Infosafe No™ 1CHF2	Issue Date :August 2021	RE-ISSUED by CHEMSUPP

Product Name **SODIUM AZIDE**

Classified as hazardous

1. Identification

GHS Product Identifier	SODIUM AZIDE
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	Air bag inflation, preservative in diagnostic medicinals, intermediate in explosive manufacture, bactericide and laboratory reagent.

Other Names

Name	Product Code
Hydrozoic acid, sodium salt	
SODIUM AZIDE AR	SA189

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.

2. Hazard Identification

GHS classification of the substance/mixture	Hazardous to the Aquatic Environment - Acute Hazard: Category 1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1 Acute Toxicity - Oral: Category 2
Signal Word (s)	DANGER
Hazard Statement (s)	H300 Fatal if swallowed. H410 Very toxic to aquatic life with long lasting effects. AUH031 Contact with acids liberates toxic gas
Pictogram (s)	Skull and crossbones, Environment

Precautionary statement – Prevention	P264 Wash thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment.
Precautionary statement – Response	P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P330 Rinse mouth.
Precautionary statement – Storage	P405 Store locked up.
Precautionary statement – Disposal	P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition/information on ingredients

Ingredients	Name	CAS	Proportion
	Sodium azide	26628-22-8	100 %

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 immediate medical advice.

Skin Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek medical attention in severe cases.

Eye contact Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek 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.
Accidental ingestion of sodium azide is potentially life threatening.
Treatment includes gastric lavage, followed by saline catharsis. EKG and blood pressure monitoring and support are recommended.

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

5. Fire-fighting measures

Hazards from Combustion Products Sodium nitrides, sodium, some sodium oxides, nitrogen gas, very toxic fumes of nitrogen oxides. Hazardous decomposition products formed upon contact with water: reacts with protic solvents (water, alcohols, amines, etc.) to release toxic hydrazoic acid. Hazardous decomposition products formed upon contact with elementary metals: reacts with heavy metal ions (silver, copper, lead) to produce explosive heavy metal azides.

Specific Methods Note: Foams contain water and may react with the material, releasing corrosive, flammable or poisonous gases.
Small fire: Use CO2, dry chemical, dry sand or alcohol foam. If safe to do so, move undamaged containers from fire area.
Large fire: Use alcohol foam, fog or water spray - Do not use water jets.
Fight fire from protected position or use unmanned hose holders or monitor nozzles.
Cool containers with flooding quantities of water until well after fire is out. Avoid getting water inside containers.

Specific hazards arising from the chemical Will burn but will not ignite readily. Will react with water to produce poisonous and/or corrosive gases. Fire will produce irritating, poisonous and/or corrosive gases.

Hazchem Code 2X

Decomposition Temp. 275 °C

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

6. Accidental release measures

Spills & Disposal ELIMINATE all ignition sources (no smoking, flares, sparks or flames) within at least 50m. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if safe to do so - Prevent entry into waterways, drains or confined areas. Vapour-suppressing foam may be used to control vapours - Water spray may be used to knock down or divert vapour clouds - Do not direct water at spill or source of leak.
Small spill

	Cover with DRY earth, sand or other non-combustible material followed by plastic sheet to minimize spreading or contact with rain. Use clean, non-sparking tools to collect material and place it into loosely-covered plastic containers for later disposal.
Personal Precautions	Evacuate the area of all non-essential personnel. 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.

7. Handling and storage

Precautions for Safe Handling	Avoid ingestion and inhalation. Avoid contact with skin, eyes and clothing. Avoid prolonged or repeated exposure. Minimise dust accumulation and generation. Prior to working with sodium azide you should be trained on its proper handling and storage. Use smallest possible amounts in designated areas with adequate ventilation. Under no circumstances eat, drink or smoke while handling this material. If ingested, seek medical advice immediately and show the container or the label. In case of insufficient ventilation, wear suitable respiratory equipment. Wear appropriate protective equipment to prevent inhalation, skin and eye contact. Do not wear contact lenses when working with chemicals. Wash hands and face thoroughly after working with material. Contaminated clothing should be removed and washed before re-use. Keep locked up. Protect container from physical damage, friction or shock. Keep dry. Keep away from heat and all sources of ignition. Ground all equipment containing material. Take precautionary measures against electrostatic discharges. Keep away from incompatibles such as metals. Do not use with metal spatula or other metal items. Prolonged contact with copper or lead, especially in drainage systems, may result in formation of explosive azides. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Do not apply sodium azide with other pesticides or fertilizers. Empty containers pose a fire risk and may be hazardous since they retain product residues (dust, solids), evaporate the residue under a fume hood and observe all warnings and precautions listed for the product. For laboratory use only. Not for drug, food, or household use. Keep out of reach of children.
Conditions for safe storage, including any incompatibilities	Keep dry and protect from direct sunlight. Hygroscopic. Store away from combustible materials.
Corrosiveness	Very corrosive to aluminium, moderate to copper and lead.
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).
Unsuitable Materials	Metal containers.

