


|   |                                   |                |            |
|---|-----------------------------------|----------------|------------|
|  | <b>MATERIAL SAFETY DATA SHEET</b> | MSDS No.       | M-01       |
|   | Sodium Sulphide 60%               | Effective From | 18/07/2020 |

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

### 1.1. Product identifier

|                           |                       |
|---------------------------|-----------------------|
| Product Name              | Disodium sulphide     |
| CAS No                    | 1313-82-2             |
| EC No                     | 215-211-5             |
| REACH registration number | 01-2119513694-38-XXXX |

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

|                      |   |
|----------------------|---|
| Recommended Use      | Used as flotation agents, intermediates, pH-regulating agents, reducing agents, coloring agents, dyes, processing aid and not otherwise listed. |
| Uses advised against | No information available.   |

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

|                     |   |
|---------------------|---|
| Only representative | REACH24H CONSULTING GROUP   |
| Address             | Paramount Court, Corrig Road, Sandyford, Dublin 18, Ireland   |
| E-mail              | Info@reach24h.com   |
| Supplier            | <b>BLOOMCHEMAG BV</b>   |
| Address             | Sint – Antoniusstraat 16 b1,<br>B-2400, Mol, Belgium  |
| Phone               | +91 72919 70499   |
| E-mail              | <a href="mailto:Corporate@bloomchemag.com">Corporate@bloomchemag.com</a> / <a href="mailto:Info@bloomchemag.com">Info@bloomchemag.com</a> |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

|                                   |             |               |
|-----------------------------------|-------------|---------------|
| Corrosive to metals               | Category 1  | - (H290)      |
| Acute toxicity - Oral             | Category 3  | - (H301)      |
| Acute toxicity - Dermal           | Category 3  | - (H311) Skin |
| corrosion/irritation              | Category 1B | - (H314)      |
| Serious eye damage/eye irritation | Category 1  | - (H318)      |
| Acute aquatic toxicity            | Category 1  | - (H400)      |

### 2.2. Label elements

## Symbols/Pictograms



## Signal word

Danger

## Hazard Statements

H290 - May be corrosive to metals.

H301 - Toxic if swallowed.

H311 - Toxic in contact with skin.

H314 - Causes severe skin burns and eye damage. H400 - Very toxic to aquatic life.

## Precautionary Statements

P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor.

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501 - Dispose of contents/container in accordance with local/regional/national/international regulations.

## EU Specific Hazard Statements

EUH031 - Contact with acids liberates toxic gas.

EUH071 - Corrosive to the respiratory tract.

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.1 Substance**

| Chemical Name     | EC No     | CAS No    | Weight-%        | Classification according to Regulation (EC) No. 1272/2008 [CLP]  |
|-------------------|-----------|-----------|-----------------|--|
| Disodium sulphide | 215-211-5 | 1313-82-2 | >= 96.0 - < 100 | Met. Corr. 1 (H290)<br>Acute Tox. 3 (H301)<br>Acute Tox. 3 (H311)<br>Skin Corr. 1B (H314)<br>Eye Dam. 1 (H318)<br>Aquatic Acute 1 (H400)<br>EUH031<br>EUH071 |
| Sodium carbonate  | 207-838-8 | 497-19-8  | > 0.0 - <= 2.0  | Eye Irrit. 2 (H319)  |

**SECTION 4: First aid measures****4.1. Description of first aid measures****General advice**

Remove from exposure, lie down. If breathing is irregular or stopped, administer artificial respiration. Take off contaminated clothing and shoes immediately.

**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician. If unconscious place in recovery position and seek medical advice.

**Skin Contact**

Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Wash off

immediately with soap and plenty of water. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water. If swallowed, do not induce vomiting - seek medical advice.

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

Toxic if swallowed. Toxic in contact with skin. Causes severe skin burns and eye damage.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

**Unsuitable extinguishing media**

No information available.

