

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 versatile technical grade oxidizing agent commonly referred to as liquid bleach. With a verified assay of 5.3% and a specific gravity of 1.0882 g/mL, this solution is an essential chemical for effective microbial control and industrial bleaching processes.

Grade Significance: Technical Grade indicates that this product is manufactured for industrial and commercial applications where chemical efficacy is required but pharmaceutical or food-grade purity standards are not necessary.

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 @ 20°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** — This product is widely utilized for the disinfection of drinking water and the treatment of wastewater to effectively neutralize harmful microbial growth.
2. **Chemical Processing** — It acts as a reliable pH adjuster and a powerful oxidizing agent in a variety of complex industrial chemical reactions.
3. **Textile Industry** — The solution is employed for the industrial bleaching of fabrics, ensuring uniform color removal and preparation for dyeing.
4. **Industrial Cleaning** — It serves as a heavy-duty sanitizer for facility maintenance, helping to maintain strict hygiene standards in large-scale operations.

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. It should be kept in a cool, well-ventilated area away from incompatible materials to prevent hazardous reactions and maintain product integrity.

- 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:

- 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.

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