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

1.1 Product identifiers
Product name : Sodium metabisulfite

Product Number : 31448
Brand : Sigma-Aldrich
Index-No. : 016-063-00-2
REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
CAS-No. : 7681-57-4

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet
Company : Sigma-Aldrich Chemie BV
           Stationsplein 4
           3331 LL ZWIJNDRECHT
           NETHERLANDS
Telephone : +31 78-620-5411
Fax : +31 78-620-5421
E-mail address : eurtechserv@sial.com

1.4 Emergency telephone number
Emergency Phone # : 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008
Acute toxicity, Oral (Category 4), H302
Serious eye damage (Category 1), H318

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
Xn Harmful R22
Xi Irritant R41
           R31
           R52

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)
H302 Harmful if swallowed.
H318 Causes serious eye damage.

Precautionary statement(s)
P280 Wear eye protection/ face protection.
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. Rinse mouth.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard information (EU)
EUH031 Contact with acids liberates 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.

SECTION 3: Composition/information on ingredients

3.1 Substances
Synonyms: Sodium disulfite
Sodium pyrosulfite

Formula: \( \text{Na}_2\text{O}_5\text{S}_2 \)
Molecular weight: 190.11 g/mol
CAS-No.: 7681-57-4
EC-No.: 231-673-0
Index-No.: 016-063-00-2

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium metabisulphite</td>
<td>Acute Tox. 4; Eye Dam. 1; H302, H318, EUH031</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>7681-57-4</td>
<td></td>
</tr>
<tr>
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</tr>
</tbody>
</table>

Hazardous ingredients according to Directive 1999/45/EC

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<td>Xn, R22 - R31 - R41 - R52</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td>CAS-No.</td>
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<td></td>
</tr>
</tbody>
</table>

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. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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
No data available

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.

Air and moisture sensitive.
Storage class (TRGS 510): Non Combustible Solids

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
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

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.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance
   Form: powder
   Colour: colourless

b) Odour
   pungent

c) Odour Threshold
   No data available

d) pH
   4.5 at 50 g/l at 20 °C

e) Melting point/freezing point
   Melting point/range: > 300 °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
   No data available

l) Vapour density
   No data available

m) Relative density
   1,480 g/cm³

n) Water solubility
   650 g/l at 20 °C

o) Partition coefficient: n-octanol/water
   log Pow: -3.699 at 25 °C

p) Auto-ignition temperature
   No data available

q) Decomposition temperature
   No data available

r) Viscosity
   No data available

s) Explosive properties
   No data available

t) Oxidizing properties
   No data available

9.2 Other safety information

   Bulk density
   1.100 - 1.200 kg/m³

SECTION 10: Stability and reactivity

10.1 Reactivity
   No data available

10.2 Chemical stability
   Exposure to moisture
   Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
   No data available

10.4 Conditions to avoid
   Exposure to air, Heat

10.5 Incompatible materials
   Strong acids, Strong oxidizing agents
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 - Rat - 1.540 mg/kg  
(OECD Test Guideline 401)  
LD50 Dermal - Rat - > 2.000 mg/kg

**Skin corrosion/irritation**  
No data available

**Serious eye damage/eye irritation**  
Eyes - Rabbit  
Result: Risk of serious damage to eyes.  
(OECD Test Guideline 405)

**Respiratory or skin sensitisation**  
Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

**Germ cell mutagenicity**  
No data available

**Carcinogenicity**  
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Sodium metabisulphite)

**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: UX8225000  
Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting., chest pain, Difficulty in breathing, Gastrointestinal discomfort, Vomiting, Diarrhoea, Persons with allergies and/or asthma may exhibit hypersensitivity to sulfites., 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  
LC50 - Oncorhynchus mykiss (rainbow trout) - 150 - 220 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates  
EC50 - Daphnia magna (Water flea) - 89 mg/l - 24 h

Toxicity to algae  
IC50 - Desmodesmus subspicatus (green algae) - 48 mg/l - 72 h

Toxicity to bacteria  
- Pseudomonas putida - 56 mg/l - 17 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 bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6  **Other adverse effects**
Harmful to aquatic life.

### 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:** -  
**IMDG:** -  
**IATA:** -

14.2  **UN proper shipping name**
**ADR/RID:** Not dangerous goods  
**IMDG:** Not dangerous goods  
**IATA:** Not dangerous goods

14.3  **Transport hazard class(es)**
**ADR/RID:** -  
**IMDG:** -  
**IATA:** -

14.4  **Packaging group**
**ADR/RID:** -  
**IMDG:** -  
**IATA:** -

14.5  **Environmental hazards**
**ADR/RID:** no  
**IMDG Marine pollutant:** no  
**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  
- **EUH031** Contact with acids liberates toxic gas.  
- **Eye Dam.** Serious eye damage  
- **H302** Harmful if swallowed.  
- **H318** Causes serious eye damage.
Full text of R-phrases referred to under sections 2 and 3

Xn Harmful
R22 Harmful if swallowed.
R31 Contact with acids liberates toxic gas.
R41 Risk of serious damage to eyes.
R52 Harmful to aquatic organisms.

Further information
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