



Sodium Metabisulfite – Material Safety Data Sheet (MSDS)

Reference Safety Data Sheet | 16 Sections

Section 1: Identification of the Substance and Supplier

Parameter	Information
Product Name	Sodium Metabisulfite
Synonyms	Sodium Pyrosulfite, SMBS, Sodium Disulfite
Chemical Formula	$\text{Na}_2\text{S}_2\text{O}_5$
CAS Number	7681-57-4
EC Number	231-673-0
Molecular Weight	190.11 g/mol
Supplier	Basekim
Product Grade	Industrial / Food Grade, subject to specification
Recommended Uses	Water treatment, food processing, textile manufacturing, chemical production
Emergency Contact	Insert verified supplier emergency telephone number

Section 2: Hazards Identification

GHS/CLP Classification

- Acute Toxicity, Oral – Category 4
- Serious Eye Damage – Category 1

Signal Word: Danger

Hazard Pictograms: GHS05 (Corrosion), GHS07 (Exclamation Mark)

Hazard Statements

- H302: Harmful if swallowed.
- H318: Causes serious eye damage.
- EUH031: Contact with acids liberates toxic gas.

Precautionary Statements



- P264: Wash exposed skin thoroughly after handling.
- P270: Do not eat, drink, or smoke when using this product.
- P280: Wear protective gloves and eye or face protection.
- P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER or doctor.
- P501: Dispose of contents and containers according to applicable regulations.

Additional Hazards: Dust may irritate the respiratory tract. Exposure to sulfites may trigger reactions in sensitive individuals. Contact with acids can release sulfur dioxide.

Section 3: Composition and Information on Ingredients

Component	CAS Number	Typical Concentration
Sodium Metabisulfite	7681-57-4	Approximately 97–99%, depending on grade
Other Constituents	Grade-dependent	Balance

The supplier must confirm actual composition and relevant impurities through product documentation.

Section 4: First Aid Measures

Inhalation: Move the affected person into fresh air. Keep the person comfortable for breathing. Seek medical attention if symptoms occur or persist.

Skin Contact: Remove contaminated clothing and wash the affected skin with plenty of water. Seek medical advice if irritation develops.

Eye Contact: Immediately rinse eyes with clean running water for at least 15 minutes. Remove contact lenses when possible. Seek immediate medical attention.

Ingestion: Rinse the mouth with water. Do not induce vomiting. Contact a poison center or medical professional promptly. Never give anything by mouth to an unconscious person.

Important Symptoms: Eye injury, gastrointestinal discomfort, coughing, respiratory irritation, and possible sulfite sensitivity reactions.



Section 5: Firefighting Measures

Flammability: The product does not normally present a significant fire hazard.

Suitable Extinguishing Media: Select extinguishing agents according to the surrounding fire.

Specific Hazards: Heating or decomposition may release sulfur oxides, including sulfur dioxide.

Protective Equipment: Firefighters should wear appropriate protective clothing and self-contained breathing apparatus.

Prevent contaminated firefighting runoff from entering drains or waterways.

Section 6: Accidental Release Measures

- Restrict access to the affected area.
- Provide adequate ventilation.
- Wear suitable protective equipment.
- Avoid generating airborne dust.
- Collect spilled powder using suitable dry cleanup methods.
- Transfer recovered material into labeled containers.
- Keep spilled material away from acids.
- Prevent uncontrolled discharge into drains and waterways.

Dispose of contaminated material according to applicable regulations.

Section 7: Handling and Storage

Handling Precautions

- Avoid inhaling dust.
- Prevent direct contact with eyes and skin.
- Use suitable ventilation.
- Keep containers closed when not in use.
- Avoid contact with acids and strong oxidizing agents.
- Wash hands thoroughly after handling.

Storage Conditions



Store in a cool, dry, well-ventilated location.

Protect bags against moisture, heat, and incompatible chemicals. Keep containers tightly sealed and follow the manufacturer's storage instructions.

Section 8: Exposure Controls and Personal Protection

Engineering Controls: Use local exhaust ventilation where operations generate dust.

Respiratory Protection: Use appropriately selected respiratory protection when exposure assessment indicates a need.

Eye Protection: Wear chemical splash goggles. Use additional face protection where necessary.

Hand Protection: Wear chemically resistant protective gloves.

Skin Protection: Wear suitable protective clothing and footwear.

Hygiene Measures: Avoid eating, drinking, or smoking in handling areas. Wash after chemical contact.

Occupational Exposure Limits: Consult the applicable national regulations and product-specific SDS. No universal exposure limit applies to every workplace jurisdiction.

Section 9: Physical and Chemical Properties

Property	Typical Information
Physical State	Solid crystalline powder
Color	White to pale yellow
Odor	Characteristic sulfur dioxide odor
Molecular Formula	$\text{Na}_2\text{S}_2\text{O}_5$
Molecular Weight	190.11 g/mol
Water Solubility	Readily soluble
pH	Acidic in aqueous solution
Flammability	Not normally classified as flammable
Flash Point	Not applicable
Thermal Behavior	Decomposes on heating



Density	Approximately 1.48 g/cm ³
Vapor Pressure	Not applicable to the solid under normal conditions
Explosive Properties	Not classified as explosive

Physical values may vary according to grade, test conditions, and manufacturer.

Section 10: Stability and Reactivity

Chemical Stability: Stable under recommended dry storage conditions.

Reactivity: Acts as a reducing agent and reacts with oxidizing substances.

Conditions to Avoid: Excessive heat, moisture, and incompatible chemical contact.

Incompatible Materials: Acids and strong oxidizing agents.

Hazardous Decomposition Products: Sulfur dioxide and other sulfur oxides may form during decomposition.

Hazardous Reactions: Acid contact can release toxic sulfur dioxide gas.

Section 11: Toxicological Information

Acute Oral Toxicity: Harmful if swallowed.

Eye Effects: Causes serious eye damage.

Skin Effects: Contact may cause irritation.

Inhalation Effects: Dust can irritate the respiratory system. Sulfur dioxide exposure may cause serious respiratory effects.

Sensitization: Sulfite-sensitive individuals may experience adverse reactions, particularly respiratory symptoms.

Chronic Exposure: Repeated or prolonged exposure may contribute to respiratory irritation, depending on exposure conditions.

Carcinogenicity: Available product classification information does not establish a carcinogenic classification for the substance.



Section 12: Ecological Information

Ecotoxicity: Significant releases can affect aquatic environments by altering water chemistry and consuming dissolved oxygen.

Persistence and Degradability: The compound transforms into inorganic sulfur species in aqueous environments.

Bioaccumulation: Significant bioaccumulation is not generally expected.

Mobility: Water-soluble components can move through aqueous environments.

Environmental Precautions: Prevent uncontrolled discharge into waterways, soil, and drainage systems.

Section 13: Disposal Considerations

Dispose of chemical waste according to local, national, and regional regulations.

Do not release large quantities into drains or natural waterways.

Collect contaminated material in suitable labeled containers.

Dispose of empty packaging according to its contamination status and applicable waste-management requirements.

Use authorized waste-management services when required.

Section 14: Transport Information

Parameter	General Information
UN Number	Generally not assigned
UN Proper Shipping Name	Generally not regulated as dangerous goods
ADR/RID	Generally not regulated
IMDG	Generally not regulated
IATA	Generally not regulated
Marine Pollutant	Generally not classified
Packaging	Protect against moisture and damage



Confirm transport classification against the actual supplier SDS and the regulations applicable to the shipment.

Section 15: Regulatory Information

Sodium metabisulfite appears in major chemical regulatory inventories.

Its use must comply with applicable chemical safety, occupational exposure, environmental protection, and product-specific requirements.

Relevant Regulatory Considerations

- GHS chemical hazard classification and labeling
- EU REACH and CLP requirements where applicable
- National occupational safety regulations
- Food additive regulations for approved food-grade applications
- Environmental discharge and chemical waste requirements

Food-grade designation does not authorize unrestricted use in food products.

Section 16: Other Information

Product: Sodium Metabisulfite (SMBS)

CAS Number: 7681-57-4

Chemical Formula: $\text{Na}_2\text{S}_2\text{O}_5$

Reference Preparation Date: October 20, 2026

Hazard Statement Summary

- H302: Harmful if swallowed.
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- EUH031: Contact with acids liberates toxic gas.