



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

Safety Data Sheet (MSDS)

- Sodium Diacetate (Food Grade)

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

Date: 28 FEB 2026

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

1.1 Product Identifiers

- Product Name: Sodium Diacetate (Food Grade)
- Product Number: SDA-20260228
- Brand: SIGALD
- CAS-No.: 126-96-5
- EINECS/EC-No.: 204-814-9
- MDL Number: MFCD00012064
- Synonyms: Sodium hydrogen diacetate; Diacetic acid sodium salt; Food grade preservative for grain and bakery

1.2 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
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1.3 Emergency telephone

- Emergency Phone #: +86-021-50350029 (CHEMTREC)

1.4 Relevant Identified Uses and Uses Advised Against

- Identified Uses: Food additive (preservative, mold inhibitor, acidity regulator, humectant) for grain, bakery, meat, dairy, condiment, beverage and canned food industries; feed preservative (food-grade derivative).
- Uses Advised Against: Not for pharmaceutical injection; avoid excessive use beyond food additive dosage limits; no direct use in strong alkaline food systems (pH>8.0).

SECTION 2: Hazards Identification

2.1 GHS Classification Skin irritation (Category 2); Eye irritation (Category 2); Specific target organ toxicity - single exposure (Category 3, respiratory tract)

2.2 GHS Label Elements

- Hazard Pictograms: (Exclamation mark)
- Signal Word: **Warning**
- Hazard Statements:
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation
 - H335: May cause respiratory irritation
- Precautionary Statements:

- P264: Wash skin thoroughly after handling
- P271: Use only outdoors or in a well-ventilated area
- P280: Wear protective gloves/eye protection
- P302+P352: If on skin: Wash with plenty of water
- P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P312: Call a POISON CENTER or doctor/physician if you feel unwell
- P332+P313: If skin irritation occurs: Get medical advice/attention
- P337+P313: If eye irritation persists: Get medical advice/attention

2.3 Physical and Chemical Hazards Non-combustible, no explosion risk; no hazardous chemical reactions under normal food processing and storage conditions; decomposes to acetic acid and sodium acetate at high temperature (>150°C) without toxic gases.

2.4 Health Hazards

- Local irritation: Dust or aqueous solution may cause mild skin redness, itching; causes serious eye irritation (redness, pain, tearing) in direct contact.
- Respiratory hazard: Inhalation of bulk dust may cause respiratory tract irritation (cough, chest tightness) in sensitive individuals.
- Acute oral toxicity: Low toxicity; excessive oral ingestion may cause mild gastrointestinal discomfort (nausea, abdominal distension) with no long-term adverse effects.
- **Food grade note:** Safe for human consumption when used in strict compliance with food additive dosage limits; no adverse effects from normal dietary intake.

2.5 Environmental Hazards Low environmental risk; fully biodegradable (metabolized by microorganisms to CO₂ and H₂O); no toxic effects on aquatic/terrestrial organisms at normal release levels; no bioaccumulation in the ecosystem.

2.6 Other Hazards Slightly hygroscopicity may cause minor caking under high humidity; no other hazards identified for food grade use under specified conditions.

SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: Pure organic sodium salt (food grade)
- Chemical Name: Sodium Diacetate
- Formula: C₄H₇ NaO₄
- Molecular Weight: 142.09
- CAS-No.: 126-96-5

| Component | Classification | Concentration (w/w) | CAS No. | Hazard Statements |
|-------------------------------|-------------------------------------|---------------------|-----------|-------------------|
| Sodium Diacetate (food grade) | Mild hazardous (GHS Cat.2 skin/eye) | ≥98.0% | 126-96-5 | H315, H319, H335 |
| Moisture | Non-hazardous | ≤2.0% | 7732-18-5 | None |
| Inorganic Salt Impurities | Non-hazardous | ≤0.5% | - | None |

SECTION 4: First Aid Measures



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4.1 Description of First-Aid Measures

- **Inhalation:** Move victim to fresh air, keep airway open. Loosen tight clothing. If coughing or difficulty breathing persists, call a doctor or poison control center.
- **Skin Contact:** Immediately remove contaminated clothing and shoes. Rinse affected skin with plenty of running water for 10-15 minutes. If irritation persists, seek medical advice. Wash contaminated clothing before reuse.
- **Eye Contact:** Immediately hold eyelids open and rinse eyes thoroughly with plenty of running water for 15-20 minutes (rinse from inner to outer corner). Remove contact lenses if present and easy to do. Do not rub eyes. Seek medical attention if irritation persists for more than 1 hour.
- **Ingestion:** Rinse mouth with plenty of water (do not swallow large amounts of water). Do not induce vomiting. If gastrointestinal discomfort (nausea, abdominal pain) occurs, call a doctor; provide the product name and CAS number for symptomatic treatment.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

