



Safety Data Sheet SODIUM METABISULFITE

Distributed by:



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Product #: S2045

Section 1 - Product and Company Identification

Product Name: Sodium Metabisulfite
Chemical Formula: $\text{Na}_2\text{S}_2\text{O}_5$
CAS Number: 007681-57-4
Other Designations: Sodium Pyrosulfite, Disodium Pyrosulfite, Pyrosulfurous Acid, Disodium Salt, Sodium Disulphite.
General Use: Food preservative, pharmaceutical manufacture, water dechlorination agent, lab reagent and other chemical process applications.
Manufacturer: Global Chemical Resources
1925 Nebraska Avenue
Toledo, OH 43607
T 419-242-1004

Emergency Contact: CHEMTREC 800-424-9300

Section 2 - Hazards Identification

Emergency Overview

Target Organs: Respiratory system, eyes, skin
GHS Classification: Acute Toxicity, Oral (Category 4)
Acute Toxicity, Dermal (Category 5)
Serious Eye Irritant (Category 2A)

GHS Label Elements: Signal Word – Warning

Pictogram



Corrosive



Irritant

Hazard Statements: H302 – Harmful if swallowed
H313 – May be harmful to skin
H319 – Causes serious eye irritation

Precautionary Statements: P281 – Wear protective equipment for hands, eyes, face and respiratory tract
P305, P351 and P338 – IF IN EYES: Rinse with water for several minutes.
Remove contact lenses if present and continue rinsing.

Other Hazards: Contact with acids or water liberates toxic sulfur dioxide gas.

HMIS Classification: Health Hazard 2
Flammability 0
Physical 0

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NFPA Rating: Health Hazard 2
Fire 0
Reactivity 0

Potential Health Effects: Inhalation: Irritant to respiratory tract
Eye: Irritant
Skin: Irritant
Ingestion: Harmful if swallowed
Aggravated Medical Condition: Capable of provoking bronchospasm in sulfite sensitive individuals with asthma.

Section 3 - Composition / Information on Ingredients

Composition	CAS Number	% wt or vol
Sodium Metabisulfite	007681-57-4	98 %(wt)
Sodium Sulfite	007757-83-7	1 %(wt)
Sodium Sulfate	007757-82-6	1 %(wt)

Section 4 - First Aid Measures

<u>Exposure Route</u>	<u>Symptom</u>	<u>Treatment</u>
Inhalation:	Sore throat, shortness of breath coughing, and congestion.	Remove from exposure to fresh air. Seek medical attention in severe cases or if recovery is not rapid.
Eye Contact:	Irritation to eyes and mucous membranes.	Irrigate with water until no evidence of chemical remains. Obtain medical attention.
Skin Contact:	Irritation, itching, dermatitis	Wash with soap and drench with water. Remove contaminated clothing and wash before reuse.
Ingestion:	Irritation to mucous membranes.	Give large quantities of water or milk immediately. Obtain medical attention.

Seek appropriate medical attention and provide this SDS to attending doctor

Note to physician: Exposure may aggravate acute or chronic asthma, emphysema and bronchitis.

Section 5 - Fire-Fighting Measures

Flammability: Not Flammable or combustible
Extinguishing Media: Dry Powder is recommended
Hazardous Products: May release hazardous gas with fire or water.
Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.

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Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill / Leak Procedures: Wear appropriate PPE - See Section 8.
Small Spills / Leaks: Spills can be neutralized with an alkaline material such as caustic soda. Leaks may be located by spraying the area with ammonium hydroxide solution which forms a white fume in the presence of sulfur dioxide.
Large Spills / Leaks: Large spills should be handled according to a predetermined plan.
Containment: For large spills, dike far ahead of contaminated runoff for later disposal

Section 7 - Handling and Storage

Handling Precautions: Avoid contact with product. Do not breathe dust or vapor.
Storage Requirements: Store in areas, away from heat and moisture and protect from *physical* damage. Segregate from acids and oxidizers.

Section 8 - Exposure Controls / Personal Protection:

Components	CAS Number	TWA	STEL	IDLH
Sodium Metabisulfite	007681-57-4	5 mg/m ³	*	*
Sodium Sulfite	007757-83-7	*	*	*
Sodium Sulfate	007757-82-6	*	*	*

* None established.

TWA – Time Weighted Average based on 8 hour exposure days and a 40 hour week.

STEL – Short Time Exposure Limit

IDLH - Immediately Dangerous to Life or Health

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA limits (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at the source.

