

## Material Safety Data Sheet

### **Sodium Azide**

#### **1 - Product and Company Information**

Product Name: Sodium Azide Date: 11<sup>th</sup> January 2018 Version: Discofinechem4

Discovery Fine Chemicals Ltd.

Unit 4A, Old Forge Road

Wimborne, Dorset. BH21 7RR

United Kingdom

Telephone +44-(0)1202 874517

Fax +44-(0)845 0944 385

#### **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

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.

##### **Classification according to EU Directives 67/548/EEC or 1999/45/EC**

T+ Very toxic R28

R32

N Dangerous for the environment

R50/53

T+ Very toxic R27

For the full text of the R-phrases 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

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.

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, bio-accumulative and toxic (PBT), or very persistent and very bio-accumulative (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.

## Hazard symbol(s)



## R-phrase(s)

R27 Very toxic in contact with skin

R28 Very toxic if swallowed.

R32 Contact with acids liberates very toxic gas.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

## S-phrase(s)

S28 After contact with skin, wash immediately with plenty of soap and water.

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60 This material and its container must be disposed of as hazardous waste.

S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Formula: N3Na Molecular weight: 65.01g/mol

Cas No: 26628-22-8 E.C.No: 247-852-1 Index-No. : 011-004-00-7

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

Component: Sodium azide

Cas No: 26628-22-8 E.C.No: 247-852-1 Index No: 011-004-00-7

Classification: Acute Tox. 2; Acute Tox. 1; Aquatic Acute 1; Aquatic; Chronic 1; H300 + H310, H410, EUH032

Concentration <= 100 %

### Hazardous ingredients according to Directive 1999/45/EC

Component: Sodium azide

Cas No: 26628-22-8 E.C.No: 247-852-1 Index No: 011-004-00-7

Classification: T+, N, R27 - R28 - R32 - R50/53 Concentration: <= 100 %

For the full text of the H-Statements and R-Phrases 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)** - No data available

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Components with workplace control parameters**

Component: **Sodium azide**

Cas No: 26628-22-8 Value:TWA Control Parameters: 0.1 mg/m<sup>3</sup> Basis: Europe. Commission Directive 2000/39/

EC establishing a first list of indicative occupational exposure limit values

Remarks Identifies the possibility of significant uptake through the skin

Indicative

Value: STEL Control Parameters: 0.3 mg/m<sup>3</sup> Basis: Europe. Commission Directive

2000/39/EC establishing a first list of indicative occupational exposure limit values

Identifies the possibility of significant uptake through the skin

Indicative

Value:TWA Control parameters: 0.1 mg/m<sup>3</sup> Basis: UK. EH40 WEL – Workplace Exposure Limits

Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

Value:STEL Control parameters: 0.3 mg/m<sup>3</sup> Basis:UK. EH40 WEL – Workplace Exposure Limits

Can be absorbed through skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.

### **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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril®

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:Dermatril®

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de,

test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

**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.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

a) Appearance - Form: crystalline, 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) - no data available

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/cm<sup>3</sup>
- n) Water solubility - 65 g/l at 20 °C - completely soluble
- o) Partition coefficient: noctanol/water - no data available
- p) Auto-ignition temperature - no data available
- q) Decomposition temperature - 300 °C
- r) Viscosity - no data available
- s) Explosive properties - no data available
- 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**

LD50 Oral - Rabbit - 10 mg/kg

LC50 Inhalation - Rat - 37 mg/m<sup>3</sup>

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye:Other.

Behavioral: Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration: Structural or functional change in trachea or bronchi.

LD50 Dermal - Rabbit - 20 mg/kg

**Skin corrosion/irritation** - No data available

**Serious eye damage/eye irritation** - No data available

**Respiratory or skin sensitisation** - No data available

**Germ cell mutagenicity** - No data available

**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.

**Reproductive toxicity** - No data available

**Specific target organ toxicity - single exposure** - No data available

**Specific target organ toxicity - repeated exposure** - No data available

**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**

### **12.1 Toxicity** - No data available

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia pulex (Water flea) - 4.2 mg/l - 48 h

**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 bio-accumulative (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. 1907/2006.

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

No data available

### **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.**

Acute Tox. Acute toxicity

Aquatic Acute Acute aquatic toxicity

Aquatic Chronic Chronic aquatic toxicity

EUH032 Contact with acids liberates very toxic gas.

H300 Fatal if swallowed.

H300 + H310 Fatal if swallowed or in contact with skin

### **Full text of R-phrases referred to under sections 2 and 3**

N Dangerous for the environment

T+ Very toxic

R27 Very toxic in contact with skin.

R28 Very toxic if swallowed.

R32 Contact with acids liberates very toxic gas.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### **Further information**

### **WARRANTY**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product.

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