Infosafe No™ 1CHAP Issue Date :January 2022 RE-ISSUED by CHEMSUPP

Product Name **BARIUM CARBONATE**

Classified as hazardous

Section 1 - Identification

Product Identifier	BARIUM CARBONATE
Company Name	CHEMSUPPLY AUSTRALIA PTY LTD (ABN 19 008 264 211)
Address	38 - 50 Bedford Street GILLMAN SA 5013 Australia
Telephone/Fax Number	Tel: (08) 8440-2000
Emergency Phone Number	CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)
E-mail Address	www.chemsupply.com.au
Recommended use of the chemical and restrictions on use	Treatment of brines in chlorine-alkali cells to remove sulfates; production of barium salts, chemicals, ceramic flux, optical glass, case-hardening baths, ferrites, brick, enamels, marble substitutes, photographs, paints, paper, rubber and in radiation-resistant glass for colour television tubes; used in the oil well drilling industry; electrodes; analytical reagent and laboratory reagent.

Other Names

Name	Product Code
BARIUM CARBONATE TG	BT035
BARIUM CARBONATE AR	BA035

Other Information

ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Section 2 - Hazard(s) Identification

GHS Classification of the Substance/Mixture	Acute Toxicity - Oral: Category 4
Signal Word	WARNING
Hazard Statement (s)	H302 Harmful if swallowed.
Pictogram (s)	Exclamation mark

Precautionary Statement – Prevention	P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product.
Precautionary Statement – Response	P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. P330 Rinse mouth.
Precautionary Statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

Section 3 - Composition and Information on Ingredients

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Ingredients	Name	CAS	Proportion
	Barium carbonate	513-77-9	100 %

Section 4 - First Aid Measures

Inhalation If inhaled, remove from contaminated area to fresh air immediately. Apply artificial respiration if not breathing. If breathing is difficult, give oxygen. Consult a physician.

Ingestion Rinse mouth thoroughly with water immediately, repeat until all traces of product have been removed. DO NOT INDUCE VOMITING. Seek medical advice if effects persist.

Skin Wash affected area thoroughly with soap and water. Remove contaminated clothing and wash before reuse or discard. If symptoms develop seek medical attention.

Eye Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. If rapid recovery does not occur, obtain medical attention

First Aid Facilities Maintain eyewash fountain and safety shower in work area.

Advice to Doctor Treat symptomatically based on judgement of doctor and individual reactions of the patient.

Other Information For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor.

Section 5 - Firefighting Measures

Hazards from Combustion Products Not known to occur. Thermal decomposition may result in the release of irritating and/or toxic fumes including oxides of carbon and barium.

Specific Methods Use extinguishing media most appropriate for the surrounding fire. No limitations to the type of extinguishing media.
Material does not burn.
Small fire: Use dry chemical, CO2 or water spray. If safe to do so, move undamaged containers from fire area.
Large fire: Use dry chemical, CO2, foam or water spray - Do not use water jets.

Hazchem Code 2Z

Precautions in connection with Fire Wear SCBA and chemical splash suit. Fully-encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

Section 6 - Accidental Release Measures

Personal Precautions Avoid substance contact. Avoid generation of dusts: do not inhale dusts. Ensure supply of fresh air in enclosed rooms.

Personal Protection Wear protective clothing specified for normal operations (see Section 8)

Clean-up Methods - Small Spillages Sweep up (avoid generating dust) and using clean non-sparking tools transfer to a clean, suitable, clearly labelled container for disposal in accordance with local regulations.

Section 7 - Handling and Storage

Precautions for Safe Handling Avoid ingestion and inhalation of vapours, or dusts. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Minimize dust generation and accumulation. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained. Keep containers securely sealed when not in use. Use with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Wear suitable protective clothing. Wash thoroughly after handling. Contaminated clothing should be removed and washed before re-use. Work clothes should be laundered separately. Under no circumstances eat, drink or smoke while handling this material. Avoid physical damage to containers. Isolate from incompatible substances, such as acids. Containers of this material may be hazardous when empty since they retain product residues (dust,

	solids); observe all warnings and precautions listed for the product. Limit all unnecessary personal contact. Use good occupational work practice. Observe manufacturer's storing and handling recommendations.
Conditions for safe storage, including any incompatibilities	Store in tightly closed containers, in a cool, dry, well-ventilated area away from incompatible substances. Avoid storage with acids, oxidizing agents, bromine trifluoride and 2-furanpercarboxylic acid. Protect containers against physical damage and check regularly for leaks. Keep protected from direct sunlight and moisture. Store away from foodstuffs and sources of heat. Store in original containers. Observe manufacturer's storing and handling recommendations. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.
Storage Regulations	Refer Australian Standard AS/NZS 4452:1997 'The storage and handling of toxic substances'.
Storage Temperatures	Store at room temperature (15 to 25 °C recommended).
Recommended Materials	Glass, plastic, metal.

