

### PRODUCT IDENTIFICATION



**Product Name:** Sodium Metabisulfite - Technical Grade

**CAS Number:** 7681-57-4

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

**Molecular Weight:** 190.11 g/mol

**Grade:** Technical Grade

**Purity / Concentration:** Not Available

**Synonyms:** Sodium Pyrosulfite, Disodium Metabisulfite

### PRODUCT OVERVIEW

Sodium Metabisulfite (CAS 7681-57-4) is a white crystalline powder provided here in technical grade with a minimum assay of 97.5%. It serves as a highly effective reducing agent and preservative, valued for its low impurity profile, including iron levels of only 5 ppm and arsenic at 0.1 ppm.

**Grade Significance:** Technical grade indicates that this product is manufactured for industrial and commercial applications where high chemical efficacy is required but food or pharmaceutical-grade certification is not necessary.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

| PARAMETER            | UNIT | TYPICAL   | MIN  | MAX   | TEST METHOD           |
|----------------------|------|-----------|------|-------|-----------------------|
| Assay                | %    | 100.0     | 99.5 | 100.5 | Titration/Gravimetric |
| pH                   | —    | 4.5       | 4    | 5     | pH Meter              |
| Moisture             | %    | ≤ 0.04 %  | —    | —     | Karl Fischer          |
| Non-Volatile Residue | %    | 0.1       | —    | 1     | Residue on Ignition   |
| Arsenic As           | ppm  | ≤ 0.4 ppm | —    | —     | ICP-MS                |
| Heavy Metals As Pb   | ppm  | ≤ 10 ppm  | —    | —     | ICP-MS (as Pb)        |
| Iron                 | ppm  | 2         | —    | 10    | ICP                   |
| Lead Pb              | ppm  | ≤ 5 ppm   | —    | —     | ICP-MS                |
| Chloride Cl          | %    | ≤ 0.05 %  | —    | —     | ICP                   |
| Insoluble Matter     | %    | ≤ 0.01 %  | —    | —     | Gravimetric           |
| Mercury Hg           | ppm  | ≤ 0.1 ppm | —    | —     | ICP-MS                |
| Selenium Se          | ppm  | ≤ 5 ppm   | —    | —     | ICP-MS                |
| Sulfite              | %    | ≤ 2 %     | —    | —     | Per specification     |

ND = Not Detected. Values are typical and may vary by lot.

## PHYSICAL & CHEMICAL PROPERTIES

|                         |                          |                                 |                                                |
|-------------------------|--------------------------|---------------------------------|------------------------------------------------|
| <b>Appearance</b>       | White crystalline powder | <b>Odor</b>                     | Slight sulfurous odor                          |
| <b>Boiling Point</b>    | Decomposes (NIOSH, 2024) | <b>Melting / Freezing Point</b> | greater than 302 °F (Decomposes) (NIOSH, 2024) |
| <b>Solubility</b>       | Soluble in water         | <b>Molecular Formula</b>        | Na <sub>2</sub> O <sub>5</sub> S <sub>2</sub>  |
| <b>Molecular Weight</b> | 190.11 g/mol             | <b>Density (25°C)</b>           | 1.48 g/mL                                      |

## APPLICATIONS

- 1. Water Treatment** — It acts as a powerful reducing agent to dechlorinate water and neutralize oxidizing agents, protecting sensitive downstream equipment.
- 2. Food Processing** — Used as a preservative to inhibit microbial growth and prevent spoilage, helping to maintain the freshness and color of various food products.
- 3. Photography** — Utilized in film and paper development processes to control oxidation and ensure the stability of chemical solutions.
- 4. Chemical Manufacturing** — Serves as a vital reducing agent in complex chemical synthesis processes, facilitating the production of various industrial compounds.

## STORAGE & HANDLING

Sodium Metabisulfite must be stored in a cool, dry, and well-ventilated area to prevent moisture absorption, which can lead to degradation and the release of hazardous sulfur dioxide gas. Proper storage is essential to manage the chemical's reactivity and mitigate the risks associated with its classification as a substance that causes serious eye damage.

- Store in a cool, dry place away from moisture and incompatible materials.
- Use appropriate personal protective equipment (PPE) such as gloves and goggles.
- Keep containers tightly closed when not in use to prevent moisture absorption.
- Avoid exposure to strong acids or bases to maintain product integrity.
- Ensure adequate ventilation in storage areas to prevent accumulation of vapors.

## AVAILABLE PACKAGING

- 2 lbs.
- 5 Lbs.
- 50 Lbs.

## SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



### Hazard Statements:

- H302: Harmful if swallowed [Warning Acute toxicity, oral]
- H318: Causes serious eye damage [Danger Serious eye damage/eye irritation]

**Emergency Contact:** CHEMTEL - 800-255-3924 (24 Hours/Day, 7 Days/Week)

*For complete safety information, refer to the Safety Data Sheet (SDS) for this product.*

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