



Technical Data Sheet (TDS) – Sodium Metabisulfite

Product Name: Sodium Metabisulfite (SMBS)

Chemical Name: Sodium Pyrosulfite / Disodium Disulfite

CAS Number: 7681-57-4

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

Molecular Weight: 190.11 g/mol

Supplier: Basekim

Grade: Industrial / Food Grade

Product Description

Sodium Metabisulfite is a white to slightly yellow crystalline powder widely used as a reducing agent, antioxidant, preservative, and dechlorinating chemical. It offers high water solubility and supports industrial processes such as water treatment, food processing, textile manufacturing, mining, and chemical production.

Technical Specifications

Parameter	Industrial Grade	Food Grade
Purity ($\text{Na}_2\text{S}_2\text{O}_5$)	$\geq 97.0\%$	$\geq 97.0\%$
Appearance	White to pale yellow powder	White to pale yellow powder
SO_2 Content	$\geq 65.0\%$	$\geq 65.0\%$
Iron (Fe)	$\leq 0.005\%$	$\leq 0.002\%$
Water Insoluble Matter	$\leq 0.05\%$	$\leq 0.05\%$
pH (5% Solution)	4.0–5.5	4.0–5.5
Lead (Pb)	As per industrial specification	Must meet applicable food-grade limits
Arsenic (As)	As per industrial specification	Must meet applicable food-grade limits

Values represent typical commercial specifications and require confirmation through a manufacturer-issued TDS and batch-specific Certificate of Analysis.



Physical and Chemical Properties

Property	Typical Value
Physical State	Crystalline powder
Color	White to pale yellow
Odor	Characteristic sulfur dioxide odor
Density	Approximately 1.48 g/cm ³
Water Solubility	Approximately 540 g/L at 20°C
pH	Acidic in aqueous solution
Thermal Behavior	Decomposes on heating
Flash Point	Not applicable
Flammability	Nonflammable under normal conditions

Main Applications

- **Water Treatment:** Chlorine removal, reverse osmosis membrane protection, and wastewater treatment.
- **Food Industry:** Preservative and antioxidant in permitted food and beverage applications.
- **Textile Industry:** Bleaching-agent neutralization and selected reduction processes.
- **Mining Industry:** Mineral flotation and sulfide separation.
- **Chemical Industry:** Reducing agent, oxidation control, and chemical synthesis.

Packaging

- 25 kg moisture-resistant bags
- Polyethylene-lined bags
- Palletized shipments
- Full-container export quantities

Packaging options depend on order requirements and supplier availability.

Storage and Handling

Store in a cool, dry, well-ventilated area. Keep containers tightly sealed and protect the product against moisture, heat, acids, and strong oxidizing agents.

Use suitable protective gloves, eye protection, and ventilation during handling. Contact with acids can release toxic sulfur dioxide gas.



Shelf Life

The manufacturer determines the product's shelf life according to packaging and storage conditions. Confirm the applicable shelf life before purchase.

Quality and Documentation

Basekim can discuss documentation requirements for commercial orders, including:

- Technical Data Sheet (TDS)
- Safety Data Sheet (SDS/MSDS)
- Certificate of Analysis (COA)
- Grade-specific quality specifications

Disclaimer

This document provides reference technical information. The listed values do not represent guaranteed Basekim specifications. Buyers must verify the actual product grade, assay, impurity limits, and regulatory compliance against the manufacturer's approved documentation before purchase or use.