Section 8 - Exposure Controls and Personal Protection

Other Exposure Information	A time weighted average (TWA) has been established for Barium, soluble compounds (as Ba) (Safe Work Australia) of 0.5 mg/m³. The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week.
Engineering Controls	In industrial situations maintain the concentrations values below the TWA. This may be achieved by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods.
Respiratory Protection	Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.
Eye and Face Protection	The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.
Hand Protection	Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance. Recommendation: Excellent: Vinyl gloves. Nitrile rubber gloves
Personal Protective Equipment	Final choice of personal protective equipment will depend on individual circumstances and/or according to risk assessments undertaken.
Body Protection	Clean clothing or protective clothing should be worn, preferably with an apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.
Hygiene Measures	Always wash hands before smoking, eating or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Section 9 - Physical and Chemical Properties

Form	Solid
Appearance	White to greyish-white fine granular powder.
Odour	Odourless.
Melting Point	811 °C (1 atm); ca. 1400 - 1740 °C (90 bar).
Boiling Point	1300 °C (decomposes); 1555 °C.
Solubility in Water	Almost insoluble in water (0.024 g/l; 0.0022 g/l @ 18 °C).

Solubility in Organic Solvents	Soluble in solution of dilute hydrochloric acid, nitric acid, or acetic acid. Soluble in solution of ammoniu chloride or ammoniu nitrate. Insoluble in sulfuric acid. Soluble in ethanol. Soluble in dilute hydrochloric acid, nitric acid or acetic acid, solution of ammonium chloride or ammonium nitrate, ethanol. Insoluble in sulfuric acid.
Specific Gravity	4.43
pH	pH 7-8 (0.016 g/L)
Vapour Pressure	Negligible (0 @ 20 °C (mm Hg) Essentially)
Evaporation Rate	Negligible.
Volatile Component	0 %vol @ 21 °C
Partition Coefficient: n-octanol/water (log value)	log P (o/w): -1.32
Flammability	Non combustible material.
Auto-ignition Temperature	> 400 °C (solid) (limited relevance).
Explosion Properties	Not considered to be an explosion hazard.
Molecular Weight	197.35

Section 10 - Stability and Reactivity

Chemical Stability	Stable under normal use conditons.
Possibility of Hazardous Reactions	Reactive with acids, forming carbon dioxide gas that may cause suffocation in enclosed spaces. Reacts violently with bromine trifluoride and 2-furanpercarboxylic acid.
Conditions to Avoid	Dust generation, extreme heat, high temperatures and incompatible materials.
Incompatible Materials	Acids (contact with acids causes formation of carbon dioxide gas that may cause suffocation in enclosed spaces), oxidizing agents, bromine trifluoride and 2-furanpercarboxylic acid.
Hazardous Decomposition Products	Barium oxide and carbon dioxide.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

Toxicology Information	
Acute Toxicity - Oral	LD50 (rat): 418 mg/kg;
Ingestion	Toxic if swallowed. Ingestion may cause mucosal irritation, ulceration of the mucous membranes of the gastrointestinal tract, excessive salivation, severe abdominal pain (colic), hypermotility, violent diarrhea with watery and bloody stools, weakness, nausea, vomiting, confusion, anxiety, convulsive tremors, giddiness, dilated pupils, dryness of mouth, thirst, sweating, tingling around the mouth and neck, tightness in the muscles of the face, neck and throat, muscular rigidity, muscle twitching, progressing to transient muscle paralysis, gastroenteritis, hemorrhages in the gastrointestinal tract and kidneys, dysarthria, dyspnea, respiratory depression, headaches, urinary retention, testicular tenderness. May also cause hypokalemia with associated electrocardiogram changes, hypertension (increased blood pressure), heart palpitations, cardiac irregularity due to contractions of smooth striated and cardiac muscles (often violent and painful), slow irregular pulse, rapid pulse, cardiac dysrhythmias, bradycardia (subdued cardiac activity). Serious cases may result in paralysis of the respiratory muscles, convulsions, shock, circulatory collapse and death. May affect behaviour/central nervous

