Sodium Metabisulfite

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKINGProduct identification:

Product Description:

Sodium metabisulfite

CAS-No: 7681-57-4

EC-No.: 231-673-0

Molecular Formula: $Na_2S_2O_5$

Relevant identified uses of the substance or mixture and uses advised against:

Details of the supplier of the safety data sheet:

- **Company** — **Sulfurshimi Kashan**
  No. 315, Kolahdooz St, Pasdaran Ave, Tehran, Iran
  Web: www.sulfurshimi.com
- **E-mail Address** — info@sulfurshimi.com

Emergency telephone number:

- For Emergency contact on: +98 - 2122 - 765743

SECTION 2: HAZARDS IDENTIFICATION

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 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances: Sodium Metabisulfite

Mixtures:

Component	TWA	CAS-No	EC-No.	Weight %
Sodium Metabisulfite	5 mg/m^3	7681-57-4	231-673-0	98

SECTION 4: FIRST AID MEASURES

Inhalation	sore throat, shortness of breath Remove from exposure to fresh air. Seek coughing, and congestion.
Eye Contac	Irritation to eyes and mucous membranes. Irrigate with water until no evidence of chemical remains. Obtain medical attention.
Skin contact	Irrigation, itching, dermatitis. Wash with soap and drench With water. Remove contaminated clothing and wash before reuse.
Ingestion	Irritation to mucous membranes. Give large amount of water or milk. Immediately obtain medical attention.

After first aid, get appropriate medical attention.

SECTION 5: FIREFIGHTING MEASURES

Flash point	Not combustible
Flash Point method	Not Applicable
Burning rate	Not Applicable
Auto ignition	Not Applicable
LEL	Not Applicable
UEL	Not Applicable
Flammability	Not flammable
Extinguishing media	Use extinguishing agent appropriate for surrounding fire conditions.
Hazardous combustion products	may release hazardous gas.
Fire-fighting instructions	do not release runoff from fire control methods to sewers or water ways.
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 according to 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

Precautions for safe handling

Avoid contact with product. Do not breathe dust or vapor.

Conditions for safe storage, including any incompatibilities:

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. 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 rquipment 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

Information on basic physical and chemical properties:

- **Appearance:** White
- **Physical State:** Solid crystal
- **Odor Threshold:** pungent SO_2 odor
- **pH:** Acidic
- **Melting Point:** 150°C
- **Molecular weight:** 190.11
- **Specific gravity (H_2O=1):** 1.5
- **Water solubility:** 45% @ 200 ^{0} **C**

SECTION 10: STABILITY AND 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
Skin effects (rabbit)	Non-Corrosive
Acute Inhalation effects (rat)	Not available
Acute Oral effect (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

Eco toxicity	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.

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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 ⅢⅠ: section 302 Extremely Hazardous Substance:	Not listed
FIFRA	Not regulated
OSHA Regulations:	
Air Contaminant (29 CFR 1910.1000)	Not listed
OSHA Specifically regulated substance	Not listed
Other Regulations:	
FDA	Regulated when used as 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.