



Section 1 - Chemical Product and Company Identification

Product/Chemical Name: Sodium Metabisulfite
Chemical Formula: Na₂S₂O₅
CAS Number: 007681-57-4
Other Designations: Sodium Pyrosulfite, Disodium Pyrosulfite, Pyrosulfurous Acid, Disodium Salt, Sodium Disulphite.
General Use: Food and pharmaceutical preservative, waste water dechlorinating agent, lab reagent.

Section 2 - Composition / Information on Ingredients

Composition	TWA	STEL	IDLH	CAS Number	% wt or vol
Sodium Metabisulfite	5 mg/m ³	*	*	007681-57-4	98 %
Sodium Sulfite	*	*	*	007757-83-7	1 %
Sodium Sulfate	*	*	*	007757-82-6	1 %

* none established.

Section 3 - Hazards Identification

***** Emergency Overview *****

Warning Statement: None
Hazard Rating: Health = 2, Fire = 0, Reactivity = 0, PPE - Sec. 8
Primary Entry Routes: Inhalation
Target Organs: Respiratory system, eyes, skin
Acute Effects: Acute effects to exposure of sodium metabisulfite includes eye and mucous membrane irritation. Decomposition of 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 exposure may suffer severe pulmonary damage which can be fatal.
Inhalation: Irritant
Eye: Irritant
Skin: Irritant
Ingestion: Not likely to occur
Carcinogenicity: IARC, NTP, and OSHA do not list sodium metabisulfite as a carcinogen.
Chronic Effects: Prolonged or repeated exposure may cause dermatitis, and sensitization reactions.
Medical Conditions Aggravated by Long-Term Exposure: Capable of provoking bronchospasm in sulfite-sensitive individuals who have asthma.



Section 4 - First Aid Measures

Exposure

<u>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.

<u>Route</u>	<u>Symptom</u>	<u>Treatment</u>
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.

After first aid, get appropriate medical attention.

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

Special Precautions/Procedures: None indicated.

Section 5 - Fire-Fighting Measures

Flash Point:	Not combustible.
Flash Point Method:	Not Applicable.
Burning Rate:	Not Applicable.
Autoignition Temperature:	Not Applicable.
LEL:	Not Applicable.
UEL:	Not Applicable.
Flammability Classification:	Not Flammable.
Extinguishing Media:	Use extinguishing agent appropriate for surrounding fire conditions.
Unusual Fire or Explosion Hazards:	None indicated.
Hazardous Combustion Products:	May release hazardous gas.
Fire-Fighting Instructions:	Do not release runoff from fire control methods to sewers or waterways.
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



Section 7 - Handling and Storage

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

Section 8 - Exposure Controls / Personal Protection

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.*

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 (29 CFR 1910.133).

Safety Stations: Make emergency eyewash stations, showers, and washing facilities Available in the work area.

Contaminated Equipment: Remove this material from personal protective equipment as needed.

Comments: 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 % @ 200 C
Appearance:	White	Other Solubilities:	NA
Odor Threshold:	pungent SO2 odor	Boiling Point:	
Vapor Pressure:		Freezing Point:	
Vapor Density (Air=1):		Melting Point:	150 0C
Formula Weight:	190.11	Evaporation Rate:	Normal.
Density:	NA	pH:	Acidic.
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, or open flame, and moisture.
Hazardous Decomposition Products:	May release hazardous sulfur dioxide gas.

Section 11 - Toxicological Information

Eye Effects (rabbit):	Not available.	Acute Inhalation Effects (rat):	Not available.
Skin Effects (rabbit):	Non-corrosive.	Acute Oral Effects (rat):	LD50 = 115 mg/kg
Carcinogenicity:	IARC, NTP, and OSHA do not list Sodium Metabisulfite as a carcinogen.		
Chronic Effects:	Prolonged or repeated exposure may cause dermatitis, and sensitization reactions. Exposure to asthmatic, atopic and sulfite sensitive individuals may result in severe bronchoconstriction and reduced levels in forced 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.		

Section 12 - Ecological Information

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

Hazard Class: NA

Subsidiary Hazard: NA

ID No.: NA

Packing Group: NA

Label: NA

Special Provisions: NA

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Classification (40 CFR 261): Not listed.

RCRA Hazardous Waste Number (40 CFR 261): Not listed.

CERCLA Hazardous Substance (40 CFR 302.4): Not listed.

CERCLA Reportable Quantity (RQ): NA

SARA Title III: Section 302 Extremely Hazardous Substance: Not listed.

Section 313 Toxic Chemical: Not listed.

FIFRA: Not regulated.

TSCA: Inventory listed chemical; PAIR Reportable;
Not listed in Toxic Substances Chemical Index

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000): Not listed.

OSHA Specifically Regulated Substance: Not listed.

Other Regulations:

FDA: Regulated when used as a food preservative.

Section 16 - Other Information

The information herein is believed to be reliable. However, no warranty, expressed or implied, is made as to its accuracy or completeness and none is made as to the fitness of this material for any purpose. The



manufacturer shall not be liable for damages to person or property resulting from its use. Nothing herein shall be construed as a recommendation for use in violation of any patent.