

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 (Titration)	%	12.5	12	13	Titration
Specific Gravity (20°C)	g/mL	1.21	—	—	Hydrometer @ 25°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** — 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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