**5.2. Special hazards arising from the substance or mixture**

In case of fire hazardous decomposition products may be produced such as: sulfur oxides, hydrogen sulfide.

**5.3. Advice for firefighters**

In the event of fire and/or explosion, do not breathe fumes, wear self-contained breathing apparatus. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate personnel to safe areas. Keep away from heat, sparks, flame and other sources of ignition. Ensure adequate ventilation, especially in confined areas. Use personal protection recommended in Section 8. Avoid generation of dust. Do not breathe dust. Avoid contact with eyes. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

**6.2. Environmental precautions**

Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

**6.3. Methods and material for containment and cleaning up**

Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Sweep up and shovel into suitable containers for disposal.

**6.4. Reference to other sections** See

Section 7 for more information

See section 8 for more information

See section 13 for more information

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Take off all contaminated clothing immediately. Wash hands thoroughly after handling. Do not breathe dust or spray mist. Avoid contact with the skin and the eyes. Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Wear protective gloves/protective clothing/eye protection/face protection. Keep container tightly closed. Keep away from heat.

Emergency eye wash fountains and emergency showers should be available in the immediate vicinity. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feeding stuffs.

### 7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and animal feeding stuffs. Do not store near acids. Incompatible with oxidizing agents. Store in a corrosive resistant container with a resistant inner liner. Suitable materials for containers: stainless steel; polyethylene; polypropylene; PVC; glass; natural rubber. Keep container tightly closed and in a cool, well-ventilated place. Keep only in original container. Normal measures for preventive fire protection.

### 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

| Chemical Name                        | Latvia                     | France | Finland | Germany | Italy |
|--------------------------------------|----------------------------|--------|---------|---------|-------|
| Disodium sulphide (CAS #: 1313-82-2) | TWA: 0.2 mg/m <sup>3</sup> | -      | -       | -       | -     |

### Derived No Effect Level (DNEL)

|                | Route      | Type of effect                | DNEL                    |
|----------------|------------|-------------------------------|-------------------------|
| For the worker | Inhalation | Systemic effects - Long-term  | 13.84 mg/m <sup>3</sup> |
|                | Inhalation | Systemic effects - Short-term | 3.2 mg/m <sup>3</sup>   |
|                | Inhalation | Local effects - Long-term     | 1.6 mg/m <sup>3</sup>   |

### Predicted No Effect Concentration (PNEC)

| Compartment | PNEC                                 |
|-------------|--------------------------------------|
| Water       | Freshwater: 0.27 µg/L                |
|             | Marine water: 0.27 µg/L              |
|             | Intermittent releases: 0.27 µg/L     |
| Sediment    | Freshwater: 17.6 mg/kg sediment dw   |
|             | Marine water: 17.6 mg/kg sediment dw |
| STP         | 16 µg/L                              |

### 8.2. Exposure controls

#### Engineering Controls

Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations. Remove all sources of ignition.

#### Personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Hand Protection

Wear suitable protective clothing. Wear suitable gloves. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves should be replaced at first signs of wear.  
Material: Polyvinylchloride; Break through time: ≥8 h; Glove thickness: 0.5mm. Material: Nitrile rubber; Break through time: ≥8 h; Glove thickness: 0.35mm.

Skin and body protection

Suitable protective clothing.

Respiratory protection

Required if dust is released: Half mask with a particle filter P2 (EN 143).

