

PRODUCT IDENTIFICATION



Product Name: Sodium Hypochlorite 5.25%

CAS Number: 7681-52-9

Molecular Formula: ClNaO

Molecular Weight: 74.44 g/mol

Grade: Technical Grade

Purity / Concentration: 5.25%

Synonyms: Bleach, Liquid Chlorine

PRODUCT OVERVIEW

Sodium Hypochlorite 5.25% is a technical-grade liquid solution widely recognized for its powerful oxidizing and disinfectant properties. With a verified assay of 5.35% and low impurity levels, this product is a reliable solution for industrial water treatment and chemical processing applications.

Grade Significance: Technical grade indicates that the product is manufactured to meet industrial performance standards, ensuring it is suitable for large-scale applications where high efficacy is required.

CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (Titration)	%	5.3	5	5.6	Titration
Specific Gravity (20°C)	g/mL	1.0882	—	—	Hydrometer @ 25°C
Copper Cu	ppm	0.05	0	0.21	ICP-MS
Iron	ppm	0.3	0	1	ICP
Nickel Ni	%	≤ 0.21 %	—	—	ICP-MS
Sodium Na	ppm	0.17	0	0.25	ICP-MS

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

PHYSICAL & CHEMICAL PROPERTIES

Appearance	Pale yellow-green liquid	Odor	Chlorine-like odor
Form	Liquid solution	Boiling Point	Not characterized for the 5.25% solution
Melting / Freezing Point	Not characterized for the 5.25% solution	Flash Point	Not applicable
Specific Gravity	1.08	Solubility	Complete water solubility
Molecular Formula	ClNaO	Molecular Weight	74.44 g/mol
Density (25°C)	1.08 g/mL		

APPLICATIONS

1. **Water Treatment** — Used effectively in drinking water and wastewater systems to control microbial growth and ensure biological safety.
2. **Chemical Processing** — Functions as a precise pH adjuster and a strong oxidizing agent in various industrial chemical syntheses.
3. **Textile Manufacturing** — Utilized as a bleaching agent to achieve desired fabric whiteness and remove impurities during processing.
4. **Industrial Cleaning** — Acts as a potent disinfectant to sanitize surfaces and equipment in high-volume industrial environments.

STORAGE & HANDLING

Proper storage is critical because Sodium Hypochlorite is sensitive to light and heat, which can cause rapid degradation and loss of concentration. Due to its corrosive nature, it must be kept in a cool, well-ventilated area to prevent the release of hazardous vapors and to mitigate the risk of skin and eye damage.

- Store in a cool, dry place away from direct sunlight.
- Use materials compatible with sodium hypochlorite, such as HDPE or glass containers.
- Avoid contact with acids and reducing agents to prevent hazardous reactions.
- Use appropriate personal protective equipment (PPE) including gloves and goggles.
- Ensure adequate ventilation in storage areas to minimize inhalation risks.

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:

- H314: Causes severe skin burns and eye damage [Danger Skin corrosion/irritation]
- H318: Causes serious eye damage [Danger Serious eye damage/eye irritation]
- H400: Very toxic to aquatic life [Warning Hazardous to the aquatic environment, acute hazard]
- H410: Very toxic to aquatic life with long lasting effects [Warning Hazardous to the aquatic environment, long-term hazard]

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.