- Acute effects: Skin/eye irritation from direct contact; respiratory tract irritation from dust inhalation; mild gastrointestinal discomfort from excessive oral ingestion.
- Delayed effects: No known delayed toxic effects based on comprehensive toxicological testing; prolonged skin contact may cause mild chronic dermatitis in sensitive individuals.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Medical attention is recommended for severe eye contact and persistent skin/respiratory irritation; no specific antidote, treat symptomatically (e.g., anti-irritation ointment for skin, eye drops for eye irritation).

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- Suitable Extinguishing Media: Water spray, dry chemical powder, carbon dioxide (CO₂), foam.
- Unsuitable Extinguishing Media: No limitations; avoid direct high-pressure water jet (to prevent dust spread).

5.2 Special Hazards Arising from the Substance or Mixture

- Non-combustible; no flammable or explosive gases produced during combustion.
- Decomposes at high temperature (>150°C) to produce acetic acid vapor (pungent odor), which may cause respiratory irritation; no toxic combustion products.
- Dust may form non-explosive suspensions in air (no explosion risk in normal food processing).

5.3 Advice for Firefighters

- Wear standard fire-fighting gear (dust mask, goggles, fire-resistant clothing); wear a self-contained breathing apparatus if acetic acid vapor is excessive.
- Fight fire from upwind; cool exposed containers with water spray to prevent thermal expansion and decomposition.

- Prevent fire water from entering food processing areas (avoid contamination of food raw materials).

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- Wear personal protective equipment (N95 dust mask, nitrile rubber gloves, safety goggles, dust-proof overalls) before cleaning up.
- Evacuate non-essential personnel from the spill area; ensure good ventilation to disperse dust/acetic acid vapor.
- Do not touch the spilled material with bare hands; do not inhale dust or vapor.

6.2 Environmental Precautions

- No special environmental precautions; the product is biodegradable and non-toxic. Prevent spilled material from entering sewers in large quantities (avoid temporary pH reduction of wastewater).

6.3 Methods and Materials for Containment and Cleaning Up

- **Small Spill (solid powder):** Gently sweep into a sealed HDPE plastic container with a plastic broom (no metal tools to avoid dust flying); reuse or dispose of as non-hazardous waste.
- **Large Spill (solid powder):** Contain with plastic dikes, collect with a dust-free vacuum cleaner into sealed drums; clean the contaminated area with a small amount of water, and collect the rinse water for neutralization (if necessary).
- **Spill of aqueous solution:** Absorb with inert absorbent (vermiculite, sand), collect the absorbent into sealed containers; rinse the area with water and discharge the rinse water in accordance with local environmental regulations.

6.4 Reference to Other Sections For waste disposal, see Section 13; for personal protection, see Section 8.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

- Operate in a well-ventilated area with local exhaust ventilation and dust collection equipment; avoid dust generation and inhalation during weighing/mixing.
- Use dedicated food-grade equipment (stainless steel/HDPE) for handling; no cross-use with strong alkaline food additives/raw materials.
- Strictly follow food additive dosage limits (no overuse); record the usage amount in detail.
- Wear specified personal protective equipment during operation; wash hands/face thoroughly with soap and water after handling.
- Avoid contact with strong alkalis (sodium hydroxide, potassium hydroxide) to prevent neutralization reaction (loss of efficacy).

7.2 Conditions for Safe Storage, Including Any Incompatibilities

- **Storage Conditions:** Store in a cool, dry, well-ventilated food-grade warehouse; temperature $\leq 25^{\circ}\text{C}$, relative humidity $\leq 65\%$; keep container tightly sealed to prevent moisture absorption (hygroscopic) and acetic acid vapor loss.
- **Segregation Storage:** Store separately from strong alkalis, strong oxidizing agents and food raw materials with strong alkalinity; set up a dedicated storage area with clear product labels.
- **Packaging Requirements:** Use sealed food-grade HDPE plastic drums or paper bags with inner PE liner; mark the product name, CAS number, dosage limit and hazard warning on the package.
- **Shelf Life: 24 months** (unopened, under specified storage conditions); 6 months after opening (seal tightly and use as soon as possible, check for caking/color change before use).
- **Inventory Management:** Implement "first-in, first-out" principle; conduct regular quality inspections (appearance, pH, purity).

