

SAFETY DATA SHEET

1. Identification

Product identifier: SODIUM BISULFATE

Other means of identification Product No.: 7432, 3534

Recommended use and restriction on use

Recommended use: Not determined. Restrictions on use: Not determined.

Details of the supplier of the safety data sheet

| | Avantor Performance Materials, LLC. 3477 Corporate Parkway Center Valley, PA 18034 |
|-----------------|--|
| Telephone: | |
| | Customer Service: 855-282-6867 |
| Fax: | 610-573-2610 |
| Contact Person: | Environmental Health & Safety |
| E-mail: | info@avantormaterials.com |

Emergency telephone number:

CHEMTREC: 1-800-424-9300 within US and Canada

2. Hazard(s) identification

Hazard Classification

Health Hazards

Serious Eye Damage/Eye Irritation Category 1

Unknown toxicity - Health

| Acute toxicity, oral | 100 % |
|-----------------------------------|-------|
| Acute toxicity, dermal | 100 % |
| Acute toxicity, inhalation, vapor | 100 % |
| Acute toxicity, inhalation, dust | 100 % |
| or mist | |

Unknown toxicity - Environment

| Acute hazards to the aquatic | 100 % |
|--------------------------------|-------|
| environment | |
| Chronic hazards to the aquatic | 100 % |
| environment | |

Label Elements



Hazard Symbol:

| Signal Word: | Danger |
|--|---|
| Hazard Statement: Precautionary Statements | Causes serious eye damage. |
| Prevention: | Wear eye protection/face protection. |
| Response: | 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/doctor. |
| Other hazards which do not result in GHS classification: | None. |

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | Content in percent (%)* |
|--|--------------------------|------------|-------------------------|
| SODIUM BISULFATE (HYDRATED FORM) | | 10034-88-5 | 90 - 100% |
| * All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume | | | |

All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

| General information: | Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance. |
|--|---|
| Ingestion: | Rinse mouth thoroughly. Get medical attention if symptoms occur. |
| Inhalation: | Move to fresh air. Get medical attention if symptoms occur. |
| Skin Contact: | Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. |
| Eye contact: | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately. |
| Most important symptoms/effects, acute and delayed | |
| Symptoms: | Causes serious eye damage. |

Hazards: None known.



Indication of immediate medical attention and special treatment needed

| Treatment: | Treat symptomatically. |
|--|--|
| 5. Fire-fighting measures | |
| General Fire Hazards: | No unusual fire or explosion hazards noted. |
| Suitable (and unsuitable) extingu | ishing media |
| Suitable extinguishing media: | Use fire-extinguishing media appropriate for surrounding materials. |
| Unsuitable extinguishing media: | Avoid water in straight hose stream; will scatter and spread fire. |
| Specific hazards arising from the chemical: | During fire, gases hazardous to health may be formed. |
| Special protective equipment and | d precautions for firefighters |
| Special fire fighting procedures: | Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out. |
| Special protective equipment for fire-fighters: | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| 6. Accidental release measures | 6 |
| Personal precautions, protective equipment and emergency procedures: | Keep unauthorized personnel away. Use personal protective equipment. See Section 8 of the SDS for Personal Protective Equipment. |
| Methods and material for containment and cleaning up: | Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. |
| Notification Procedures: | Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved. |
| Environmental Precautions: | Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. |
| 7. Handling and storage | |
| Precautions for safe handling: | Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dust. Wash thoroughly after handling. |
| Conditions for safe storage, including any incompatibilities: | Keep containers tightly closed. Store in cool, dry place. Store in a well- ventilated place. |

