Safety Data Sheet (MSDS)

- Sodium Chloride (Food Grade)

(Compliant with GB/T 16483, GB/T 17519; Adapts to GHS Rev.9, IMDG, IATA Standards)**Revision Date: 29 FEB 2026**

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifiers

- Product Name: Sodium Chloride (Food Grade)
- Product Number: SC-20260229
- Brand: SIGALD
- CAS-No.: 7647-14-5
- EINECS/EC-No.: 231-598-3
- MDL Number: MFCD00003477
- Synonyms: Common salt; Table salt; Food Grade Salting Agent1.2 Details of the supplier of the safety data sheet
- Company: NEWAY SINOPHC TECH. LIMITED
- Address: RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE
- Telephone: +86-021-50350029
- Fax: +86-021-503500291.3 Emergency telephone
- Emergency Phone #: +86-021-50350029 (CHEMTREC)1.4 Relevant Identified Uses and Uses Advised Against
- Identified Uses: Food additive (flavor enhancer, salting agent, preservative aid, texture modifier, electrolyte supplement) for meat, aquatic products, dairy, bakery, confectionery, sauce, seasoning, beverage and all processed food industries; also used as a brining agent and dough conditioner.
- Uses Advised Against: Avoid excessive inhalation of dust for asthmatic individuals; no restricted uses for food-grade application.

SECTION 2: Hazards Identification

2.1 GHS ClassificationNot a hazardous substance or mixture (GHS 0 category); mild eye/respiratory irritation may occur from bulk dust inhalation (no formal GHS classification); excessive oral ingestion may cause electrolyte imbalance.2.2 GHS Label Elements

- Hazard Pictograms: None
- Signal Word: None
- Hazard Statements: None
- Precautionary Statements:
  - P261: Avoid breathing dust
  - P304+P340: If inhaled: Move person to fresh air and keep comfortable for breathing
  - P337+P313: If eye irritation persists: Get medical advice/attention

- P405: Store locked up (for bulk industrial packaging, non-food)2.3 Physical and Chemical HazardsNo physical/chemical hazards; non-combustible, no explosion risk, no oxidative properties; non-hygroscopic, extremely stable under normal food processing and storage conditions; highly soluble in water, slightly soluble in ethanol, insoluble in organic solvents.2.4 Health Hazards
- No acute/chronic systemic toxicity at normal food use doses; mild transient eye/respiratory irritation in sensitive individuals from bulk dust contact; no skin irritation/sensitization, no known allergenicity.
- Essential electrolyte for the human body (Na^+ /Cl^-); excessive oral ingestion may cause thirst, nausea, vomiting or electrolyte imbalance; long-term excessive intake may be associated with hypertension, no adverse effects at normal dietary levels.
- Natural mineral, widely used in food industry for thousands of years with confirmed food safety.2.5 Environmental Hazards
- Low environmental risk; biodegradation not applicable (inorganic compound); no toxic effects on aquatic/terrestrial organisms at normal release levels.
- No acute aquatic toxicity (Zebrafish LC_{50} ,96h >10000 mg/L); no bioaccumulation potential (inorganic ions, no biological adsorption); excessive release may cause slight water salinization, no soil/water pollution at normal use.2.6 Other HazardsNo caking under normal storage conditions; no other hazards for food-grade application.

SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: Pure inorganic compound
- Chemical Name: Sodium Chloride
- Formula: NaCl
- Molecular Weight: 58.44
- CAS-No.: 7647-14-5

Component	Classification	Concentration (w/w)	CAS No.	Hazard Statements
Sodium Chloride	Non-hazardous	≥99.5%	7647-14-5	None
Calcium Sulfate (trace)	Non-hazardous	≤0.03%	7778-18-9	None
Magnesium Chloride (trace)	Non-hazardous	≤0.01%	7786-30-3	None
Water	Non-hazardous	≤0.5%	7732-18-5	None

SECTION 4: First Aid Measures

4.1 Description of First-Aid Measures

- **Inhalation**: Move victim to fresh air, keep airway open. Rinse mouth with water; no special treatment if no discomfort. Consult a doctor if coughing/irritation persists for more than 2 hours.
- **Skin Contact**: Brush off residual powder, rinse affected area with running water for 3-5 minutes. Dry skin thoroughly; no further treatment needed (no skin irritation).
- **Eye Contact**: Rinse eyes cautiously with plenty of running water for 5-10 minutes (hold eyelids open). Remove contact lenses if present and easy to do. Consult a doctor only if mild irritation persists.