**Environmental exposure controls**

Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform respective authorities.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

|                                       |   |
|---------------------------------------|---|
| <b>Appearance</b>                     | Crystals  |
| <b>Color</b>                          | Clear, white, yellow, pink or red   |
| <b>Odor</b>                           | Odor of rotten eggs   |
| <b>Odor Threshold</b>                 | Not determined  |
| <b>pH</b>                             | 12.9 (20 °C, 10 g/L)  |
| <b>Melting point/freezing point</b>   | 69 - 93 °C (ca.997 hPa)   |
| <b>Boiling point / boiling range</b>  | The test item has no boiling point, since the test substance oxidized after melting and water evaporation to sulfur |
| <b>Flash point</b>                    | Not determined  |
| <b>Evaporation rate</b>               | Not determined  |
| <b>Flammability (solid)</b>           | Not flammable   |
| <b>Flammability Limit in Air</b>      | Not determined  |
| <b>Vapor Pressure</b>                 | Not determined  |
| <b>Vapor density</b>                  | Not determined  |
| <b>Density</b>                        | Not determined  |
| <b>Relative density</b>               | 1.64 (21 °C)  |
| <b>Bulk density</b>                   | Not determined  |
| <b>Specific gravity</b>               | Not determined  |
| <b>Water solubility</b>               | 178 g/L (20 °C)   |
| <b>Partition coefficient (LogPow)</b> | Not determined  |
| <b>Autoignition temperature</b>       | > 430 °C  |
| <b>Decomposition temperature</b>      | Not determined  |
| <b>Kinematic viscosity</b>            | Not determined  |
| <b>Dynamic viscosity</b>              | Not determined  |
| <b>Explosive properties</b>           | Not an explosive  |
| <b>Oxidizing properties</b>           | Not determined  |

**9.2. Other information**

No information available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Stable under recommended storage conditions.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

Exothermic reaction with strong acids.

**10.4. Conditions to avoid**

High temperature. Thermal decomposition: 920 °C. Incompatible materials.

**10.5. Incompatible materials**

Acids, oxidizing agents, metals, water.

**10.6. Hazardous decomposition products**

Hydrogen sulfide, sulfur oxides.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects Acute toxicity**

| Chemical Name                        | Oral LD50          | Dermal LD50 | Inhalation LC50 |
|--------------------------------------|--------------------|-------------|-----------------|
| Disodium sulphide (CAS #: 1313-82-2) | 1122 mg/kg ( Rat ) | -           | -               |
| Sodium carbonate (CAS #: 497-19-8)   | 4090 mg/kg ( Rat ) | -           | -               |

For clarification of this seeming discrepancy, read-across to sodium hydrogensulfide as an analogous substance is made (see chapter 5.1.3 for read-across justification): there, two reliable studies exist which however both yield an LD50 < 250 mg/kg bw, thus necessitating a classification as "toxic if swallowed".

in accordance with section 8.5.3, column 2, Annex VIII of Regulation (EC) No. 1907/2006, an in-vivo acute dermal toxicity study does not need to be conducted since the test substance is classified as corrosive to skin (sodium sulfide has a pH value  $\geq 11.5$  in aqueous solution). Toxic in contact with skin according to the current harmonised classification.

**Skin corrosion/irritation**

Corrosive. Causes severe skin burns.

**Serious eye damage/eye irritation**

Corrosive. Causes severe eye damage.

**Sensitization**

Corrosive to skin, no sensitization testing needs to be conducted.

Corrosive to respiratory tract, no sensitization testing needs to be conducted.

**Germ cell mutagenicity**

All available reliable studies showed no genetic toxicity for sodium sulfide.

**Carcinogenicity**

No adequate data from carcinogenicity studies are available.

**Reproductive toxicity**

All available reliable studies showed no toxicity to reproduction, developmental toxicity or teratogenicity of hydrogen sulfide. Based on read-across from H<sub>2</sub>S to Na<sub>2</sub>S, classification is not proposed for sodium sulfide.

**STOT - single exposure**

No information available.

**STOT - repeated exposure**

No information available.

**Aspiration hazard**

No information available.

