

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 widely utilized for its potent antioxidant and preservative properties. With a minimum assay of 98.3% and strictly controlled heavy metal levels, this compound ensures consistent performance in sensitive food and water treatment applications.

Grade Significance: Food Grade status guarantees that the product meets stringent purity standards, ensuring that trace contaminants like arsenic and heavy metals are kept at safe, negligible levels for human consumption.

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 Processing** — Used to effectively prevent enzymatic browning and spoilage in processed fruits and vegetables, maintaining product appearance and shelf life.
2. **Winemaking** — Acts as a vital antioxidant and antimicrobial agent to preserve wine quality, flavor stability, and prevent oxidation during production.
3. **Water Treatment** — Utilized as a chemical dechlorinating agent to remove residual chlorine and contaminants from water supplies before further processing.
4. **Photography** — Functions as a critical reducing agent in traditional photographic development processes to ensure image clarity and chemical stability.

STORAGE & HANDLING

Sodium Metabisulfite must be stored in a cool, dry, and well-ventilated area to prevent moisture absorption, which can lead to clumping and degradation. Proper containment is essential to mitigate the risk of accidental ingestion or eye contact, as the material is classified as a hazardous substance.

- 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 [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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