

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% (ACS Grade) is a high-purity oxidizing agent characterized by its 80% assay and strict impurity controls, such as arsenic levels at 0.0010 ppm. This crystalline solid is primarily utilized as a precursor for chlorine dioxide production in demanding industrial and analytical applications.

Grade Significance: ACS Grade ensures that the product meets the rigorous purity standards set by the American Chemical Society, providing users with the analytical consistency necessary for sensitive research and manufacturing processes.

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 @ 20°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** — Used as a powerful oxidizing agent to effectively control odor and taste profiles in municipal and industrial water systems.
2. **Chemical Manufacturing** — Serves as a critical precursor in the synthesis of chlorine dioxide, which is widely used for industrial bleaching and disinfection.
3. **Pharmaceuticals** — Employed as a precise reagent in various pharmaceutical oxidation reactions where high purity and consistency are required.
4. **Analytical Laboratory** — Utilized in specialized analytical procedures that rely on the compound's predictable and stable oxidizing properties.

STORAGE & HANDLING

As a strong oxidizer, this product must be stored in a cool, dry, and well-ventilated area away from combustible materials and organic substances to prevent fire or explosion. Proper segregation is essential because contact with contaminants can trigger hazardous exothermic reactions.

- 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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