SAFETY DATA SHEET

According to US Regulation 29 CFR 1910.1200 (HazCom 2012)

1. Identification

Product identifier: Sodium Bisulfite

Other means of identification

Product No.: 3557, RMB3556

Recommended restrictions

Recommended use: For Laboratory, Research or Manufacturing Use.
Restrictions on use: Not determined.

Details of the supplier of the safety data sheet

Company Name:	Avantor Performance Materials, LLC
Address:	100 Matsonford Rd, Suite 200 Radnor, PA 19087
Telephone:	Customer Service: 855-282-6867
Contact Person:	Product Information Compliance
E-mail:	info@avantormaterials.com

Emergency telephone number:

CHEMTREC: 1-800-424-9300 within US and Canada (24 hrs/day, 7 days/week)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Oral)	Category 4
Acute toxicity (Dermal)	Category 4
Serious Eye Damage/Eye Irritation	Category 1

Unknown toxicity - Health

Acute toxicity, oral	0 %
Acute toxicity, dermal	0 %
Acute toxicity, inhalation, dust or mist	100 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 3

Unknown toxicity - Environment

Acute hazards to the aquatic environment	0 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:
Harmful if swallowed.
Harmful in contact with skin.
Causes serious eye damage.
Harmful to aquatic life.

Precautionary Statements

Prevention: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

Response: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of water. Call a POISON CENTER/doctor if you feel unwell. Take off contaminated clothing and wash it before reuse. 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.

Disposal: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Sodium bisulfite	7631-90-5	58.00 - 99.00%
Sodium metabisulfite	7681-57-4	1.00 - 42.00%

* 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: Get medical attention if symptoms occur. Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Inhalation: Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration.

Skin Contact: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if irritation persists after washing. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention 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. Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: In case of fire and/or explosion do not breathe fumes.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: None known.

Specific hazards arising from the chemical: Contact with water liberates toxic gas. Fire may produce irritating, corrosive and/or toxic gases.

Special protective equipment and 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

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. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

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. Dike far ahead of larger spill for later recovery and disposal.

Notification Procedures: Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

Environmental Precautions: Do not contaminate water sources or sewer. 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. Do not breathe mist or vapor. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash hands thoroughly after handling. See Section 8 of the SDS for Personal Protective Equipment. Avoid contact with eyes. Avoid contact with skin.

Conditions for safe storage, including any incompatibilities: Do not store in metal containers. Keep in a cool, well-ventilated place. Store in a dry place.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values	Source
Sodium bisulfite	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (2011)
	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Sodium metabisulfite	TWA	5 mg/m3	US. ACGIH Threshold Limit Values (2011)
	REL	5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA	5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	5 mg/m3	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	TWA PEL	5 mg/m3	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)

Appropriate Engineering Controls No data available.

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. An eye wash and safety shower must be available in the immediate work area.

Eye/face protection: Wear safety glasses with side shields (or goggles) and a face shield.

Skin Protection

Hand Protection: Chemical resistant gloves

Other: Wear suitable protective clothing.

Respiratory Protection: In case of inadequate ventilation use suitable respirator.

Hygiene measures:	Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not eat, drink or smoke when using the product. Wash contaminated clothing before reuse.

9. Physical and chemical properties

Appearance

Physical state:	Solid
Form:	Granules
Color:	White
Odor:	Slight sulfur dioxide odor
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	150 °C
Initial boiling point and boiling range:	No data available.
Flash Point:	Not applicable
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Upper/lower limit on flammability or explosive 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:	1.48 g/cm3 (20 °C)
Relative density:	1.48 (20 °C)
Solubility(ies)	
Solubility in water:	Very soluble
Solubility (other):	alcohol: Practically insoluble
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Hazardous polymerization does not occur.
Conditions to avoid:	Heat, sparks, flames. Moisture. Contact with incompatible materials.
Incompatible Materials:	Strong oxidizing agents. Acids. Water. Alkalies. Sodium. Nitrates. Aluminum. Powdered metal.
Hazardous Decomposition Products:	Oxides of sulfur.

11. Toxicological information

Information on likely routes of exposure

Inhalation: May be harmful if inhaled.

Skin Contact: Harmful in contact with skin. Prolonged skin contact may cause temporary irritation.

Eye contact: Causes serious eye damage.

Ingestion: Harmful if swallowed.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral
Product: ATEmix (Rat): 1,481.29 mg/kg

Dermal
Product: ATEmix (Rabbit) 1,418.44 mg/kg

Inhalation
Product: No data available.

