

PRODUCT IDENTIFICATION



Product Name: Sodium Chlorite Flakes 80% - ACS Grade

Product Code: None

CAS Number: 7758-19-2

Molecular Formula: NaClO₂

Molecular Weight: 90.44 g/mo g/mol

Grade: ACS Grade

Purity / Concentration: Not Available

Synonyms: Sodium Chlorite Powder, Sodium Chlorite Crystals

PRODUCT OVERVIEW

Sodium Chlorite Flakes 80%, ACS Grade, from Alliance Chemical, is a high-purity oxidizing agent supplied as white to slightly yellow flakes. With an assay of 81.2%, this product is ideal for water treatment, disinfection, and various analytical procedures. Its ACS grade designation ensures it meets stringent quality standards for laboratory and industrial applications.

Grade Significance: ACS Grade Sodium Chlorite Flakes meet the stringent purity requirements set by the American Chemical Society (ACS). This ensures the chemical's suitability for laboratory use, analytical testing, and applications where high purity and minimal interference from impurities are essential for accurate and reliable results.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	81.2	80	—	Titration
Residue After Ignition	%	0.1	—	0.2	Gravimetric
Heavy Metals (as Pb)	ppm	0.5	—	10	ICP-MS
Iron (Fe)	ppm	1	—	5	ICP-MS
Chloride (Cl ⁻)	ppm	5	—	25	Ion Chromatography
Sulfate (SO ₄ ²⁻)	ppm	10	—	50	Ion Chromatography
Free Alkali As Naoh	%	0.01	—	0.02	Titration
Insoluble Matter	%	0.0020	—	0.0050	Gravimetric
Nitrogen Compounds As N	ppm	ND	—	10	Ion Selective Electrode

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	NaClO ₂	Molecular Weight	90.44 g/mo g/mol
Density (25°C)	2.60 g/mL		

APPLICATIONS

- 1. Water Treatment** — Sodium Chlorite is used as an oxidizing agent to control odor and taste in municipal and industrial water treatment processes. It effectively eliminates unwanted compounds, ensuring water palatability and safety.
- 2. Chemical Synthesis** — It serves as a crucial precursor in the synthesis of chlorine dioxide (ClO₂), a powerful bleaching and disinfecting agent. The high purity of the ACS grade ensures efficient and controlled ClO₂ production.
- 3. Analytical Chemistry** — Sodium Chlorite is utilized in various analytical procedures due to its consistent oxidizing properties. Its controlled reactivity allows for precise and reliable quantitative analysis.
- 4. Pharmaceutical Industry** — Employed in the pharmaceutical industry for specific oxidation reactions during the synthesis of active pharmaceutical ingredients (APIs). The low levels of heavy metals (0.5 ppm as Pb) and iron (1 ppm) are critical for pharmaceutical applications.
- 5. Textile Industry** — Sodium chlorite can be used as a bleaching agent for textiles, offering a controlled and effective method for whitening fabrics. The consistent purity ensures uniform bleaching results.
- 6. Pulp and Paper Industry** — It is used in the pulp and paper industry for bleaching pulp. The high assay ensures effective bleaching with minimal residue after ignition (0.1%).

STORAGE & HANDLING

Proper storage of Sodium Chlorite Flakes is crucial to maintain its stability and prevent hazardous situations. As a strong oxidizer (H272), it should be stored away from combustible materials and reducing agents to avoid fire hazards. Keep containers tightly closed in a dry, well-ventilated place to prevent decomposition and the release of chlorine dioxide gas.

- 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:

- H272: May intensify fire; oxidizer
- H302: Harmful if swallowed
- H314: Causes severe skin burns and 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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