

PRODUCT IDENTIFICATION



Product Name: Sodium Hypochlorite 12.5%
CAS Number: 7681-52-9
Molecular Formula: ClNaO
Molecular Weight: 74.44 g/mol
Grade: Technical Grade
Purity / Concentration: 12.5%
Synonyms: Liquid Bleach, Sodium Oxychloride

PRODUCT OVERVIEW

Alliance Chemical provides high-quality Technical Grade Sodium Hypochlorite 12.5%, a powerful oxidizing agent widely used for disinfection and bleaching. With a verified assay of 12.5% and low trace metal content, this solution ensures reliable performance for demanding industrial and municipal applications.

Grade Significance: Technical Grade indicates that this product is manufactured to meet industrial performance standards, ensuring it is suitable for large-scale operations where chemical consistency is vital.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	12.5	12	13	Titration
Specific Gravity (20°C)	g/mL	1.21	—	—	Hydrometer @ 20°C
Copper Cu	ppm	0.12	0	0.5	ICP-MS
Iron	ppm	0.6	0	2	ICP
Nickel Ni	%	0.05	0	0.5	ICP-MS
Sodium Na	ppm	0.4	0.2	0.6	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Pale yellow liquid	Odor	Chlorine-like odor
Form	Liquid solution	Boiling Point	Not characterized for the 12.5% solution
Melting / Freezing Point	Not characterized for the 12.5% solution	Flash Point	null
Specific Gravity	1.19	Solubility	Highly water soluble, reacts with aqueous solutions
Molecular Formula	ClNaO	Molecular Weight	74.44 g/mol
Vapor Pressure (20°C)	0.5 mmHg	Viscosity (25°C)	1.0 cP
Refractive Index (20°C)	1.335	Density (25°C)	1.2 g/mL

APPLICATIONS

1. **Water Treatment** — Used extensively for the treatment of drinking water and wastewater to effectively control algae growth and neutralize odors.
2. **Textile Manufacturing** — Acts as a potent bleaching agent for fabrics and fibers, ensuring high-quality color removal and preparation for dyeing.
3. **Chemical Synthesis** — Utilized as a versatile oxidizing agent in various chemical reactions to facilitate the production of specialty compounds.
4. **Industrial Processing** — Employed to precisely adjust pH levels and manage chemical balances in diverse industrial manufacturing systems.

STORAGE & HANDLING

Sodium Hypochlorite is sensitive to light and heat, which can lead to rapid degradation of its concentration. Proper storage is also critical to prevent contact with acids, which can liberate toxic chlorine gas, and to mitigate its corrosive effects on metal containers.

- Store in a cool, dry place away from direct sunlight.
- Use containers made of HDPE or glass to prevent reactions.
- Avoid contact with acids and organic materials.
- Ensure proper ventilation in storage areas to minimize vapor accumulation.
- Wear appropriate personal protective equipment (PPE) including gloves and goggles.

AVAILABLE PACKAGING

- 1 Quart
- 1 Gallon
- 5 Gallon
- 15 Gallon
- 55 Gallon
- 275 Gallon
- 330 Gallon

SAFETY SUMMARY (CROSS-REFERENCE TO SDS)

Signal Word: **Danger**



Hazard Statements:

- EUH031: Contact with acids liberates toxic gas
- H290: May be corrosive to metals
- H314: Causes severe skin burns and eye damage
- H400: Very toxic to aquatic life
- H410: Very toxic 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.

Alliance Chemical | 204 South Edmond St, Taylor, Texas 76574 | 512-365-6838 | www.alliancechemical.com

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