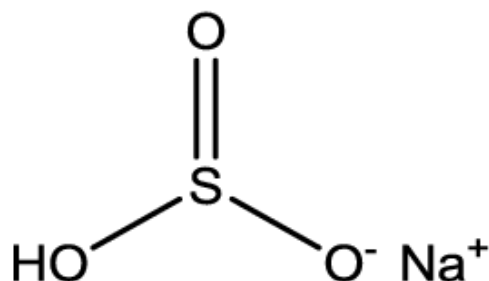




SPECIFICATION:

SODIUM BI SULPHITE



Parameters	Standard Specifications
Molecular weight	104.061 g/mol
Formula	NaHSO ₃
SO ₂ content	60.00% - 62.00%
pH	4 to 6
Purity	98.00% min.
20% aq. Solution	Clear
Moisture	0.50% max.
Insoluble Matter	0.10% max.
Imp. Iron	0.10% max.
Ash content	0.001% max.
Appearance	Pale white crystalline powder



MATERIAL SAFETY DATA SHEET

1) PRODUCT IDENTIFICATION:

Chemical Name: Sodium Bi Sulphite

Chemical Family: Inorganic Salt

Chemical Formula: A mixture of NaHSO₃

Manufacturer's Name and Address:

Arihant Chemicals,
Plot number C/412/1/1, Phase 2,
GIDC Estate, Vatva, Ahmedabad.

2) HAZARDOUS INGREDIENTS OF MATERIALS:

Ingredients % TLV Units CAS No.

Sodium Bi Sulphite } 90-100 5 mg/m³ 7631-90-5

Sodium Pyro Sulphite 5 mg/m³ 7681-57-4

3) PHYSICAL DATA:

Physical State: Solid

Oduor and Appearance: White powder with SO₂ odour

Oduor Threshold (ppm): Not available

Vapor Pressure (mm Hg): Not available

Vapor Density (Air =1): Not available

Evaporation Rate: Not available

Boiling Point (C): Decomposes

Melting Point (°C): >300C (sodium Pyro Sulphite)

pH: Not available

Specific Gravity: 1.48 (sodium Bi Sulphite)

Coefficient of Water/Oil distribution: Not available

4) REACTIVITY DATA:

Chemical Stability: Stable. Slowly oxidizes to sulphate upon exposure to air.

Incompatibility with other substances: Reacts violently or explosively with strong acids, oxidizing agents. alkalis, aluminium powder. Contact with moisture releases toxic Sulphur dioxide gas. Mixing with sodium nitrite results in a vigorous exothermic reaction.

Reactivity: Hygroscopic; protect from air. moisture and heat. Avoid incompatible materials. Generation of dust.

Hazardous Decomposition Products: SO_x



5) FIRE AND EXPLOSION DATA

Flammability: Will not burn, but sodium metabisulphite is a strong reducing agent which may ignite or even explode when in contact with oxidizing agents.

Extinguishing Media: Dry chemical powder, sand, CO₂, water spray or fog. Use water as spray or fog to cool containers, disperse dust and fumes. Fight fire from upwind, from a safe distance. Firefighters should wear protective equipment and clothing sufficient to prevent inhalation of fumes and contact with skin and eyes.

Flash Point (Method Used): None

Autoignition Temperature: Not available

Upper Flammable Limit (% by volume): Not applicable

Lower Flammable Limit (% by volume): Not applicable

Hazardous Combustion Products: SO_x (toxic, corrosive)

Sensitivity to Impact: None identified

Sensitivity to Static discharge: None identified



6) TOXICOLOGICAL PROPERTIES AND HEALTH DATA:

Toxicological Data:

LD50: (oral, rat) 2,000 mg/kg (sodium Bi Sulphite)

LC50: Not available

Effects of Acute Exposure to Product:

Individuals with pre-existing respiratory conditions such as asthma may be hypersensitive to Sulphites and Sulphur dioxide, demonstrating bronchoconstriction, bronchospasm, gastrointestinal disturbances, flushing, hypotension, tingling sensation, urticaria/angioedema and shock.