8. Exposure controls/personal protection

Occupational exposure limit values

Name	STEL		TWA		
	mg/m3	ppm	mg/m3	ppm	Footnote
Sodium azide			0.3	0.11	Peak limitation

Other Exposure Information

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
A time weighted average (TWA) has been established for Sodium azide (Safe Work Australia) of 0.3 (Peak limitation) mg/m³, (0.11 ppm). 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. Peak

	Limitation - a ceiling concentration which should not be exceeded over a measurement period which should be as short as possible but not exceeding 15 minutes.
Appropriate engineering controls	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 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	Wear gloves of impervious material conforming to AS/NZS 2161: Occupational protective gloves - Selection, use and maintenance. Final choice of appropriate glove type will vary according to individual circumstances. This can include methods of handling, and engineering controls as determined by appropriate risk assessments. Avoid skin contact when removing gloves from hands, do not touch the gloves outer surface. Dispose of gloves as hazardous waste.
Personal Protective Equipment	Personal protective equipment should not solely be relied upon to control risk and should only be used when all other reasonably practicable control measures do not eliminate or sufficiently minimise risk. Guidance in selecting personal protective equipment can be obtained from Australian, Australian/New Zealand or other approved standards.
Body Protection	Clean impervious clothing should be worn. 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.

9. Physical and chemical properties

Form	Solid
Appearance	Colourless crystals.
Odour	Odourless.
Decomposition Temperature	275 °C
Melting Point	275 °C (decomposes).
Solubility in Water	Very soluble (41.7 g/100 ml (17 °C)), hydrolyzes to form hydrazoic acid.
Solubility in Organic Solvents	Soluble in liquid ammonia; slightly soluble in alcohol; hydrolyzes to form hydrazoic acid. Insoluble in ether.
Specific Gravity	1.846 @ 20 °C
pH	pH 10 (@ 65 g/l @ 25°C).
Vapour Pressure	1 Pa @ 20 °C
Vapour Density (Air=1)	2.2
Flammability	Combustible - water reactive.
Explosion Properties	If involved in a fire, may explode. Decomposes explosively upon heating, shock, concussion, or friction. Reacts with both copper and lead to produce explosive azides. Explosions in laboratory plumbing containing these metals is possible.

Molecular Weight 65.01

10. Stability and reactivity

Chemical Stability Stable under ordinary conditions of use and storage. Stable in water in the absence of light. May decompose violently or explosively upon heating above 405 °C, shock, concussion, or friction. May be shock-sensitive.

Conditions to Avoid Heat, temperatures above 275 °C, flames, ignition sources, light, friction, mechanical shock, strong impact, moisture, water, contamination and incompatibles.

Incompatible Materials Halogenated solvents, strong acids (such as hydrochloric, sulfuric and nitric), acid chlorides, many heavy metals such as lead, copper, mercury, silver, gold, or their salts, metal halides, chromyl chloride, hydrazine, barium carbonate, bromine, carbon disulfide, dimethyl sulfate, dibromomalonitrile, benzoyl chloride plus potassium hydroxide, chromyl chloride, water/carbon dioxide, water with heat, ammonium chloride + trichloroacetonitrile, phosgene, cyanuric chloride, 2,5-dinitro-3-methylbenzoic acid + oleum, trifluoroacryloyl fluoride.

Hazardous Decomposition Products Sodium nitrides, sodium, some sodium oxides, nitrogen gas, very toxic fumes of nitrogen oxides; (with water, alcohols, amines, etc.) toxic hydrazoic acid; (with elementary metals: heavy metal ions (silver, copper, lead)) explosive heavy metal azides.