- **Ingestion**: Rinse mouth with water, drink plenty of plain water (do not induce vomiting). No special treatment for normal ingestion; consult a doctor if excessive intake causes severe nausea/vomiting or electrolyte imbalance.4.2 Most Important Symptoms and Effects
- Acute: Mild transient eye/respiratory irritation from bulk dust; thirst, nausea from excessive oral ingestion.
- Delayed: No known delayed toxic effects based on comprehensive toxicological testing.4.3 Indication of Immediate Medical AttentionNo immediate medical attention required for normal food-grade handling/ingestion; consult a doctor only if irritation symptoms persist or excessive intake causes severe discomfort.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- **Suitable**: All common fire-extinguishing media (water spray, CO_2, dry chemical powder, foam).
- **Unsuitable**: None (no fire hazards associated with the product).5.2 Special Hazards Arising from the Substance or Mixture
- Non-combustible; no decomposition at high temperature (melts at 801℃, boils at 1465℃); no hazardous gases or combustion products produced during fire or normal heating.
- No flammable vapors/gases produced during normal storage and handling.5.3 Advice for Firefighters
- Wear standard fire-fighting gear (no special protective equipment required); fight fire from upwind.
- Cool exposed containers with water spray if near fire (prevent thermal expansion); no special firefighting precautions needed.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions

- Wear N95 dust mask and disposable food-grade nitrile gloves for large spills (to avoid dust inhalation/skin contact); ensure good ventilation in the spill area.
- No open flames/sparks required (no fire risk); no special PPE for small spills.6.2 Environmental Precautions
- Sweep up spilled powder to avoid excessive entry into drains/sewers (may cause slight salinization); no other environmental precautions needed (non-toxic).6.3 Methods and Materials for Containment and Cleaning Up
- **Small Spill**: Sweep into a sealed HDPE container for reuse; wipe the area with a dry cloth (dispose as general waste).
- **Large Spill**: Collect with a dust-free vacuum cleaner or shovel into sealed food-grade drums for reuse; no need for neutralization (non-corrosive, non-toxic).
- **Note**: Avoid wetting the powder during cleanup (prevents slippery surfaces).6.4 Reference to Other SectionsSee Section 13 for waste disposal; Section 8 for PPE details.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

- Operate in a well-ventilated area to prevent dust accumulation (may cause mild irritation).
- Use dry food-grade equipment/tools (HDPE, stainless steel) for weighing/mixing; avoid generating excessive dust.
- Hygiene Measures: Wash hands/face thoroughly with soap and water after handling; do not eat/drink/smoke in the processing area.7.2 Conditions for Safe Storage
- **Storage Type**: Store in a cool, dry, well-ventilated food-grade warehouse; temperature ≤30℃, relative humidity ≤75% (non-hygroscopic, no strict humidity limit).
- **Containers**: Sealed food-grade HDPE plastic drums, paper bags or metal cans; label clearly with product name, batch number and food grade mark.
- **Incompatibilities**: No significant incompatibilities; stable with all food ingredients/additives (acidulants, sweeteners, stabilizers, preservatives); no reaction with common food contact materials.
- **Separation**: Store separately from odorous substances (no odor absorption); no special separation requirements for other food raw materials/additives.
- **Shelf Life**: **Unlimited** for unopened food-grade packaging (inorganic compound, extremely stable); 12 months after opening (to avoid contamination).7.3 Specific End UseOnly for food production as flavor enhancer and salting agent; compliant with GB 2760/FDA/EC dosage limits (GMP for all food categories).

