

SODIUM BISULFITE

Material Safety Data Sheet

Mallinckrodt Chemical Inc.

P.O. Box 800

Paris, Kentucky 40362

Emergency Telephone Number
314-539-1600

Effective Date: 04-06-89 Supersedes 01-21-86

PRODUCT IDENTIFICATION:

Synonyms: Sodium acid sulfite; Sulfurous acid, monosodium salt; Sodium
hydrogen sulfite, solidFormula CAS No.: 7631-90-5 Sodium
Bisulfite; 7681-57-4
Sodium Metabisulfite

Molecular Weight: 104.06

Hazardous Ingredients: Not applicable.

Chemical Formula: Usually a mixture
of NaHSO₃ and
Na₂S₂O₅

PRECAUTIONARY MEASURES

WARNING! HARMFUL IF SWALLOWED. MAY CAUSE ALLERGIC REACTION. MAY CAUSE
IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

Avoid breathing dust.

Avoid contact with eyes, skin and clothing.

Wash thoroughly after handling.

For Reagent and Technical Grades: Not For Food Use.

For TAC Grades: Do not use in meats or in foods recognized as a source of
vitamin B-1, nor in fruits or vegetables to be served or sold raw to consumers
or to be presented to consumers as fresh.

EMERGENCY FIRST AID

If swallowed, induce vomiting immediately by giving two glasses of water, or
milk if available and sticking finger down throat. Never give anything by mouth
to an unconscious person. In case of contact, immediately flush eyes or skin
with plenty of water for at least 15 minutes. If inhaled, remove to fresh air.
Get medical attention for any breathing difficulty. In all cases call a
physician.

SEE SECTION 5.

Physical Data

SECTION 1

Appearance: Coarse white granules.

Odor: Slight odor of sulfur dioxide.

Solubility: Very soluble in water, insoluble in alcohol.

Boiling Point: Not applicable.

Vapor Density (Air=1): No information
found.Melting Point: Decomposes above 150 C
(302 F).Vapor Pressure (mm Hg): No information
found.

Specific Gravity: 1.48

Evaporation Rate: No information
found.Fire and Explosion

Information

SECTION 2

 Fire: Not considered to be a fire hazard.
 Explosion: Not considered to be an explosion hazard.
 Fire Extinguishing Media: Use any means suitable for extinguishing surrounding fire.
 Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Reactivity Data

SECTION 3

 Stability: Strength diminishes somewhat with age. Gradually decomposes in air to sulfate, generating sulfurous acid gas.
 Hazardous Decomposition Products: When heated to decomposition it emits toxic fumes of sodium oxide and sulfur oxides.
 Hazardous Polymerization: This substance does not polymerize.
 Incompatibilities: Acids, oxidizers, aluminum powder.

Leak/Spill Disposal Information

SECTION 4

 Spills: Ventilate area of leak or spill. Clean-up personnel may require protective clothing and respiratory protection from dust. Sweep up dry material into a suitable metal container with a cover for reclamation or disposal. Cautiously spray residue with plenty of water, providing ventilation to clear sulfur dioxide fumes generated from water contact. Disposal: Whatever cannot be saved for reclamation may be disposed in an approved waste disposal facility. Reportable Quantity (RQ) (CWA/CERCLA): 5000 lbs. sodium bisulfite.

Ensure compliance with local, state and federal regulations.

Health Hazard Information

SECTION 5

A. Exposure/Health Effects

 Inhalation: Inhalation of dust may cause irritation to the mucous membranes of the upper respiratory tract.
 Ingestion: May cause gastric irritation by the liberation of sulfurous acid. Large doses may result in diarrhea, circulatory disturbance, and central nervous system depression. Estimated fatal dose is 10 gm.
 Skin Contact: May cause irritation.
 Eye Contact: May cause irritation, redness, pain.
 Chronic Exposure: No information found.
 Aggravation of Pre-existing Conditions: Some individuals are said to be dangerously sensitive to minute amounts of sulfites in foods. Symptoms may include broncho constriction, shock, gastrointestinal disturbances, angio edema, flushing, and tingling sensations.

B. FIRST AID

Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion: If swallowed, induce vomiting immediately by giving two glasses of water, or milk if available and sticking finger down throat. Call a physician immediately. Never give anything by mouth to an unconscious person.

Skin Exposure: Remove any contaminated clothing. Wash skin with plenty of water for at least 15 minutes. If irritation develops, get medical attention.

Eye Exposure: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

C. TOXICITY (RTECS, 1986)

Sodium Metabisulfite [7681-57-4]: No LD50/LC50 information found relating to normal routes of occupational exposure. Reproductive effects references cited.

Sodium Bisulfite [7631-90-5]: Oral rat LD50: 2000 mg/kg. Mutation data references cited.

Occupational Control Measures SECTION 6

Airborne Exposure Limits: -OSHA Permissible Exposure Limit (PEL): 5 mg/m³ (TWA) for sodium bisulfite & for sodium metabisulfite -ACGIH Threshold Limit Value (TLV): 5mg/m³ (TWA) for sodium bisulfite & for sodium metabisulfite

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, A Manual of Recommended Practices", most recent edition, for details.

Personal Respirators (NIOSH Approved) If the TLV is exceeded, a dust/mist respirator with chemical goggles may be worn, in general, up to ten times the TLV. Consult respirator supplier for limitations. Alternatively, a supplied air full facepiece respirator or airlined hood may be worn.

Skin Protection: Gloves and lab coat, apron or coveralls.

Eye Protection: Use chemical safety goggles. Contact lenses should not be worn when working with this material. Maintain eye wash fountain and quick-drench facilities in work area.

Storage and Special Information SECTION 7

Keep in a tightly closed container. Protect from physical damage. Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities.

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Addendum to Material Safety Data Sheet

REGULATORY STATUS

Hazard Categories for SARA
 Section 311/312 Reporting

	Acute ----- X	Chronic -----	Fire -----	Pressure -----	Reactive -----	
Product or Components of Product:	SARA EHS Sec. 302 RQ TPQ		SARA Sec. 313 Chemicals Name List	Chemical Category	CERCLA Sec. 103 RQ lbs	RCRA Sec. 261.33
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SODIUM BISULFITE						
Sodium bisulfite						
(7631-90-5) trace%	No	No	No	No	No	No
Sodium metabisulfite						
(7681-57-4) 100%	No	No	No	No	No	No

SARA Section 302 EHS RQ:
 Reportable Quantity of Extremely Hazardous Substance, listed at 40 CFR 355.

SARA Section 302 EHS TPQ:
 Threshold Planning Quantity of Extremely Hazardous substance. An asterisk (*) following a Threshold Planning Quantity signifies that if the material is a solid and has a particle size equal to or larger than 100 micrometers, the Threshold Planning Quantity = 10,000 LBS.

SARA Section 313 Chemicals:
 Toxic Substances subject to annual release reporting requirements listed at 40 CFR 372.65.

CERCLA Sec. 103:
 Comprehensive Environmental Response, Compensation and Liability Act (Superfund) Releases to air, land or water of these hazardous substances which exceed the Reportable Quantity (RQ) must be reported to the National Response Center, (800-424-8802); Listed at 40 CFR 302.4

RCRA:
 Resource Conservation and Recovery Act. Commercial chemical product wastes designated as acute hazards and toxic under 40 CFR 261.33

SOBES

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