8. Exposure controls/personal protection

Control Parameters Occupational Exposure Limits



None of the components have assigned exposure limits. Appropriate Engineering No data available. Controls Individual protection measures, such as personal protective equipment General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye/face protection: Wear safety glasses with side shields (or goggles). **Skin Protection** Hand Protection: Use suitable protective gloves if risk of skin contact. Other: Wear suitable protective clothing. **Respiratory Protection:** In case of inadequate ventilation, use respiratory protection. Hygiene measures: Provide eyewash station and safety shower. Always observe good personal

| | hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned. |
|----------------------|---|
| 9. Physical and chem | ical properties |
| Appearance | |

| Appoulation | |
|--|---------------------|
| Physical state: | Solid |
| Form: | Crystals or powder. |
| Color: | Colorless |
| Odor: | Odorless |
| Odor threshold: | No data available. |
| pH: | 1,4 |
| Melting point/freezing point: | 58 °C |
| Initial boiling point and boiling range: | No data available. |
| Flash Point: | No data available. |
| Evaporation rate: | No data available. |
| Flammability (solid, gas): | No data available. |
| Upper/lower limit on flammability or explose | ive limits |
| Flammability limit - upper (%): | No data available. |
| Flammability limit - lower (%): | No data available. |
| Explosive limit - upper (%): | No data available. |
| Explosive limit - lower (%): | No data available. |
| Vapor pressure: | No data available. |
| Vapor density: | No data available. |
| Density: | 2,10 g/ml (20 °C) |
| Relative density: | 2,1 (20 °C) |
| Solubility(ies) | |
| Solubility in water: | 670 g/l |
| Solubility (other): | No data available. |
| | |

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| Partition coefficient (n-octanol/wa Auto-ignition temperature: Decomposition temperature: Viscosity: | ater): No data available. No data available. No data available. No data available. | |
|---|--|--|
| Other information Molecular weight: | 128.08 a/mal | |
| | 138,08 g/mol | |
| 10. Stability and reactivity | | |
| Reactivity: | No dangerous reaction known under conditions of normal use. | |
| Chemical Stability: | Material is unstable under normal conditions. | |
| Possibility of hazardous reactions: | Hazardous polymerization does not occur. The substance is hygroscopic and will absorb water by contact with the moisture in the air. | |
| Conditions to avoid: | Contact with incompatible materials. Moisture. Avoid conditions which create dust. | |
| Incompatible Materials: | Strong bases. | |
| Hazardous Decomposition Products: | Sulfur dioxide gas may be liberated from the product. | |

| 11. Toxicological information | |
|-------------------------------|--|
| | |

| Information on likely routes of ex Inhalation: | May cause irritation to the respiratory system. |
|---|---|
| Skin Contact: | May cause irritation. |
| Eye contact: | Causes serious eye damage. |
| Ingestion: | May cause irritation of the gastrointestinal tract. |
| | |

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

| Oral Product: | No data available. |
|---------------------------------------|----------------------------|
| Dermal Product: | No data available. |
| Inhalation Product: | No data available. |
| Repeated dose toxicity Product: | No data available. |
| Skin Corrosion/Irritation Product: | May cause skin irritation. |



| Serious Eye Damage/Eye Irritation Product: Causes serious eye damage. | | |
|---|--|--|
| Respiratory or Skin Sensitizatio Product: | | |
| Carcinogenicity Product: | This substance has no evidence of carcinogenic properties. | |
| IARC Monographs on the Evaluation of Carcinogenic Risks to Humans: No carcinogenic components identified | | |
| US. National Toxicology Program (NTP) Report on Carcinogens: No carcinogenic components identified | | |
| ACGIH Carcinogen List: No carcinogenic components identified | | |
| Germ Cell Mutagenicity | | |
| In vitro Product: | No mutagenic components identified | |
| In vivo Product: | No mutagenic components identified | |
| Reproductive toxicity Product: | No components toxic to reproduction | |
| Specific Target Organ Toxicity - Single ExposureProduct:No data available. | | |
| Specific Target Organ Toxicity - Repeated Exposure Product: No data available. | | |
| Aspiration Hazard Product: | Not classified | |
| Other effects: | None known. | |

12. Ecological information

Ecotoxicity:

| Fish Product: | No data available. |
|---|--------------------|
| Aquatic Invertebrates Product: | No data available. |
| Chronic hazards to the aquatic environment: | |
| Fish | |

No data available.



| Aquatic Invertebrates Product: | No data available. |
|---|--|
| Toxicity to Aquatic Plants Product: | No data available. |
| Persistence and Degradability | |
| Biodegradation Product: | There are no data on the degradability of this product. |
| BOD/COD Ratio Product: | No data available. |
| Bioaccumulative potential Bioconcentration Factor (Be Product: | CF) No data available on bioaccumulation. |
| Partition Coefficient n-octanol / Product: | water (log Kow) No data available. |
| Mobility in soil: | The product is water soluble and may spread in water systems. |
| Other adverse effects: | The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. |
| 13. Disposal considerations | |
| Disposal instructions: | Discharge, treatment, or disposal may be subject to national, state, or local laws. |
| Contaminated Packaging: | Since emptied containers retain product residue, follow label warnings even after container is emptied. |
| 14. Transport information | |
| TDG | |
| UN Number: UN Proper Shipping Name: | UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(SODIUM BISULFATE) |
| Transport Hazard Class(es) Class: Label(s): Packing Group: Marine Pollutant: Special precautions for user: | 8 8 III No Not determined. |
| IMDG | |
| UN Number: UN Proper Shipping Name: | UN 3260 CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.(SODIUM BISULFATE) |
| Transport Hazard Class(es) Class: Label(s): EmS No.: | 8 8 F-A, S-B |
| Packing Group: Marine Pollutant: | III No |
| | 7/9 |

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| Special precautions for user: | Not determined. |
|---|---|
| IATA UN Number: UN Proper Shipping Name: Transport Hazard Class(es): | UN 3260 Corrosive solid, acidic, inorganic, n.o.s.(SODIUM BISULFATE) |
| Class: | 8 |
| Label(s): | 8 |
| Packing Group: | III |
| Marine Pollutant: | No |
| Special precautions for user: | Not determined. |
| Cargo aircraft only: | Allowed. |

Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable

15. Regulatory information

Canada Federal Regulations

List of Toxic Substances (CEPA, Schedule 1) Not Regulated

Export Control List (CEPA 1999, Schedule 3)

Not Regulated

National Pollutant Release Inventory (NPRI)

Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements

NPRI PT5 Not Regulated

Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4) NPRI Not Regulated

Greenhouse Gases

Not Regulated

Controlled Drugs and Substances Act

| CA CDSI | Not Regulated |
|------------|---------------|
| CA CDSII | Not Regulated |
| CA CDSIII | Not Regulated |
| CA CDSIV | Not Regulated |
| CA CDSV | Not Regulated |
| CA CDSVII | Not Regulated |
| CA CDSVIII | Not Regulated |

Precursor Control Regulations

Not Regulated

International regulations

Montreal protocol

Not applicable



Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

Inventory Status:

Australia AICS: Canada DSL Inventory List: EINECS, ELINCS or NLP: Japan (ENCS) List: China Inv. Existing Chemical Substances: Korea Existing Chemicals Inv. (KECI): Canada NDSL Inventory: Philippines PICCS: US TSCA Inventory: New Zealand Inventory of Chemicals: Japan ISHL Listing: Japan Pharmacopoeia Listing: On or in compliance with the inventory On or in compliance with the inventory On or in compliance with the inventory Not in compliance with the inventory. On or in compliance with the inventory Not in compliance with the inventory. Not in compliance with the inventory. On or in compliance with the inventory On or in compliance with the inventory On or in compliance with the inventory Not in compliance with the inventory. Not in compliance with the inventory.

| 16.Other information, including date of preparation or last revision | |
|--|---|
| Revision Date: | 18.05.2018 |
| Version #: | 1.1 |
| Further Information: | No data available. |
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