

PRODUCT IDENTIFICATION



Product Name: Sodium Chlorite Flakes 80% - ACS Grade

CAS Number: 7758-19-2

Molecular Formula: ClNaO_2

Molecular Weight: 90.44 g/mol

Grade: ACS Grade

Purity / Concentration: 80%

Synonyms: Sodium Chlorite Powder, Sodium Chlorite Crystals

PRODUCT OVERVIEW

Sodium Chlorite Flakes 80% is a high-purity ACS Grade oxidizing agent characterized by its low level of impurities, such as insoluble matter at 0.0020% and iron at 1 ppm. This crystalline solid is primarily utilized as a critical precursor in the synthesis of chlorine dioxide for effective water treatment and industrial bleaching.

Grade Significance: ACS Grade signifies that this product meets the rigorous standards set by the American Chemical Society, ensuring high purity and consistent, predictable performance for sensitive analytical and industrial applications.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay	%	80	79	81	Titration/Gravimetric
Specific Gravity (20°C)	g/mL	1.6	1.595	1.605	Hydrometer @ 25°C
Moisture	%	1	0	2	Karl Fischer
Arsenic As	ppm	0.0010	0	0.0030	ICP-MS
Calcium Ca	%	0.05	0	0.1	ICP-MS
Iron	ppm	5	0	10	ICP
Magnesium Mg	%	0.02	0	0.05	ICP-MS
Chloride Cl	%	0.1	0	0.2	ICP
Sulfate (SO_4^{2-})	%	0.05	0	0.1	ICP-MS
Insoluble Matter	%	0.05	0	0.1	Gravimetric

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	White to slightly yellow crystals/flakes; odorless	Odor	Slight chlorine-like odor
Form	Flakes / crystalline solid	Melting / Freezing Point	~190 °C (decomposes)
Flash Point	Not applicable	Solubility	Highly soluble; ~545 g/L at 20 °C
Molecular Formula	ClNaO_2	Molecular Weight	90.44 g/mol
Density (25°C)	2.60 g/mL		

APPLICATIONS

1. **Water Treatment** — Acts as a primary oxidizing agent to effectively manage odor and taste profiles in municipal and industrial water systems.
2. **Disinfection** — Serves as a reliable precursor for generating chlorine dioxide, a powerful disinfectant used to eliminate pathogens in various environments.
3. **Textile and Paper** — Utilized in bleaching processes where its strong oxidizing properties help achieve desired brightness and purity levels in raw materials.
4. **Pharmaceutical** — Employed in controlled oxidation reactions during the synthesis of specialized chemical compounds and active ingredients.
5. **Analytical Chemistry** — Functions as a high-purity reagent in laboratory settings for various analytical procedures requiring strict chemical specifications.

STORAGE & HANDLING

Proper storage is critical because Sodium Chlorite is a strong oxidizer that can intensify fires and pose severe skin and eye hazards if mishandled. It must be kept in a cool, dry, and well-ventilated area away from incompatible materials to prevent hazardous reactions and ensure the integrity of the chemical.

- Store in a cool, dry place away from direct sunlight.
- Use containers made of HDPE or glass to prevent reactions.
- Avoid contact with strong acids and reducing agents.
- Ensure proper ventilation when handling to avoid inhalation of dust.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles.

AVAILABLE PACKAGING

- 100 Lbs.

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- H271: May cause fire or explosion; strong oxidiser
- H272: May intensify fire; oxidiser
- H301: Toxic if swallowed
- H310: Fatal in contact with skin
- H314: Causes severe skin burns and eye damage
- H318: Causes serious eye damage
- H373: May cause damage to organs through prolonged or repeated exposure
- H400: Very toxic to aquatic life
- H410: Very toxic to aquatic life with long lasting effects
- H412: Harmful to aquatic life with long lasting effects

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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