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

Product Name **BARIUM DIPHENYLAMINESULFONATE**

Classified as hazardous

Section 1 - Identification

Product Identifier BARIUM DIPHENYLAMINESULFONATE

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 Indicator in oxidation-reduction titrations: colourless (reduced) to violet/pale blue (oxidised).

Other Names

Name	Product Code
Diphenylamine-4-sulfonic acid barium salt	
BARIUM DIPHENYLAMINESULFONATE LR	BL124
4-(Phenylamino)benzenesulfonic acid barium salt	
4-Anilinobenzene sulfonic acid barium salt	

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 - Inhalation: Category 4
Acute Toxicity - Oral: Category 4

Signal Word WARNING

Hazard Statement (s)
H302 Harmful if swallowed.
H332 Harmful if inhaled.

Pictogram (s) Exclamation mark

Precautionary Statement – Prevention
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.

Precautionary Statement – Response
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P330 Rinse mouth.
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a

	position comfortable for breathing. P312 Call a POISON CENTER or doctor/physician if you feel unwell.
Precautionary Statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.
Other Information	The barium ion is a muscle poison causing stimulation and then paralysis. The barium ion is a chemical antagonist of potassium, and it appears that the symptoms of barium poisoning are attributable to Ba2+-induced hypokalemia. The effect is probably due to a transfer of K+ from extracellular to intracellular compartments.

Section 3 - Composition and Information on Ingredients

Ingredients	Name	CAS	Proportion
	Barium Diphenylamine-4-Sulphonate	6211-24-1	100 %

Section 4 - First Aid Measures

Inhalation	If breathing has stopped, apply artificial respiration. Remove from exposure, rest and keep warm. If breathing is difficult, give oxygen. Seek medical attention in severe cases, or if exposure has been great.
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. In severe cases or if irritation persists, seek medical attention.
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek medical advice.
First Aid Facilities	Maintain eyewash fountain and safety shower in work area.
Advice to Doctor	Treat symptomatically and supportively. Laxative: Sodium sulfate (1 tablespoon/¼L water)
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 764 766) or a doctor at once.

Section 5 - Firefighting Measures

Hazards from Combustion Products	May liberate toxic and irritating fumes/gases including carbon oxides, sulfur oxides, nitrogen oxides, ammonia, nitric acid, sulfuric acid, hydrogen cyanide and some barium oxides.
Specific Methods	Use extinguishing media most appropriate for the surrounding fire. 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. Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.
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 dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. Minimize dust generation and accumulation. Keep container closed. Use with adequate ventilation. Gloves, eye protection and protective clothing should be worn. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Keep away from incompatibles such as oxidizing agents, acids. Under no circumstances eat, drink or smoke while handling this material.

Conditions for safe storage, including any incompatibilities
Store in tightly sealed containers, in a cool, dry, well-ventilated area away from incompatible materials. Store away from foodstuffs and sources of heat. Protected from physical damage. Light sensitive. Protect from light and moisture. 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).

Section 8 - Exposure Controls and Personal Protection

Occupational Exposure Limit (OEL) Values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Barium Diphenylamine-4-Sulphonate			0.5		Barium, soluble compounds (as Ba)

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: Plastic or rubber 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.

Footwear
Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

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 grey crystals, crystalline solid or powder.
Odour	Almost odourless.
Melting Point	300 °C
Boiling Point	Decomposes.
Solubility in Water	Soluble.
pH	~5.9 (10 g/l, H2O, 20 °C) (slurry)
Partition Coefficient: n-octanol/water (log value)	log P(o/w): 2.93 (calculated)(Lit.)
Density	Bulk density: ~220 kg/m³
Flammability	Non combustible material.
Molecular Weight	633.9

Section 10 - Stability and Reactivity

Chemical Stability	Stable at room temperature in closed containers under normal storage and handling conditions. May discolour on exposure to light.
Possibility of Hazardous Reactions	Reacts with acids to form dangerous fumes. Violent reactions possible with strong oxidizing agents.
Conditions to Avoid	Strong heating, excess heat, dust generation, exposure to light and incompatible materials.
Incompatible Materials	Strong oxidizing agents, acids. Diphenylamine (CAS #122-39-4), a comparable compound, reacts violently with hexachloromelamine, trichloromelamine and strong oxidizers.
Hazardous Decomposition Products	Irritating and toxic fumes and gases, carbon monoxide, sulfur oxides, nitrogen oxides, carbon dioxide, ammonia, nitric acid, sulfuric acid, hydrogen cyanide and some barium oxides.
Hazardous Polymerization	Will not occur.

Section 11 - Toxicological Information

Ingestion	Toxic if swallowed. This substance can be absorbed into the body by ingestion. May cause irritation of the mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract, with nausea, vomiting, colicky diarrhea, abdominal pain, increased salivation, followed by myocardial and general muscular stimulation with tingling in the extremities, trembling, faintness, or paralysis of arms and legs. May affect the cardiovascular system (hypothermia, increase in blood pressure, dysrhythmia, chest pain, cardiac arrest, bradycardia (subdued cardiac activity)), respiration (coughing, dyspnoea, shallow breathing, cyanosis), nervous system (dizziness, paralysis, paresthesia, seizures), liver (hepatocellular damage), kidneys (renal failure), spleen, bone marrow and gastrointestinal system. Barium poisoning may be characterized by marked hypokalemia which results in skeletal muscle paralysis. Systemic effects include shock and circulatory collapse. The following applies to aromatic amines in general: systemic effects: methaemoglobinaemia with headache, cardiac dysrhythmia, drop in blood pressure, dyspnoea, and spasms, principal symptom: cyanosis (blue discolouration of the blood).
Inhalation	Harmful if inhaled. Causes respiratory tract irritation, with symptoms including sore throat, coughing and shortness of breath. May cause moderate systemic effects such as methaemoglobinaemia by absorption.
Skin	Causes skin irritation, with possible redness and pain. Intensive contact with skin may cause dermatitis. Comparable compounds may be absorbed through the skin. Harmful if absorbed through skin.
Eye	Causes stinging, blurring, tearing and irritation.

Carcinogenicity	Not listed in the IARC Monographs.
Reproductive Toxicity	No reproductive studies were found for barium in humans.
Mutagenicity	No evidence of mutagenic properties.
Chronic Effects	The barium ion is a muscle poison causing stimulation and then paralysis. May cause myocardial and general muscular stimulation with tingling in the extremities. Prolonged exposure to dusts may cause breathing difficulties. May cause damage to the kidneys, lungs, heart and cardiovascular system.

Section 12 - Ecological Information

Ecotoxicity	Marine and/or freshwater pollutant. Hazard for drinking water!
Mobility	Distribution: log P(o/w): 2.93 (calculated)(Lit.)
Bioaccumulative Potential	Limited bioaccumulation is to be expected (log P(o/w) < 3).
Environmental Protection	Do not allow to enter waters, waste water, or soil!

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	Classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG); by the IATA Air Transport Dangerous Goods Regulations; and by the IMDG (International Maritime Dangerous Goods) Code. 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. - (Barium Diphenulaminesulfonate)
ADG Transport Hazard Class	6.1
ADG Packing Group	III
Hazchem Code	2Z
EPG Number	6B5
IERG Number	37

Section 15 - Regulatory Information

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	$(C_{12}H_{10}NO_3S)_2Ba$; $C_{24}H_{20}BaN_2O_6S_2$

...End Of MSDS...