	system/peripheral nervous system, gastrointestinal system, respiration, cardiovascular system, bone marrow, spleen, liver and kidneys.
Inhalation	Harmful if inhaled. May cause respiratory tract irritation, coughing and dyspnoea. May cause benign pneumoconiosis (baritosis). This is not incapacitating and is usually reversible with cessation of exposure. Inhalation may have similar systemic effects as ingestion since Barium Carbonate is cleared from the lungs into the blood stream. Excessive exposures may produce lung damage.
Skin	The solid/dust causes slight skin irritation with redness, itchiness and pain. The solid/dust is capable of causing skin sensitisation which may lead to dermatitis. May be harmful if absorbed through the skin.
Eye	Causes slight eye irritation, with smarting, stinging, blurring, tearing, pain and redness.
Carcinogenicity	Not listed in the IARC Monographs.
Reproductive Toxicity	Adverse reproductive effects have occurred in experimental animals. Not considered a reproductive toxin for humans.
Mutagenicity	No evidence of mutagenic effects.
Chronic Effects	Prolonged exposure to barium compounds may cause high blood pressure, airway irritation; damage to the liver, spleen and bone marrow; lung inflammation and scarring, with symptoms of a worsening dry cough, shortness of breath on exertion, increased chest expansion and weakness, stringy phlegm in the cough (delayed onset), more difficulty in breathing (delayed onset), a further loss of lung capacity (delayed onset); benign pneumoconiosis (baritosis). Prolonged or repeated exposure may cause systemic effects. A toxic and fibrogenic activity shown in the development of diffuse, progressive pneumonosclerosis after prolonged inhalation of barium carbonate dust has been reported. Repeated or prolonged exposure to the substance can produce damage to the central nervous system, kidneys, liver and heart. Prolonged or repeated skin contact may cause dermatitis.

Section 12 - Ecological Information

Ecological Information	Due to the poor solubility of the product, no harmful effects on plants and/or aquatic organisms are to be expected when handled and used with due care and attention.
Environmental Fate	Behaviour in environmental compartments: Distribution: log P (o/w): -1.32
Bioaccumulative Potential	No bioaccumulation is to be expected (log P(o/w) <1.0).
Environmental Protection	Do not allow to enter waters, waste water, or soil!
Acute Toxicity - Fish	LC50 (Gambusia affinis- Mosquito fish): 6950 mg/l/96 h.

Section 13 - Disposal Considerations

Disposal Considerations	Whatever cannot be saved for recovery or recycling should be disposed of according to relevant local, state and federal government regulations.

Section 14 - Transport Information

Transport Information	Dangerous Goods of Class 6 (Toxic and Infectious Substances) are incompatible in a placard load with any of the following: -Class 1, Class 3, if the Class 3 dangerous goods are nitromethane, Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids; and are incompatible with food and food packaging in any quantity.
ADG UN Number	1564
ADG Proper Shipping Name	BARIUM COMPOUND, N.O.S.
ADG Transport Hazard Class	6.1
ADG Packing Group	II

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EPG Number	6A5
IERG Number	37

Section 15 - Regulatory Information

Regulatory Information	Listed in the Australian Inventory of Chemical Substances (AICS).
Poisons Schedule	S6

Section 16 - Any Other Relevant Information

Literature References	'Standard for the Uniform Scheduling of Medicines and Poisons .', Commonwealth of Australia. National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'. Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals'. Standards Australia, 'SAA/SNZ HB 76:2010 Dangerous Goods - Initial Emergency Response Guide', Standards Australia/Standards New Zealand. Safe Work Australia, 'Hazardous Chemical Information System'. Safe Work Australia, 'National Code of Practice for the Labelling of Safe Work Hazardous Substances'. Safe Work Australia, 'National Exposure Standards for Atmospheric Contaminants in the Occupational Environment'.
Contact Person/Point	Paul McCarthy Ph. (08) 8440 2000 DISCLAIMER STATEMENT: All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However, since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.
Empirical Formula & Structural Formula	$BaCO_3$

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