

### 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

Sodium Hypochlorite 12.5% is a high-strength technical grade liquid bleach solution widely utilized for disinfection and oxidation. With a controlled assay of 12.7% and minimal impurities like iron at 0.5 ppm, this product offers reliable consistency for demanding industrial applications.

**Grade Significance:** Technical grade indicates that this product is manufactured for industrial efficacy and performance rather than pharmaceutical or food-grade purity, making it the cost-effective standard for large-scale operations.

### CERTIFICATE OF ANALYSIS — TYPICAL VALUES

PARAMETER	UNIT	TYPICAL	MIN	MAX	TEST METHOD
Assay (wt%)	%	12.7	12	13	Titration with Sodium Thiosulfate
Color (APHA)	APHA	20	—	50	Visual Comparison
Specific Gravity (20°C)	g/mL	1.21	1.2	1.22	Hydrometer
Iron (Fe)	ppm	0.5	—	2	ICP-OES
Sodium Chlorate Na ClO <sub>3</sub>	ppm	500.0	—	1000.0	Ion Chromatography
Free Alkali As NaOH Pct	%	0.6	0.5	1	Titration with Hydrochloric Acid

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

### PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Pale yellow liquid	<b>Odor</b>	Chlorine-like odor
<b>Form</b>	Liquid solution	<b>Boiling Point</b>	40°C (104°F)
<b>Melting / Freezing Point</b>	-6°C	<b>Flash Point</b>	null
<b>Specific Gravity</b>	1.2	<b>Solubility</b>	Highly water soluble, reacts with aqueous solutions
<b>Molecular Formula</b>	ClNaO	<b>Molecular Weight</b>	74.44 g/mol
<b>Vapor Pressure (20°C)</b>	0.5 mmHg	<b>Viscosity (25°C)</b>	1.0 cP
<b>Refractive Index (20°C)</b>	1.335	<b>Density (25°C)</b>	1.2 g/mL

## APPLICATIONS

1. **Water Treatment** — It is essential for the effective treatment of drinking water and wastewater to control algae growth and neutralize foul odors.
2. **Textiles** — The solution is employed as a powerful bleaching agent to whiten fabrics and fibers during the manufacturing process.
3. **Chemical Manufacturing** — It serves as a versatile oxidizing agent in various chemical synthesis pathways and industrial reactions.
4. **Industrial Processing** — The product is used to precisely adjust pH levels in diverse industrial systems, ensuring optimal operational conditions.

## STORAGE & HANDLING

Proper storage is critical because this solution is corrosive and releases gases that can degrade container integrity if exposed to heat or sunlight. Maintaining a cool, dark, and well-ventilated environment is essential to prevent decomposition and minimize the risk of skin burns or environmental hazards.

- 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:

- 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.*

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