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- No official occupational exposure limits (OEL) for food-grade sodium chloride; follow general industrial dust limit (10 mg/m³ TWA) for bulk handling (national occupational health standards).
- No PEL/REL established by US OSHA/NIOSH (non-hazardous substance).8.2 Exposure Controls
- **Engineering Controls**: Local exhaust ventilation (air exchange rate ≥6 times/hour) for bulk handling/loading/unloading; closed mixing systems to minimize dust release.
- **Personal Protective Equipment (PPE)**:
  - **Respiratory Protection**: N95 dust mask (**only** for bulk dust handling; no respirator required for normal use).
  - **Eye/Face Protection**: Food-grade safety glasses (recommended for large-scale dust handling; no face shield required).
  - **Skin Protection**: Disposable food-grade nitrile gloves (optional for normal handling; mandatory for large-quantity processing).
  - **Other**: Dust-proof food-grade overalls and non-slip shoes (for industrial processing).8.3 Environmental Exposure Controls
- No special environmental exposure controls; use closed transfer systems to prevent dust release; no wastewater/air pollution associated with handling.

SECTION 9: Physical and Chemical Properties

Property	Details (25℃, 1 atm)
Physical State	White crystalline powder/crystals
Color	Pure white
Odor	Odorless
Taste	Pure salty, no bitter/astringent aftertaste
Melting Point	801℃
Boiling Point	1465℃
Flammability	Non-combustible (NFPA Flammability: 0)
Flash Point	Not applicable
Autoignition Temperature	Not applicable
Vapor Pressure	<0.001 kPa (25℃)
Vapor Density	2.0 (Air=1, theoretical)
Relative Density (Water=1)	2.17
pH Value (5% aqueous solution)	6.5-7.5 (Neutral)
Water Solubility	Highly soluble (36.0 g/100mL at 25℃)
Solubility	Slightly soluble in ethanol (0.05 g/100mL); insoluble in ether/benzene/chloroform
Hygroscopy	Non-hygroscopic
Viscosity	N/A (solid; 5% aqueous solution: 2.1 mPa·s)
Hardness	2.5 (Mohs scale)
Corrosivity	Non-corrosive to metal/plastic/glass (food-grade materials)

SECTION 10: Stability and Reactivity

10.1 Chemical Stability: **Extremely stable** under all normal food processing and storage conditions (inorganic ionic compound); no decomposition, no oxidation, no hydrolysis at 0-150℃; stable in acidic/neutral/alkaline food systems (pH 2.0-12.0).10.2 Possibility of Hazardous Reactions:

- No hazardous reactions with water, food ingredients or common food additives (acidulants, sweeteners, stabilizers, preservatives) under any normal food processing conditions.
- Reacts with strong acids (e.g., concentrated sulfuric acid) at high temperature to produce hydrogen chloride gas (**industrial conditions only, no food use**).10.3 Conditions to Avoid: High temperature industrial processing with strong acids (non-food use); no adverse conditions for food-grade application.10.4 Incompatible Materials: Concentrated strong acids (industrial grade) at high temperature; no incompatible materials for food-grade use.10.5 Hazardous Decomposition Products: None (inorganic compound, no decomposition at food processing temperatures); no toxic gases produced.10.6 Hazardous Polymerization: Will not occur under any conditions (inorganic compound, no polymerization).

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

- **Acute Toxicity**: Oral (Rat, LD_{50}) 3000 mg/kg (excessive dose); Dermal (Rabbit, LD_{50}) >10000 mg/kg; Inhalation (Rat, LC_{50}) >5000 mg/m³/4h – **Practically non-toxic at normal use**.

- **Skin Corrosion/Irritation**: No skin irritation (Rabbit, 24h exposure; GHS 0 category); no corrosion, no sensitization.
- **Serious Eye Damage/Irritation**: Mild transient eye irritation from bulk dust (GHS 0 category); no irreversible eye damage.
- **Respiratory Irritation**: Mild transient respiratory irritation from bulk dust (GHS 0 category).
- **Germ Cell Mutagenicity**: Negative (Ames test, chromosome aberration test; no genotoxicity).
- **Carcinogenicity**: IARC Group 3 (not classifiable as to carcinogenicity to humans; no evidence of carcinogenicity).
- **Reproductive Toxicity**: No reproductive/developmental toxicity (rat feeding test at 5000 mg/kg/day; safe for maternal/fetal health).
- **Specific Target Organ Toxicity**: No single/chronic target organ toxicity at normal dietary levels; essential electrolyte for human body, maintains osmotic pressure and nerve/muscle function.11.2 Additional InformationSodium chloride is an essential nutrient for humans/animals; daily dietary requirement is 2-6 g for adults; approved by all international food safety authorities as a safe food additive with no restricted use at normal levels.

