

SAFETY DATA SHEET

[Required under safety and health regulations for shipping and handling]

Version: 2023
Date Updated: Jan 24, 2023

SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION -----

Product Name	Sodium Azide
Product Code(s)	DB0613
Recommended Use	For Laboratory Research Use Only Not for Human or Animal Drug Use
Supplier	Bio Basic Inc.
Address	20 Konrad Crescent, Markham, Ontario, Canada, L3R 8T4
Telephone	(905) 474 4493
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For Chemical Emergency Phone#	(416) 995 9730

SECTION 2. ----- HAZARDS IDENTIFICATION -----

Classification of the substance or mixture

GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Acute toxicity, Oral (Category 2), H300
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 1), H310
Specific target organ toxicity - repeated exposure, Oral (Category 2), Brain, H373
Short-term (acute) aquatic hazard (Category 1), H400
Long-term (chronic) aquatic hazard (Category 1), H410

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)
H300 + H310 + H330
H373

Fatal if swallowed, in contact with skin or if inhaled.
May cause damage to organs (Brain) through prolonged or repeated exposure if swallowed.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing.
P284	Wear respiratory protection.
P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P302 + P352 + P310	IF ON SKIN: Wash with plenty of water. Immediately call a

P304 + P340 + P310	POISON CENTER/doctor. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
P314	Get medical advice/ attention if you feel unwell.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P391	Collect spillage.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC) or not covered by GHS

Sodium Azide may react with lead and copper plumbing to form highly explosive metal azides.,
Rapidly absorbed through skin.

SECTION 3. - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -

Chemical Name	EC No.	CAS-No	Weight %
Sodium azide	247-852-1	26628-22-8	<100

SECTION 4. - - - - - FIRST-AID MEASURES- - - - -

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5. - - - - - FIRE FIGHTING MEASURES - - - - -

Extinguishing media

Suitable extinguishing media

Sand Special powder against metal fire Cement.

Unsuitable extinguishing media

Foam Water

Special hazards arising from the substance or mixture

Sodium oxides

Not combustible.

Ambient fire may liberate hazardous vapors.

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6. - - - - - ACCIDENTAL RELEASE MEASURES - - - - -**Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7. - - - - - HANDLING AND STORAGE - - - - -**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Work under hood. Do not inhale substance/mixture.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): 6.1B: Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

Specific end use(s)

Apart from the uses mentioned in section 1; no other specific uses are stipulated.

SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION - - - - -**Control parameters****Components with workplace control parameters**

Components	CAS-No.	Value	Control parameters	Basis
Sodium azide	26628-22-8	(c)	0.3 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks				
		(c)	0.29 mg/m ³	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)

		C	0.11 ppm	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
		C	0.29 mg/m3	Canada. British Columbia OEL
		C	0.11 ppm	Canada. British Columbia OEL
		C	0.29 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		(c)	0.11 ppm	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
		C	0.29 mg/m3	USA. ACGIH Threshold Limit Values (TLV)
		C	0.11 ppm	USA. ACGIH Threshold Limit Values (TLV)

Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material:

Nitrile rubber

Minimum layer thickness: 0.11 mm Break through time: 480 min

Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M)

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - -

Information on basic physical and chemical properties

- | | |
|---|--|
| a) Appearance | Form: crystalline
Colour: white |
| b) Odour | odourless |
| c) Odour Threshold | No data available |
| d) pH | 10.0 at 65.0 g/l at 25.0 °C (77.0 °F) |
| e) Melting point/freezing point | Melting point/range: 370 - 425 °C (698 - 797 °F) - ASTM E 537-76 - Decomposition |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | 300.0 °C (572.0 °F) - open cup |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | The product is not flammable. - Flammability (solids) |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapour pressure | No data available |
| l) Vapour density | No data available |
| m) Relative density | 1.85 g/cm ³ at 20.0 °C (68.0 °F) |
| n) Water solubility | 408 g/l at 20 °C (68 °F) |
| o) Partition coefficient: octanol/water | Not applicable for inorganic substances |
| p) Auto-ignition temperature | 309 °C (588 °F) at 1,013 hPa - Relative self-ignition temperature for solids |
| q) Decomposition temperature | 370 - 425 °C (698 - 797 °F) - 0.8 kJ/kg |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

