appropriate handling of this material.

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