7.3 Specific End Use Only for food production as preservative/mold inhibitor/acidity regulator; strictly comply with national food additive usage standards and dosage limits.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- **Occupational Exposure Limit (OEL):** No official national/international OEL for food-grade sodium diacetate; follow general industrial dust limit ($10 \text{ mg/m}^3 \text{ TWA}$) for bulk dust handling.
- **Biological Exposure Limit (BEL):** No specific limit for food grade use.

8.2 Exposure Controls

- **Engineering Controls:** Install local exhaust ventilation and high-efficiency dust collection equipment at the operation post; maintain good air circulation in the storage/operation area.
- **Personal Protective Equipment (PPE):**
 - **Respiratory Protection:** Wear N95/P95 dust mask during dry operation (weighing, mixing); no respiratory protection needed for aqueous solution handling.
 - **Eye/Face Protection:** Wear impact-resistant safety goggles with side shields (prevent dust/solution splashing into eyes).
 - **Skin Protection:** Wear chemical-resistant nitrile rubber gloves (length $\geq 30\text{cm}$) and dust-proof food-grade overalls; wear anti-slip plastic shoes.
 - **Hand Washing:** Set up dedicated hand washing facilities near the operation area with neutral soap and running water.
- **Environmental Exposure Controls:** Set up dust collection and treatment systems; prevent dust from escaping into the environment; no special control for aqueous solution discharge (after neutralization if needed).

8.3 Monitoring

- Regularly monitor the dust concentration in the operation area (at least once a quarter); ensure it meets general industrial dust limits.

- Conduct regular occupational health examinations for operators (at least once a year), focusing on skin and respiratory system.

SECTION 9: Physical and Chemical Properties

| Property | Details (25°C, 1 atm) |
|---------------------------------|---|
| Physical State | White crystalline powder/crystals |
| Color | Pure white (slightly off-white allowed for food grade) |
| Odor | Slight pungent acetic acid odor |
| Taste | Slightly acidic and salty |
| Melting Point | 120~126°C (melts with slight decomposition) |
| Boiling Point | Not applicable (decomposes before boiling) |
| Flammability | Non-combustible (NFPA Flammability: 0) |
| Flash Point | Not applicable |
| Autoignition Temperature | >300°C |
| Decomposition Temperature | >150°C (decomposes to acetic acid + sodium acetate) |
| pH Value (10% aqueous solution) | 4.5-5.5 (weak acidic) |
| Water Solubility | 120 g/100mL (25°C), highly soluble; solubility increases with temperature |
| Solubility | Slightly soluble in ethanol; insoluble in ether, benzene, chloroform |
| Hygroscopy | Slightly hygroscopic (absorbs moisture in high humidity) |
| Density (25°C) | 1.26 g/cm ³ (solid) |
| Bulk Density | 0.7-1.0 g/cm ³ |
| Vapor Pressure | <0.001 kPa (25°C) (acetic acid vapor) |
| Viscosity | Not applicable (solid; 10% aqueous solution: 1.2 mPa·s at 25°C) |
| Corrosivity | Non-corrosive to stainless steel/HDPE; mild corrosivity to mild steel (no impact on food-grade equipment) |
| Reactivity | Reacts with strong alkalis to produce sodium acetate; stable with acids/neutral substances |

SECTION 10: Stability and Reactivity

10.1 Chemical Stability: **Highly stable** under normal food processing and storage conditions ($\leq 25^{\circ}\text{C}$, dry, sealed); no decomposition or quality change when used as specified for food grade.

10.2 Possibility of Hazardous Reactions:

- Reacts with **strong alkalis** (NaOH, KOH) to produce sodium acetate (loss of preservative efficacy); no violent reaction.
- Decomposes at high temperature ($>150^{\circ}\text{C}$) to release acetic acid vapor (pungent odor); no toxic decomposition products.
- No hazardous reactions with common food-grade ingredients (acids, sugars, starches, proteins, flavors).

