

Technical Data Sheet (TDS)

1. Product Overview

- Product Name: Sodium Hypochlorite Aqueous Solution
- English Name: Sodium Hypochlorite
- CAS Number: 7681-52-9
- Formula: NaClO
- Molecular Weight: 74.44 g/mol
- Product Characteristics: High-efficiency oxidizing disinfectant and bleaching agent. Releases chlorine gas in use, which has strong bactericidal, virucidal, and fungicidal effects. Stable under cool, sealed conditions; compatible with most inorganic materials (avoid metals like aluminum, zinc). Suitable for disinfection, bleaching, and wastewater treatment.

2. Technical Specifications (Complies with GB/T 19106-2013)

Item	Specification
Appearance	Colorless to pale yellow transparent liquid
Available Chlorine Content	10.0-15.0%
Free Alkali (as NaOH)	0.1-1.0%
pH Value (25°C)	11.0-13.0
Heavy Metals (Pb)	≤ 0.0005%
Arsenic (As)	≤ 0.0001%
Iron (Fe)	≤ 0.001%
Mercury (Hg)	≤ 0.000005%
Cadmium (Cd)	≤ 0.00005%
Density (25°C)	1.15-1.25 g/cm ³
Viscosity (25°C)	10-20 mPa·s
Stability	Retains ≥ 80% available chlorine after 6 months (25°C)

3. Product Advantages

1. **Efficient Disinfection:** Broad-spectrum bactericidal/virucidal effect, kills 99.9% of microorganisms (bacteria, viruses, fungi) within minutes.
2. **Strong Bleaching Power:** Effective for bleaching textiles, paper, and surfaces without residual color.
3. **Cost-Effective:** Low dosage; easy to use and dilute; reduces disinfection/bleaching costs.
4. **Rapid Action:** Fast-acting disinfectant; no prolonged contact time required.
5. **Versatile Applications:** Suitable for water treatment, surface disinfection, and bleaching across industries.

4. Application Fields

- **Water Treatment:** Municipal drinking water disinfection; sewage treatment; swimming pool water sterilization.
- **Disinfection:** Surface disinfection of medical facilities, food processing plants, and public areas; equipment sterilization.



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- **Bleaching:** Textile, paper, and pulp bleaching; stain removal from fabrics and surfaces.
- **Wastewater Treatment:** Deodorization and sterilization of industrial wastewater (breeding, food processing).
- **Other Fields:** Food preservation (surface disinfection); household cleaning (mold removal).

5. Usage Methods

- **Dosage:**
 - Drinking Water Disinfection: 0.5-2.0 mg/L (as available chlorine).
 - Sewage Treatment: 5-20 mg/L (as available chlorine).
 - Surface Disinfection: Dilute to 0.5-1.0% available chlorine solution; spray or wipe.
 - Bleaching: Dilute to 1-5% available chlorine solution; soak for 10-30 minutes.
- **Usage:** Dilute with water before use; stir evenly; avoid contact with acids or ammonia.
- **Optimal Conditions:** Use at 15-35°C; avoid direct sunlight (reduces chlorine content); pH 7-9 for best disinfection effect.

6. Packaging & Storage

- **Packaging Specifications:**
 - 25 kg HDPE plastic drums (industrial use)
 - 200 kg HDPE plastic drums (bulk use)
 - 1000 kg IBC totes (large-scale projects)
 - Custom packaging available upon request.
- **Storage Conditions:** Store in cool, dark, well-ventilated warehouse ($\leq 30^{\circ}\text{C}$); keep tightly closed; avoid direct sunlight and high temperature; store separately from acids, reducing agents, and organic materials.
- **Shelf Life:** 6 months (unopened, specified conditions); use promptly after opening.
- **Transportation:** UN 1791 (Class 8 Corrosion, Oxidizer); transport in corrosion-resistant vehicles; avoid collision, leakage, and mixing with incompatible substances.

7. Safety & Protection

- Highly corrosive and oxidizing; toxic to aquatic organisms.
- Operators must wear chemical goggles, face shield, nitrile gloves, and acid-resistant clothing.
- In case of contact, rinse with plenty of water for ≥ 15 minutes; seek medical attention immediately.
- Do not ingest; if swallowed, rinse mouth with water and consult a doctor.
- Avoid mixing with acids (releases toxic chlorine gas); dispose of waste properly to protect the environment.

8. Quality Assurance

- Manufactured in accordance with ISO 9001 quality management system standards.
- Each batch is tested with a Certificate of Analysis (COA) to meet GB/T 19106-2013.
- Provide technical support: dosage adjustment, dilution method optimization, and safety operation guidance.