Inhaled: Irritating to respiratory tract. High concentrations can be extremely destructive to tissue, causing burning sensation, coughing, shortness of breath. Severe overexposure can cause circulatory disturbance, and central nervous system depression.

In contact with skin: May cause irritation, redness, pain.

Prolonged exposure can cause severe irritation and burns.

Extent of tissue damage depends on concentration and duration of exposure.

In contact with eyes: May cause irritation, redness, pain.

Vapors, mist and dust can cause severe corneal damage.

Extent of tissue damage depends on concentration and duration of exposure.

Ingested: May cause gastric irritation by the liberation of Sulphureous acid. Large doses may result in diarrhea. Circulatory disturbance, and central nervous system depression.



Effects of Chronic Exposure to Product:

Repeated or prolonged exposure can cause allergic reactions in sensitive individuals, with broncho constriction, shortness of breath. flushing of skin, tingling sensation. Once allergy develops, future minor exposures can cause allergic asthma attacks with wheezing. shortness of breath.

Teratogenicity: No human or animal information available

Reproductive Effects: No information available

Mutagenicity: Inadequate evidence of mutagenicity

Synergistic Products: None known



7) PREVENTIVE MEASURES:

Engineering Controls: Local exhaust ventilation required.

Respiratory Protection: Dust mask. NIOSH approved respirator equipped with dust, mist, and fume cartridges for concentrations up to 50 mg/m³. Higher or unknown concentrations, as in fire or spill conditions: air-supplied respirator or positive-pressure, full face-piece self-contained breathing apparatus.

Eye Protection: Chemical safety goggles.

Skin Protection: Acid resistant gloves. Other impervious protective clothing (apron, sleeves and boots) sufficient to prevent contact.



Other Personal Protective Equipment: Safety shower and eyebath located close to chemical exposure area.

Leak and Spill Procedure: Evacuate area. Ventilate area. Cleanup personnel must be thoroughly trained in the handling of hazardous chemicals and must wear protective equipment and clothing sufficient to prevent inhalation of dust and vapors and contact with skin and eyes. Prevent from entering sewers or waterways. Gather up in a manner that does not raise dust and collect in containers for recovery or disposal. Slurry with water, add sodium carbonate to neutralize (litmus paper indicator) and add calcium hypochlorite solution (equal volume). Allow to stand for 2 hours and flush to drain with plenty of water if regulations permit. Flush area of spill with large amounts of running water.



Waste Disposal: Follow all federal, provincial and local regulations for disposal.

Handling Procedures and Equipment: TOXIC; SENSITIZER.

Workers must be thoroughly trained in the hazards of this substance and its safe use, and must wear appropriate protective equipment and clothing. Use the smallest amount possible for the purpose. in a designated area with adequate ventilation. Keep work area free of extraneous material and incompatible materials. Keep away from heat and ignition sources. Avoid raising dust. Avoid inhalation of dust or mist. Avoid contact with skin and eyes. Keep containers closed when not in use and when empty. Wash thoroughly after handling. Storage Requirements: Store in suitable, labelled containers, in a cool, dry, well-ventilated area out of direct sunlight, away from ignition sources, combustible and incompatible materials. Keep containers tightly closed. Do not expose sealed containers to elevated temperatures. Solutions are corrosive to metals.

8) FIRST AID MEASURES:

Specific Measures:

Eyes: Flush eyes thoroughly with gently running water, holding eyelids open while flushing, for five to ten (5-10) minutes, or until no trace of chemical remains. Take care not to flush contaminated water into unaffected eye. If irritation persists, or if exposure was extensive, get medical attention.

Skin: Remove contaminated clothing. Brush or wipe off dry material. Wash skin with plenty of water until no evidence of chemical remains. If irritation develops, get medical attention. Decontaminate clothing before reuse, or discard.

Inhalation: Move victim to fresh air. Give oxygen and get medical attention for any breathing difficulty. Give artificial respiration ONLY if breathing has stopped. Obtain medical advice immediately.

Ingestion: If victim is alert and NOT convulsing, give 1 to 2 glasses of water to dilute material. DO NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward to avoid breathing of vomitus, rinse mouth and administer more water. Obtain medical attention.

Prepared by: Arihant Chemicals

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