SIGMA-ALDRICH

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Sodium metabisulfite
Product Number: 255556
Brand: Sigma-Aldrich
Supplier: Sigma-Aldrich Corporation
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone: +1 600-525-5832
Fax: +1 600-525-5892
Emergency Phone # (For both supplier and manufacturer): (314) 776-9555
Preparation Information: Product Safety - Americas Region
1-800-525-8956

2. HAZARDS IDENTIFICATION

Emergency Overview
OSHA Hazards: Harmful by ingestion, irritant
GHS Classification:
- Acute toxicity, Oral (Category 4)
- Acute toxicity, Inhaled (Category 5)
- Serious eye damage (Category 1)
- Acute aquatic toxicity (Category 3)

GHS Label elements, including precautionary statements:

Signal word: Danger
Hazard statement(s):
- H302: Harmful if swallowed.
- H313: May be harmful in contact with skin.
- H318: Causes serious eye damage.
- H402: Harmful to aquatic life.

Precautionary statement(s):
- P260: Wear protective gloves/eye protection/face protection.
- P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification:
- Health hazard: 2
- Flammability: 0
- Physical hazards: 0

NFPA Rating:
- Health hazard: 2

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Sodium disulfite
Form: Na2S2O5
Molecular Weight: 156.11 g/mol

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium metabisulfite</td>
<td></td>
</tr>
<tr>
<td>Csx No.</td>
<td>768-57-4</td>
</tr>
<tr>
<td>EC No.</td>
<td>231-67-0</td>
</tr>
<tr>
<td>Index No.</td>
<td>016-663-00-2</td>
</tr>
</tbody>
</table>

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

If swallowed:
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability:
Not flammable or combustible.

Suitable extinguishing media:
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Dry powder.

Special protective equipment for firefighters:
Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions:
Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions
Prevent further leakage or spillage if it is 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. Do not flush with water. Keep in suitable, closed containers for disposal.

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.

Conditions for safe storage
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. Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium metabisulphite</td>
<td>7581-57-4</td>
<td>STEL</td>
<td>5 mg/m³</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
<td></td>
<td></td>
<td>Upper Respiratory Tract irritation Not classifiable as a human carcinogen</td>
</tr>
<tr>
<td>TWA</td>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5 mg/m³</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
</tr>
</tbody>
</table>

Personal protective equipment

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).

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves 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.

Eye 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 and 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.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
powder

10. STABILITY AND REACTIVITY

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

Possibility of hazardous reactions
no data available

Conditions to avoid
Exposure to air, Heat.

Materials to avoid
Strong acids, Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
LD50 Oral - rat - 1,540 mg/kg

Inhalation LC50
no data available

Dermal LD50
LD50 Dermal - rat - > 2,000 mg/kg

Other information on acute toxicity
no data available
Skin corrosion/irritation
no data available

Serious eye damage/eye irritation
Eyes - rabbit: Risk of serious damage to eyes - OECD Test Guideline 405

Respiratory or skin sensitization
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)
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
no data available

Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation
May be harmful if inhaled. Causes respiratory tract irritation.

INGESTION
Harmful if swallowed.

Skin
Harmful if absorbed through skin. Causes skin irritation.

Eyes
Causes eye irritation.

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

Synergistic effects
no data available

Additional Information
RTECS: UX825550

12. ECOLOGICAL INFORMATION

Toxicity

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

Toxicity to bacteria
- Pseudomonas putida - 56 mg/l - 17 h

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DCT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Harmful by ingestion, Irritant

SARA 302 Component(s)
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Component(s)
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (300 ppm) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard

Massachusetts Right To Know Components

Sodium metabisulphite
CAS-No. 7691-57-4
Revision Date 2007-03-01

Pennsylvania Right To Know Components

Sodium metabisulphite
CAS-No. 7691-57-4
Revision Date 2007-03-01

New Jersey Right To Know Components

Sodium metabisulphite
CAS-No. 7691-57-4
Revision Date 2007-03-01
Sodium metabisulphite

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information
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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a
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additional terms and conditions of sale.