**SECTION 12: Ecological information****12.1. Toxicity**

| Chemical Name | Algae/aquatic plants EC50 | Fish LC50 | Crustacea EC50 |
|---------------|---------------------------|-----------|----------------|
|               |                           |           |                |

|                                      |  |   |   |
|--------------------------------------|--|---|---|
| Disodium sulphide (CAS #: 1313-82-2) | EC50: 0.104 mg/L/4h (Skeletonema costatum) (H <sub>2</sub> S)<br>NOEC: 0.041 mg/L/4h (Skeletonema costatum) (H <sub>2</sub> S) | LC50: 0.0027 mg/L/96h (Puntius gonionotus) (H <sub>2</sub> S)<br>NOEC: 0.0046 mg/L/826 d (Lepomis macrochirus) (H <sub>2</sub> S) | LC50: 0.02 mg/L/96h (Baetis vagans) (freshwater invertebrates) (H <sub>2</sub> S)<br>LC50: 0.032 mg/L/96h (Penaeus indicus) (marine water invertebrates) (H <sub>2</sub> S) |
| Sodium carbonate (CAS #: 497-19-8)   | 242 mg/L/120h (Nitzschia)  | 300 mg/L/96h (Lepomis macrochirus)  | 265 mg/L/48h (Daphnia magna)  |

**12.2. Persistence and degradability**

No information needed for an inorganic substance.

**12.3. Bioaccumulative potential**

BCF = 1.6 L/kg ww

**12.4. Mobility in soil**

According to Column 2 of Annex VII of the REACH regulation no biodegradation tests should be conducted when the substance is inorganic.

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

Disodium sulphide is an inorganic substance, thus a PBT and vPvB assessment is not required.

**12.6. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

|                                     |   |
|-------------------------------------|---|
| Waste from residues/unused products | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging              | Disposal should be in accordance with applicable regional, national and local laws and regulations. |

**SECTION 14: Transport information**

|  |                           |
|--|---------------------------|
| <b>14.1 UN Number</b>  | 1849                      |
| <b>14.2 Proper shipping name</b>   | SODIUM SULPHIDE, HYDRATED |
| <b>14.3 Hazard Class</b>   | 8                         |
| <b>14.4 Packing Group</b>  | II                        |
| <b>14.5 Environmental hazards</b>  | Marine pollutant          |
| <b>14.6 Special precautions</b>  | No information available  |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | Not applicable            |

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
European Union**

| Component                                       | EINECS/ELINCS | SVHC candidates | RESTRICTIONS - REACH TITLE VIII |
|---|---------------|-----------------|---------------------------------|
| Disodium sulphide 1313-82-2 ( >= 96.0 - < 100 ) | EINECS        | -               | -                               |
| Sodium carbonate 497-19-8 ( > 0.0 - <= 2.0 )    | EINECS        | -               | -                               |

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

#### International Inventories

| Component                               | TSCA | DSL/NDSL | ENCS | IECSC | KECL | PICCS | AICS |
|---|------|----------|------|-------|------|-------|------|
| Disodium sulphide 1313-82-2 ( 60 - 70 ) | X    | DSL      | X    | X     | X    | X     | X    |
| Sodium carbonate 497-19-8 ( <2 )        | X    | DSL      | X    | X     | X    | X     | X    |

"-" Not Listed

"X" Listed

#### 15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance

### SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

**Issue Date** 07-Jan-2016  
**Revision date** 18-Jul-2019  
**Revision Note** Not applicable

#### Key or legend to abbreviations and acronyms used in the safety data sheet

**TWA** - TWA (time-weighted average) **STEL**

- STEL (Short Term Exposure Limit) **Ceiling** -

Maximum limit value

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances **IECSC** -

China Inventory of Existing Chemical Substances **KECL** - Korean

Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

#### Full text of H-Statements referred to under section 3

H290 - May be corrosive to metals.

H301 - Toxic if swallowed.

H311 - Toxic in contact with skin.

H314 - Causes severe skin burns and eye damage. H318 -

Causes severe eye damage.

H400 - Very toxic to aquatic life.

EUH031 - Contact with acids liberates toxic gas.

EUH071 - Corrosive to the respiratory tract.



**Disclaimer**

The information provided in this Material Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.