Specified substance(s):

Sodium bisulfite	LC 50 (Rat, 4 h): > 5.5 mg/l
Sodium metabisulfite	LC 50 (Rat, 4 h): > 5.5 mg/l

Repeated dose toxicity
Product: No data available.

Skin Corrosion/Irritation
Product: Prolonged skin contact may cause temporary irritation.

Serious Eye Damage/Eye Irritation
Product: Causes serious eye damage.

Respiratory or Skin Sensitization
Product: Not a skin nor a respiratory sensitizer.

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

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):
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 Exposure
Product: 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:

Acute hazards to the aquatic environment:

Fish
Product: No data available.

Specified substance(s):

Sodium bisulfite	LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 240 mg/l LC 50 (Leuciscus idus, 96 h): 215 - 464 mg/l LC 50 (Oncorhynchus mykiss, 96 h): 147 - 215 mg/l LC 50 (Danio rerio, 96 h): 464 - 1,000 mg/l NOAEL (Leuciscus idus, 96 h): 215 mg/l
Sodium metabisulfite	LC 50 (Oncorhynchus mykiss, 96 h): 147 - 215 mg/l LC 50 (Danio rerio, 96 h): 464 - 1,000 mg/l LC 50 (Leuciscus idus, 96 h): 215 - 464 mg/l NOAEL (Danio rerio, 96 h): 215 mg/l NOAEL (Leuciscus idus, 96 h): 215 mg/l

Aquatic Invertebrates
Product: No data available.

Specified substance(s):

Sodium bisulfite	LC 50 (Water flea (Daphnia magna), 48 h): 119 mg/l LC 50 (Pond snail (Lymnaea), 48 h): 59 mg/l EC 50 (Water flea (Daphnia magna), 48 h): 89 mg/l
Sodium metabisulfite	EC 50 (Daphnia magna, 48 h): 74.9 - 89 mg/l

Chronic hazards to the aquatic environment:

Fish

Product:	No data available.
Specified substance(s):	
Sodium bisulfite	NOAEL (Danio rerio, 34 d): >= 316 mg/l
Sodium metabisulfite	NOAEL (Danio rerio, 34 d): >= 316 mg/l

Aquatic Invertebrates

Product:	No data available.
Specified substance(s):	
Sodium bisulfite	NOAEL (Daphnia magna, 21 d): > 10 mg/l
Sodium metabisulfite	NOAEL (Daphnia magna, 21 d): > 10 mg/l

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 (BCF)

Product:	No data available on bioaccumulation.

Partition Coefficient n-octanol / water (log Kow)

Product:	No data available.

Mobility in soil:	The product is water soluble and may spread in water systems.
Other adverse effects:	Harmful to aquatic organisms.

13. Disposal considerations

Disposal instructions:	Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Contaminated Packaging:	Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated.

IMDG

Not regulated.

IATA

Not regulated.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
Sodium bisulfite	5000 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Acute toxicity (any route of exposure)
Serious eye damage or eye irritation

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Sodium metabisulfite	10000 lbs.
Sodium bisulfite	10000 lbs.

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):

Chemical Identity	Reportable quantity
Sodium bisulfite	Reportable quantity: 5000 lbs.

US State Regulations

US. California Proposition 65

No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity
Sodium bisulfite
Sodium metabisulfite

US. Massachusetts RTK - Substance List

Chemical Identity
Sodium bisulfite
Sodium metabisulfite

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity
Sodium bisulfite
Sodium metabisulfite

US. Rhode Island RTK

Chemical Identity
Sodium bisulfite
Sodium metabisulfite

International regulations

Montreal protocol
Not applicable

Stockholm convention
Not applicable

Rotterdam convention
Not applicable

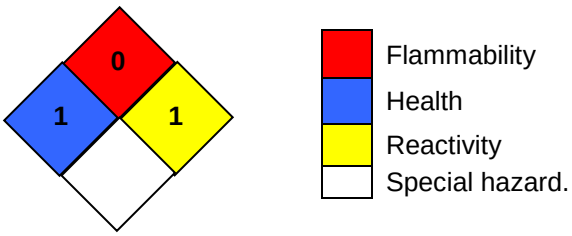
Kyoto protocol
Not applicable

Inventory Status:

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Mexico INSQ:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory

16.Other information, including date of preparation or last revision

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating not possible

Issue Date: 06-15-2021

Revision Information: Not relevant.

Version #:	1.1
Source of information:	Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, information from the Toxicology Data Network (TOXNET), European Chemical Agency (ECHA) substance dossiers, IARC Monographs, US National Toxicology Program data, the Agency for Toxic Substances and Disease Registry, other manufacturer's SDSs and other sources, as appropriate.
Further Information:	No data available.
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