MATERIAL SAFETY DATA SHEET

SODIUM METABISULFITE

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	**Sodium Metabisulfite**
Chemical Formula	Na2S2O5
CAS Number	7681-57-4
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
Supplier	Cosmo Chemistry India Pvt. Ltd.
Address	2nd Floor, 210, Pujan Plaza, Nr. Vanmali BRTS Junction, Canal Road, Punagam, Surat, Gujarat, India - 395010
Email	info@cosmochemistryindia.com
Mobile No.	7984584838

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. Pictograms: 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+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:

Category	**Rating**

Health Hazard	2
Flammability	0
Physical	0

NFPA Rating:

Category	**Rating**
Health Hazard	2
Fire	0
Reactivity	0

Potential Health Effects:

Route	**Effect**
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	7681-57-4	98% (wt)

SECTION 4: FIRST AID MEASURES

Exposure Route	**Symptom**	**Treatment**
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 the 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.

Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full facepiece 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	7681-57-4	5 mg/m3	None established	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 (Section 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 an MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for the given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear an 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.

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

Parameter	Value
Physical State	Solid crystal
Appearance	White
Odour Threshold	Pungent SO2 odor
Vapour Pressure	Not available
Vapour Density (Air=1)	Not available
Formula Weight	190.11
Density	Not available
Specific Gravity (H2O=1)	1.5
Water Solubility	45% @ 20°C
Other Solubility	Not available
Boiling Point	Not available
Freezing Point	Not available
Melting Point	150°C / 302°F
Evaporation Rate	Normal
pH	4.0-4.5 (10% Soln.)
% Volatile	Not available

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

Test	Result
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

Chronic Effects:

Prolonged or repeated exposure may cause dermatitis and sensitization reactions. Exposure in asthmatic, atopic and sulfite sensitive individuals can result in reduced 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 SO2 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.

Test	Value
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)

Parameter	Value
Shipping Name	Sodium Metabisulfite, non-regulated material
Shipping Symbols	NA
Hazard Class	NA
Subsidiary Hazard	NA
ID No.	NA (No Placard Required)
Packing Group	NA
Label	GHS label
Special Provisions	NA

Information for Each of the UN Model Regulations

Transport of Dangerous Goods by Road, Rail and Inland Waterway (ADR/RID/ADN): Not subject to ADR, RID and ADN.

International Maritime Dangerous Goods Code (IMDG): Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR): Not subject to ICAO-IATA.

SECTION 15: REGULATORY INFORMATION

WHMIS Classification: D2, E

The product listed on this MSDS has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations. This MSDS contains all information required by those regulations.

SECTION 16: OTHER INFORMATION

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop

work practice procedures for a safe work environment. The information contained herein is, to the best of Cosmo Chemistry India's knowledge and belief, accurate. However, since the conditions of handling and use are beyond its control, Cosmo Chemistry India makes no guarantee of results and assumes no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

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