Safety Data Sheet (MSDS)

- Stevia Glycoside (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: Stevia Glycoside (Food Grade)
- Product Number: SG-20260229
- Brand: SIGALD
- CAS-No.: 57817-89-7
- EINECS/EC-No.: 261-167-8
- MDL Number: MFCD00149402
- Synonyms: Stevia extract; Rebaudioside A; Stevioside blend; Food Grade Non-nutritive Sweetener1.2 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 (non-nutritive sweetener, low-calorie sweetener) for beverage, confectionery, bakery, dairy, sauce, seasoning, functional food and low-sugar food industries; replaces sucrose for zero/low-calorie food formulation.
- 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).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/attention2.3 Physical and Chemical HazardsNo physical/chemical hazards; non-combustible, no explosion risk, no oxidative

properties; slight hygroscopicity, stable under normal food processing and storage conditions; soluble in water and hot ethanol, insoluble in cold organic solvents.2.4 Health Hazards

- No acute/chronic systemic toxicity; mild transient eye/respiratory irritation in sensitive individuals from bulk dust contact; no skin irritation/sensitization, no known allergenicity.
- No calorie contribution, not metabolized by the human body; no adverse gastrointestinal effects at food-grade application levels; no impact on blood sugar, suitable for diabetic and obese populations.
- Natural plant extract (from *Stevia rebaudiana Bertoni*), has been used as a sweetener for decades with confirmed food safety.2.5 Environmental Hazards
- Environmentally friendly; fully biodegradable (microbial degradation to natural saccharide derivatives and CO_2/H_2O); no toxic breakdown products.
- No acute aquatic toxicity (Zebrafish LC_{50},96h >20000 mg/L); no bioaccumulation potential; no soil/water pollution risk.2.6 Other HazardsSlight hygroscopicity may cause minor caking under high humidity; no other hazards for food-grade application.

SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: Purified natural extract (main active components: rebaudioside A, stevioside)
- