

PRODUCT IDENTIFICATION

**Product Name:** Sodium Metabisulfite - Food Grade**CAS Number:** 7681-57-4**Molecular Formula:** $\text{Na}_2\text{O}_5\text{S}_2$ **Molecular Weight:** 190.11 g/mol**Grade:** Food Grade**Purity / Concentration:** Not Available**Synonyms:** Sodium Pyrosulfite, Disodium Metabisulfite

PRODUCT OVERVIEW

Sodium Metabisulfite Food Grade is a high-purity crystalline powder, featuring an assay of 100.0% and strictly controlled impurity levels, including arsenic at 0.3 ppm and heavy metals at 3 ppm. This versatile chemical serves as a critical antioxidant and preservative, ensuring product stability and preventing spoilage across various food and industrial sectors.

Grade Significance: The Food Grade designation ensures that the product meets stringent purity standards and safety thresholds for contaminants, making it safe for direct use in food and beverage production.

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	%	0.01	0	0.04	Karl Fischer
Arsenic As	ppm	0.3	0	1	ICP-MS
Heavy Metals As Pb	ppm	3	0	10	ICP-MS (as Pb)
Iron	ppm	2	0	10	ICP
Lead Pb	ppm	0.6	0	2	ICP-MS
Chloride Cl	%	0.015	0	0.05	ICP
Insoluble Matter	%	0.0030	0	0.01	Gravimetric
Mercury Hg	ppm	0.05	0	0.1	ICP-MS
Selenium Se	ppm	1.5	0	5	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White to yellowish crystalline powder	Odor	Slight sulfurous odor
Boiling Point	Decomposes (NIOSH, 2024)	Melting / Freezing Point	greater than 302 °F (Decomposes) (NIOSH, 2024)
Solubility	Soluble in water	Molecular Formula	$\text{Na}_2\text{O}_5\text{S}_2$
Molecular Weight	190.11 g/mol	Density (25°C)	1.48 g/mL

APPLICATIONS

1. **Food and Beverage** — Used as a preservative and antioxidant to prevent enzymatic browning and spoilage in processed fruits and vegetables.
2. **Winemaking** — Acts as a stabilizer to inhibit microbial growth and prevent oxidation, maintaining the intended flavor profile and quality of the wine.
3. **Water Treatment** — Utilized as an effective dechlorinating agent to remove residual chlorine and other contaminants from municipal or industrial water supplies.
4. **Photography** — Serves as a reliable reducing agent in photographic development processes to ensure consistent image quality.

STORAGE & HANDLING

Sodium Metabisulfite must be stored in a cool, dry, and well-ventilated area to prevent degradation and the potential release of sulfur dioxide gas. Proper containment is essential to mitigate health risks, as the material is classified as harmful if swallowed and capable of causing serious eye damage.

- Store in a cool, dry place away from moisture and incompatible substances.
- Use appropriate PPE, including gloves and goggles, when handling.
- Keep containers tightly closed when not in use to prevent moisture absorption.
- Avoid exposure to strong acids or bases.

AVAILABLE PACKAGING

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

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H302: Harmful if swallowed
- H318: Causes serious eye damage

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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