10.3 Conditions to Avoid: High temperature ($>150^{\circ}\text{C}$), high humidity (hygroscopic caking), contact with strong alkalis, direct sunlight (acetic acid vapor loss).

10.4 Incompatible Materials: Concentrated strong alkalis (sodium hydroxide, potassium hydroxide), strong alkaline food additives (sodium carbonate, potassium carbonate), strong oxidizing agents (high concentration hydrogen peroxide).

10.5 Hazardous Decomposition Products: Acetic acid vapor (pungent, non-toxic) and sodium acetate (non-toxic); no toxic or harmful gases produced under any conditions.

10.6 Hazardous Polymerization: Will not occur under any conditions (organic sodium salt, no polymerization).

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

• **Acute Toxicity:**

- Oral (Rat, LD₅₀): 3200 mg/kg bw; Oral (Mouse, LD₅₀): 4100 mg/kg bw (low toxicity)
- Dermal (Rabbit, LD₅₀): >5000 mg/kg bw (no significant dermal absorption)
- Inhalation (Rat, LC₅₀): >10 mg/m³ (4-hour exposure, dust)

• **Skin Corrosion/Irritation:** Causes mild skin irritation (Rabbit, 4-hour exposure); redness and slight edema (GHS Cat.2); no corrosion.

• **Serious Eye Damage/Eye Irritation:** Causes serious eye irritation (Rabbit, 24-hour exposure); redness, pain and tearing (GHS Cat.2); no permanent eye damage.

• **Respiratory or Skin Sensitization:** No sensitizing effects (no allergic reaction from repeated exposure in animal tests).

• **Germ Cell Mutagenicity:** Negative in Ames test and chromosome aberration test; no mutagenicity at any dose.

• **Carcinogenicity:** IARC Group 3 (not classifiable as to its carcinogenicity to humans); no carcinogenic effect in long-term animal tests.

• **Reproductive Toxicity:** No reproductive toxicity (Rat, 1000 mg/kg bw/day for 90 days); no adverse effects on fertility and fetus.

• **Specific Target Organ Toxicity (Single/Repeated Exposure):** No target organ toxicity; repeated low-dose exposure has no adverse effects on liver, kidney and other organs.

• **Aspiration Hazard:** Low (solid powder; no aspiration hazard for aqueous solution).

11.2 Additional Information Toxicological properties are well studied; the key risk control for food grade is **avoiding direct contact with skin/eyes** and **preventing dust inhalation** during handling; no toxic risk for human consumption at normal dosage.

SECTION 12: Ecological Information

12.1 Toxicity:

- Aquatic toxicity (Zebrafish, LC₅₀): >5000 mg/L (96-hour exposure)
- Aquatic toxicity (Daphnia, EC₅₀): >3000 mg/L (48-hour exposure)
- Aquatic toxicity (Green Algae, EC₅₀): >5000 mg/L (72-hour exposure)
- Practically non-toxic to all aquatic organisms; no adverse effects at normal release concentrations.

12.2 Persistence and Degradability:

- Fully biodegradable in natural water/soil ($BOD_5 / COD = 0.75$); metabolized by microorganisms to CO_2 , H_2O and sodium ions within 7-10 days.
- No persistence in the environment; no hydrolysis under normal conditions ($25^\circ C$, pH 5.0-9.0).

12.3 Bioaccumulative Potential:

- Log Kow: -3.2 (no lipophilicity); no bioaccumulation in aquatic organisms (bioconcentration factor BCF <5).
- Does not accumulate in the food chain; sodium ions are natural inorganic ions in the ecosystem.

12.4 Mobility in Soil:

- Moderately mobile in soil (high water solubility, slight adsorption to soil organic matter); no leaching risk to groundwater (sodium ions are easily adsorbed by soil).
- Adsorption coefficient (Koc): 80-100 (moderate mobility); no groundwater contamination risk at normal use.

12.5 Results of PBT and vPvB Assessment:

- P (Persistence): No (biodegradable in <10 days)
- B (Bioaccumulation): No (BCF <5)
- T (Toxicity): No (aquatic toxicity >5000 mg/L)
- Not classified as PBT/vPvB (meets all environmental safety criteria).

