



# MATERIAL SAFETY DATA SHEET SDS/MSDS

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : **Sodium Azide**

CAS-No. : 26628-22-8

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Industrial & for professional use only.

### 1.3 Details of the supplier of the safety data sheet

Company : Bio-Chem Chemicals  
5455 Nicholson Road, Science Market  
Ambala Cantt, 133001 - Haryana  
+91 82952 41953  
info@biofinechemical.com - www.biofinechemical.com

### 1.4 Emergency telephone number

Emergency Phone # : +91 99921 51495 (10.00am - 06.30pm) (Office Hours)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Dermal (Category 1), H310

Specific target organ toxicity - repeated exposure, Oral (Category 2), Brain, H373

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

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

### 2.2 Label elements

#### Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word : Danger

Hazard statement(s)

H300 + H310

Fatal if swallowed or in contact with skin

|                                      |                                                                                               |
|--------------------------------------|-----------------------------------------------------------------------------------------------|
| H373                                 | 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)           |                                                                                               |
| P273                                 | Avoid release to the environment.                                                             |
| P280                                 | Wear protective gloves/ protective clothing/ eye protection/ face protection.                 |
| P301 + P310 + P330                   | IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. Rinse mouth.             |
| P302 + P352 + P310                   | IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER or doctor/ physician. |
| P391                                 | Collect spillage.                                                                             |
| P501                                 | Dispose of contents/ container to an approved waste disposal plant.                           |
| Supplemental Hazard information (EU) |                                                                                               |
| EUH032                               | Contact with acids liberates very toxic gas.                                                  |

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. 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

### 3.1 Substances

|                  |                         |
|------------------|-------------------------|
| Formula          | : $\text{N}_3\text{Na}$ |
| Molecular weight | : 65,01 g/mol           |
| CAS-No.          | : 26628-22-8            |
| EC-No.           | : 247-852-1             |
| Index-No.        | : 011-004-00-7          |

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component           |              | Classification              | Concentration |
|---------------------|--------------|-----------------------------|---------------|
| <b>Sodium azide</b> |              |                             |               |
| CAS-No.             | 26628-22-8   | Acute Tox. 2; Acute Tox. 1; | <= 100 %      |
| EC-No.              | 247-852-1    | STOT RE 2; Aquatic Acute 1; |               |
| Index-No.           | 011-004-00-7 | Aquatic Chronic 1; H300,    |               |
|                     |              | H310, H373, H400, H410      |               |
|                     |              | M-Factor - Aquatic Acute: 1 |               |

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

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### 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.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

**4.3 Indication of any immediate medical attention and special treatment needed**  
No data available**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Dry powder

**5.2 Special hazards arising from the substance or mixture**  
Sodium oxides**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

No data available

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

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

**6.2 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.

**6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For disposal see section 13.

**SECTION 7: Handling and storage****7.1 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. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Never allow product to get in contact with water during storage. Do not store near acids. Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

### 8.2 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.

##### 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

### 9.1 Information on basic physical and chemical properties

|                                                 |                                                       |
|-------------------------------------------------|-------------------------------------------------------|
| a) Appearance                                   | Form: crystalline<br>Colour: white                    |
| b) Odour                                        | No data available                                     |
| c) Odour Threshold                              | No data available                                     |
| d) pH                                           | 10 at 65 g/l at 25 °C                                 |
| e) Melting point/freezing point                 | 275 °C                                                |
| f) Initial boiling point and boiling range      | No data available                                     |
| g) Flash point                                  | No data available                                     |
| 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                              | 0,01 hPa at 20 °C                                     |
| l) Vapour density                               | No data available                                     |
| m) Relative density                             | 1,850 g/cm3                                           |

|    |                                        |                                      |
|----|----------------------------------------|--------------------------------------|
| n) | Water solubility                       | 65 g/l at 20 °C - completely soluble |
| o) | Partition coefficient: n-octanol/water | No data available                    |
| p) | Auto-ignition temperature              | 309 °C at 1.013 hPa                  |
| q) | Decomposition temperature              | 300 °C -                             |
| r) | Viscosity                              | No data available                    |
| s) | Explosive properties                   | Not explosive                        |
| t) | Oxidizing properties                   | No data available                    |

## 9.2 Other safety information

|              |                       |
|--------------|-----------------------|
| Bulk density | 0,8 kg/m <sup>3</sup> |
|--------------|-----------------------|

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 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.

### 10.5 Incompatible materials

Halogenated hydrocarbon, Metals, Acids, Acid chlorides, Hydrazine, Dimethyl sulfate, Inorganic acid chlorides

### 10.6 Hazardous decomposition products

Other decomposition products - No data available  
In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

No data available

Dermal: No data available

#### Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)

Result: No skin irritation - 15 min

#### Serious eye damage/eye irritation

Eyes - Bovine cornea

Result: No eye irritation - 4 h

(OECD Test Guideline 437)

#### Respiratory or skin sensitisation

in vivo assay - Mouse

Result: Does not cause skin sensitisation.

(OECD Test Guideline 429)

#### Germ cell mutagenicity

No data available

## **Carcinogenicity**

Carcinogenicity - Rat - male and female - Oral

No significant adverse effects were reported

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.

## **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**

Repeated dose toxicity Rat - male and female - Oral - LOAEL : 5 mg/kg

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**

### **12.1 Toxicity**

Toxicity to fish mortality LC50 - Pimephales promelas (fathead minnow) - 5,46 - 96 h  
mg/l (OECD Test Guideline 203)

Toxicity to algae static test EC50 - Pseudokirchneriella subcapitata - 0,35 - 96 h  
mg/l (OECD Test Guideline 201)

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **12.6 Other adverse effects**

Very toxic to aquatic life with long lasting effects.

## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

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

### 14.1 UN number

ADR/RID: 1687

IMDG: 1687

IATA: 1687

### 14.2 UN proper shipping name

ADR/RID: SODIUM AZIDE

IMDG: SODIUM AZIDE

IATA: Sodium azide

### 14.3 Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

### 14.4 Packaging group

ADR/RID: II

IMDG: II

IATA: II

### 14.5 Environmental hazards

ADR/RID: yes

IMDG Marine pollutant: yes

IATA: no

### 14.6 Special precautions for user

No data available

## SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

|             |                                                                                                     |
|-------------|-----------------------------------------------------------------------------------------------------|
| EUH032      | Contact with acids liberates very toxic gas.                                                        |
| H300        | Fatal if swallowed.                                                                                 |
| H300 + H310 | Fatal if swallowed or in contact with skin                                                          |
| H310        | Fatal in contact with skin.                                                                         |
| H373        | May cause damage to organs (/*_ORG_REP_ORAL/*) through prolonged or repeated exposure if swallowed. |
| H400        | Very toxic to aquatic life.                                                                         |
| H410        | Very toxic to aquatic life with long lasting effects.                                               |