Other safety information

Bulk density	0.8 kg/m ³
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SECTION 10. -----STABILITY AND REACTIVITY -----

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

A risk of explosion and/or of toxic gas formation exists with the following substances:

Heavy metals, Bromine, Acid, carbon disulfide, Lead.

Conditions to avoid

An explosion occurred when a mixture of sodium azide, methylene chloride, dimethyl sulfoxide, and sulfuric acid were being concentrated on a rotary evaporator.

Strong heating (decomposition). Exposure to moisture

Incompatible materials

Halogenated hydrocarbon, Metals, Acids, Acid chlorides, Hydrazine, Dimethyl sulfate, Inorganic acid chlorides, Strong oxidizing agents, Aluminium, Heavy metals

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sodium oxides Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 27 mg/kg

Remarks: (RTECS)

LC50 Inhalation - Rat - male and female - 4 h - 0.054 - 0.52 mg/l (US-EPA)

LD50 Dermal - Rabbit - 20 mg/kg

Remarks: (RTECS)

No data available

Skin corrosion/irritation

Skin - In vitro study Result: No skin irritation (OECD Test Guideline 439)

Serious eye damage/eye irritation

Eyes - Bovine cornea

Result: No eye irritation - 4 h (OECD Test Guideline 437)

Respiratory or skin sensitisation

Local lymph node assay (LLNA) - Mouse Result: negative (OECD Test Guideline 429)

Germ cell mutagenicity

No data available

Mutagenicity (mammal cell test): chromosome aberration. Chinese hamster ovary cells
Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Oral - May cause damage to organs through prolonged or repeated exposure. - Brain

Aspiration hazard

No data available

Additional Information

RTECS: VY8050000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Nausea, Headache, Vomiting, Laboratory experiments in animals have shown sodium azide to produce a profound hypotensive effect, demyelination of myelinated nerve fibers in the central nervous system, testicular damage, blindness, attacks of rigidity, and hepatic and cerebral effects., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

Toxicity

Toxicity to fish flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 2.75 mg/l - 96 h
(OECD Test Guideline 203)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata - 0.35 mg/l - 96h
(OECD Test Guideline 201)

Toxicity to bacteria

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects. No data available

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. 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.

Contaminated packaging

Dispose of as unused product.

SECTION 14. ----- TRANSPORT INFORMATION -----

DOT (US)

UN number: 1687 Class: 6.1 Packing group: II
Proper shipping name: Sodium azide
Reportable Quantity (RQ): 1000 lbs
Poison Inhalation Hazard: No

IMDG

UN number: 1687 Class: 6.1 Packing group: II EMS-No: F-A, S-A Proper shipping
name: SODIUM AZIDE
Marine pollutant : yes

IATA

UN number: 1687 Class: 6.1 Packing group: II
Proper shipping name: Sodium azide

SECTION 15. ----- REGULATORY INFORMATION -----

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

SECTION 16. ----- OTHER INFORMATION -----

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

Issuing Date: 04-Jul-2019

End of SDS



Bio Basic Inc.

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CERTIFICATE OF ANALYSIS

Product	Sodium Azide
Grade	Reagent
Product Code	DB0613
Formula	NaN ₃
MW	65.01
CAS#	26628-22-8
Lot No	

Test Items	Specifications	Results
Appearance	White crystalline powder	
Solubility(2g in 10ml ddH ₂ O)	Complete, Clear, Colorless	
Assay	≥99.0%	
Loss on Drying	≤1.0%	
Iron	≤0.001%	

Storage: Room temperature. Protect from moisture.

QF21 Rev 2016

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