SECTION 12: Ecological Information

12.1 Toxicity:

- Aquatic: Zebrafish LC_{50} (96h) >10000 mg/L, Daphnia EC_{50} (48h) >10000 mg/L – **Non-toxic**; slight growth inhibition only at extremely high salinization levels.
- Terrestrial: No toxic effects on soil microorganisms/plants at normal use levels; excessive soil content may cause slight salinization (no food-grade application risk).12.2 Persistence and Degradability: Biodegradation not applicable (inorganic compound); remains as Na^+ /Cl^- ions in environment, naturally diluted by water/soil.12.3 Bioaccumulative Potential: Log Kow = -1.34 – **No bioaccumulation potential** (inorganic ions, no adsorption to biological tissues/organisms).12.4 Mobility in Soil: High mobility (soluble ions); no adsorption to soil particles, but naturally diluted by groundwater, no leaching risk at normal food use release levels.12.5 PBT/vPvB Assessment: Not classified as PBT/vPvB (inorganic compound, no bioaccumulation, no persistence risk at normal use).12.6 Other Adverse Effects: No known long-term ecological effects; no soil/water pollution at normal food-grade application and disposal.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- **Uncontaminated Product Waste**: Reuse directly (no quality degradation); expired/contaminated waste can be disposed of as general solid waste (non-hazardous) or dissolved in water for municipal sewage treatment (no toxic impact).
- **Packaging Waste**: Rinse containers thoroughly with water (meet food hygiene standards); recycle/dispose of as non-hazardous plastic/paper/metal waste (no residual hazards).13.2 Disposal Compliance: Comply with China General Solid Waste Pollution Control Law, Food

Safety Law and local environmental regulations; no hazardous waste disposal procedures required.

SECTION 14: Transport Information

14.1 UN Number: None (non-hazardous substance)14.2 UN Proper Shipping Name: None (not a hazardous good)14.3 Transport Hazard Class(es): None14.4 Packaging Group: None14.5 Environmental Hazards: IMDG Marine Pollutant: **No**; ADR/RID: No14.6 Special Precautions for User

- Transport in sealed food-grade packaging (HDPE drums, paper bags, metal cans) to prevent contamination and dust release.
- Use covered transport vehicles; avoid rain, snow and direct sunlight during transport (no quality impact, only for contamination prevention).
- Secure containers to prevent tipping/collision; no mixing with toxic/harmful/odorous substances in the same vehicle.
- No special transport documentation required (non-hazardous food additive); comply with general food raw material transport regulations.14.7 Further Information: Complies with ADR/RID, IMDG, IATA-DGR regulations for non-hazardous goods; no special transport restrictions for food-grade sodium chloride.

SECTION 15: Regulatory Information

15.1 National/International Regulations

- **China**: Compliant with GB 2760 (National Food Safety Standard for Food Additives), GB 5461-2021 (National Food Safety Standard for Edible Salt); classified as non-hazardous chemical; approved for use in **all food categories** with GMP dosage limits.
- **EU**: Compliant with EC 1333/2008; no E-code (natural food ingredient); REACH registered (no SVHC); approved for food use with no dosage limit (GMP).
- **US**: TSCA listed (CAS 7647-14-5); FDA GRAS (21 CFR Part 184.1755); approved for use in all food and beverage categories with no dosage limit (GMP).
- **International**: Compliant with Codex Alimentarius Commission (CAC) standards; FCC/USP certified (food grade); recognized as a safe natural food ingredient worldwide with no restricted use.15.2 Other Regulations: Comply with local food safety, occupational health and environmental regulations; food production use must meet GMP/HACCP standards.

SECTION 16: Other Information

- **Further Information**: This MSDS is for **Food Grade Sodium Chloride (≥99.5%)** (CAS 7647-14-5), compliant with GB/T 16483, GB/T 17519 and GHS Rev.9. It applies to safe handling, storage, transport and disposal of the product for food production use. The supplier is not liable for damage caused by improper industrial use (non-food) or non-compliance with storage precautions.
- **Revision Date**: 29 FEB 2026
- **Version**: V1.0