Respiratory Protection: Follow OSHA respirator regulations (29 CFR 1910.134) and if necessary, wear a MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or on-routine operations (cleaning spills, reactor vessels, or storage tanks), wear a SCBA. **Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.**

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Protective Clothing / Equipment:	Wear protective gloves, boots, and clothing when necessary to prevent excessive skin contact. Wear protective eyeglasses or goggles, per OSHA eye and face protection regulations (29CFR 1910.133).
Safety Stations:	Make emergency eyewash stations, showers, and washing facilities available in the work area.
Contaminated Equipment Comments:	Remove this material from personal protective equipment as needed. Do not eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before food or beverage consumption

Section 9 - Physical and Chemical Properties

Physical State:	Solid crystal	Water Solubility:	45 % @ 20 °C
Appearance:	White	Other Solubility:	NA
Odor Threshold:	pungent SO ₂ odor	Boiling Point:	
Vapor Pressure:		Freezing Point:	
Vapor Density (Air=1):		Melting Point:	150 °C / 302 °F
Formula Weight:	190.11	Evaporation Rate:	Normal.
Density:	NA	pH:	4.0 – 4.5 (10 % Soln.)
Specific Gravity (H₂O=1):	1.5	% Volatile:	NA

Section 10 - Stability & Reactivity

Stability:	Stable under normal conditions.
Polymerization:	Hazardous polymerization will not occur.
Chemical Incompatibilities:	In the presence of water, or acid, Sodium Metabisulfite (and solutions) may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide. Acute poisoning from sulfur dioxide is rare because the gas is easily detected. It is so irritating that contact cannot be tolerated. Symptoms include coughing, hoarseness, sneezing, tearing, and breathing difficulty. However, workers who cannot escape high accidental exposure may suffer severe pulmonary damage which can be fatal. Contact with powdered potassium, sodium metals, alkali, and oxidizing agents produce violent reactions. Reacts with water and steam to form corrosive sulfurous acid. Reacts with chlorates to form unstable chlorine dioxide.
Conditions to Avoid:	Avoid excessive heat, open flame, and moisture.
Hazardous Decomposition:	May release hazardous sulfur dioxide gas.

Section 11 - Toxicological Information

Eye Effects (rabbit):	Not available.
Skin Effects (rabbit):	Non-corrosive.
Acute Inhalation Effects (rat):	Not available.
Acute Oral Effects (rat):	LD50 = 1131 mg/kg
Acute Dermal Effects (rat):	LD50 = > 2000 mg/kg
Carcinogenicity:	IARC, NTP, and OSHA do not list Sodium Metabisulfite as a carcinogen.

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Chronic Effects:	Prolonged or repeated exposure may cause dermatitis, and sensitization reactions. Exposure to asthmatic, atopic and sulfite sensitive individuals can result in expiratory volume. Decomposition of sodium metabisulfite and solutions may release toxic and hazardous fumes of sulfur oxides, including sulfur dioxide, which may cause permanent pulmonary impairments from acute and chronic exposure. The Immediately Dangerous to Life or Health (IDLH) level for SO ₂ is 100 ppm.
Skin:	Contact with skin may result in irritation. Sulfite sensitive individuals may show signs of allergic contact dermatitis from repeated or prolonged skin exposure.
Eyes:	Exposure to dust may cause severe eye irritation with possible permanent damage.
Inhalation:	Inhalation of dust may result in respiratory tract irritation. May cause asthma-like symptoms in sensitive individuals.
Ingestion:	Swallowing can result in nausea, vomiting, diarrhea and abdominal pain. May also cause allergic reactions in sulfite sensitive individuals

Section 12 - Ecological Information

Ecotoxicity: Sodium Metabisulfite is a non hazardous solid commonly used as a waste water dechlorination agent. High concentrations will contribute to elevated chemical oxygen demand in aquatic environments.

96 hour LC50 (fish):	150-220 mg/L
48 hour IC50 (algae):	48 mg/L
24 hour EC50 (water flea):	89 mg/L

Environmental Transport:	Soluble in water.
Environmental Degradation:	Rapid biological decomposition.
Soil Absorption/Mobility:	Slight.

Section 13 - Disposal Considerations

Disposal: Waste determinations typically consider Sodium Metabisulfite contaminated materials to be non-hazardous.

Disposal Regulatory Requirements: Follow applicable Federal, state and local regulations.

Container Cleaning and Disposal: Follow applicable Federal, state and local regulations.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101)

Shipping Name:	Sodium Metabisulfite, non-regulated material
Shipping Symbols:	NA

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Hazard Class: NA
Subsidiary Hazard: NA
ID No.: NA (No Placard Required)
Packing Group: NA
Label: GHS label
Special Provisions: NA

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Classification (40 CFR 261): Not listed.
CERCLA Hazardous Substance (40 CFR 302.4): Not listed
CERCLA Reportable Quantity (RQ): NA
SARA Title III: Section 302: Not listed.
Section 313: Not listed.
FIFRA: Not regulated.
TSCA: Inventory listed chemical; PAIR Reportable
Not listed in Toxic Substances Chemical Index

Other Regulations:

FDA (GRAS) Regulated when used as a food preservative
California Prop 65 Not Listed
IARC, NTP and OSHA Carcinogenicity: Not Listed
WHMIS Classification (Canada): D2B

Other Foreign Chemical Control Inventory Listing:

Canada DSL, Australia AICS, Chinese IECSC, European Union EINEC, Japanese MITI, Korean KECL and Philippines PICCS

Section 16 - Other Information

This product is NSF certified to NSF/ANSI Standard 60 and is subject to a maximum use limit (MUL) of 15 mg/L for potable water dechlorination applications.

Previous SDS issue date: NA
Current SDS issue date: July 1, 2015

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