Possibility of hazardous reactions May react vigorously with acids to form hydrazoic acid which is an explosive. May form extremely sensitive compounds with heavy metals (such as lead, silver, mercury, brass and copper) or their salts. Reaction with barium carbonate forms cyanide ion requiring careful control of temp at 630 °C to prevent explosions. Reaction with trifluoroacryloyl fluoride produced an unidentified highly explosive solid. Reaction with carbon disulfide and water produced sodium azidodithioformate, which is explosive, with sensitivity to shock and heat. Reaction with nitrogen-diluted bromine vapour, forming bromine azide, is often explosive. Reaction with chromyl chloride is explosive. Reaction with benzoyl chloride in a potassium hydroxide solution is spontaneous with evolution of heat. Reaction with strong nitric acid is energetic. Violent, explosive reaction with dimethyl sulfate, at a pH below 5, at which acidity, hydrazoic acid, a powerful explosive, readily forms. Reaction with dibromomalononitrile produces a product that is extremely sensitive to light shock. Reaction of water with strongly heated sodium azide caused a violent reaction, due to the formation of metallic sodium or sodium nitride in azide. Violent reaction with barium carbonate, sulfuric acid (CH3)2SO4.

Hazardous Polymerization Will not occur.

11. Toxicological Information

Acute Toxicity - Oral LD50 (rat): 27 mg/kg (toxicologically determinant component).

Acute Toxicity - Dermal LD50 (rabbit): 20 mg/kg.

Ingestion Fatal if swallowed. Toxic if swallowed. Causes gastrointestinal irritation with nausea, vomiting and diarrhea. May cause rapid onset of symptoms, such as hypotension (abnormally low blood pressure), tachycardia (rapid heart rate), tachypnea (quick, shallow breathing), hypothermia (low body temperature), pulmonary edema, restlessness, convulsions, severe headache, reduced body pH, collapse and death.

Inhalation Toxic by dust inhalation. Dust is irritating to the respiratory tract and mucous membranes. May cause sore throat, coughing, dizziness, shortness of breath, and fainting. Rapidly absorbed through inhalation. Symptoms may parallel ingestion. The vapour of hydrazoic acid may be present where sodium azide is handled. Symptoms of acute exposure to hydrazoic acid include eye irritation, headache, dramatic decrease in blood pressure, weakness, pulmonary oedema, and collapse.

Skin Toxic by skin contact. Causes irritation, redness, and pain. Risk of skin absorption. If absorbed, causes symptoms similar to those of ingestion.

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Eye	Causes severe irritation, redness, pain, and blurred vision. Contact with dust or vapour may cause systemic toxic effects.
Respiratory sensitisation	Not classified based on available information.
Skin Sensitisation	Not classified based on available information.
Germ cell mutagenicity	Not classified based on available information.
Carcinogenicity	Not listed in the IARC Monographs. Not classified based on available information.
Reproductive Toxicity	Not classified based on available information.
STOT-single exposure	Not classified based on available information.
STOT-repeated exposure	Not classified based on available information.
Chronic Effects	Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion.
Serious eye damage/irritation	Not classified based on available information.
Skin corrosion/irritation	Not classified based on available information.

12. Ecological information

Ecotoxicity	Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment. Forms toxic mixtures in water, dilution measures notwithstanding. Herbicidal effect. Nematocidal effect.
Persistence and degradability	Methods for the determination of biodegradability are not applicable to inorganic substances.
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! Hazardous to the Aquatic Environment - Acute Hazard: Category 1 Hazardous to the Aquatic Environment - Long-Term Hazard: Category 1

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.

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.
U.N. Number	1687
UN proper shipping name	SODIUM AZIDE
Transport hazard class(es)	6.1
Hazchem Code	2X
Packing Group	II
EPG Number	6A6
IERG Number	39
Environmental Hazards	Highly toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment. Forms toxic mixtures in water, dilution measures notwithstanding. Herbicidal effect. Nematocidal effect.

15. Regulatory information

Regulatory Information All the constituents of this product are listed on the Australian Inventory of Chemical Substances (AICS), or exempted. Not listed under WHS Regulation 2011, Schedule 10 - Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Poisons Schedule Not Scheduled

16. Other 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:
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