

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 at a 12.5% concentration, a powerful oxidizing agent widely used for disinfection and bleaching. This solution features a specific gravity of 1.21 g/mL and controlled levels of trace metals like copper and iron, ensuring consistent performance in industrial applications.

Grade Significance: Technical Grade indicates that this product is formulated for industrial and commercial utility, providing the necessary chemical efficacy for large-scale applications without the premium cost of analytical or food-grade standards.

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
Excess Sodium Hydroxide	wt%	0.4	0.2	0.6	Titration
Iron	ppm	0.6	0	2	ICP
Nickel Ni	ppm	0.05	0	0.5	ICP-MS
Available Chlorine	wt%	12.15	11.9	12.4	Iodometric Titration

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	11°C (52°F)
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 eliminate odors.
2. **Textiles** — Applied in the textile industry to bleach fabrics and fibers, ensuring high-quality color preparation and brightness.
3. **Chemical Manufacturing** — Utilized as a versatile oxidizing agent in various complex chemical reactions and synthesis processes.
4. **Industrial Processing** — Employed as a reliable agent to adjust pH levels in diverse industrial systems, maintaining process stability.

STORAGE & HANDLING

Proper storage is critical because Sodium Hypochlorite is corrosive to metals and can liberate toxic gases if it comes into contact with acids. Maintaining a controlled environment prevents chemical degradation and ensures the safety of your facility by mitigating the risk of skin burns and eye damage.

- 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

Disclaimer: The information contained herein is believed to be accurate and represents the best information currently available to us. However, Alliance Chemical makes no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.