12.6 Other Adverse Effects:

- Slight acidic property may cause temporary pH reduction of water/soil in large quantities; no long-term adverse effects on the ecosystem.
- Promotes the growth of beneficial soil microorganisms at low concentration; no inhibition of microbial activity.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- **Product Waste (food grade):** Unused/expired product is non-hazardous waste; can be disposed of with general industrial solid waste or dissolved in water for biological wastewater treatment (biodegradable).
- **Contaminated Packaging:** Rinse the packaging with a small amount of water (collect the rinse water for normal discharge); the rinsed packaging can be recycled as non-hazardous plastic/paper waste.
- **Spilled Material:** Collected spilled material can be reused (if not contaminated); contaminated spilled material is disposed of as product waste.
- **Aqueous Waste Solution:** Can be directly discharged into the municipal sewage system (meets national wastewater discharge standards); no neutralization needed for low concentration (1-5%).

13.2 Disposal Compliance:



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- Comply with China's *Solid Waste Pollution Control Law* and *Water Pollution Prevention and Control Law*; no hazardous waste disposal procedures required.
- Comply with international regulations (REACH, EPA); dispose of in accordance with local environmental protection rules.

SECTION 14: Transport Information

14.1 UN Number: ADR/RID: -; IMDG: -; IATA-DGR: -14.2 UN Proper Shipping Name: ADR/RID: Not dangerous goods; IMDG: Not dangerous goods; IATA-DGR: Not dangerous goods

14.3 Transport Hazard Class(es): ADR/RID: -; IMDG: -; IATA-DGR: -14.4 Packaging Group: ADR/RID: -;

IMDG: -; IATA-DGR: -14.5 Environmental Hazards: ADR/RID: No; IMDG Marine Pollutant: No; IATA-DGR: No

14.6 Special Precautions for User:
• Transport in ordinary closed transport vehicles; avoid mixed transport with strong alkalis, strong oxidizing agents and food raw materials.

- The vehicle is equipped with leak-proof facilities; avoid direct sunlight, rain, high temperature (>30°C) and violent collision during transport.

- No special requirements for drivers/escorts; follow normal road transport regulations.

14.7 Packaging Requirements:

- Use food-grade HDPE plastic drums or paper bags with inner PE liner (sealed); the packaging meets food safety and transport requirements.
- Mark the product name, CAS number, net weight, storage conditions and hazard warning (skin/eye irritation) on the package.

SECTION 15: Regulatory Information

15.1 National/International Regulations (Food Grade)

• China:

- GB 2760-2021 *National Food Safety Standard for the Use of Food Additives* (approved for all food categories; maximum usage: 0.5-5.0 g/kg according to food type)
- GB 1886.184-2016 *National Food Safety Standard for Food Additive Sodium Diacetate*
- *Hazardous Chemical Safety Management Regulation* (non-hazardous chemical classification)

• EU:

- EC 1333/2008 (food additive code: E262(ii); approved for all food categories; GMP dosage limit)
- REACH Regulation (listed in the EU Inventory; no SVHC classification)
- CLP Regulation (GHS classification: Skin/eye irritation Cat.2)

• US:

- FDA 21 CFR 173.310 (food additive approval; GRAS certification; no strict dosage limit, GMP use)
- OSHA 29 CFR 1910.1000 (general industrial dust limit for handling)

• International:

- Codex Alimentarius Commission (CAC): CODEX STAN 192-1995 (approved for food use; GMP dosage limit)
 - GHS Rev.9 (non-hazardous for transport; mild skin/eye irritation for handling)
- 15.2 Other Regulations:

- Comply with occupational health and safety regulations for operators (GBZ 2.1-2019 in China, OSHA in US).
- Food production enterprises must comply with GMP/HACCP standards; record the usage of sodium diacetate in detail.
- Comply with environmental protection regulations for storage, transport and disposal (no environmental pollution).

SECTION 16: Other Information

- **Further Information:** This MSDS is for **Food Grade Sodium Diacetate (CAS 126-96-5)**, compliant with GB/T 16483, GB/T 17519 and GHS Rev.9 standards. It is intended for safe handling, storage, transport and use in food production. The supplier is not liable for any damage caused by **improper use, mixed storage/transport with incompatible substances** or non-compliance with national food additive regulations.
- **Key Reminder for Food Use:** Strictly follow the dosage limit in GB 2760-2021; avoid use in strong alkaline food systems (pH>8.0) to prevent loss of efficacy; the product can be used in combination with other preservatives (sodium benzoate, potassium sorbate) for synergistic effect.
- **Revision Date:** 28 FEB 2026
- **Version:** 1.0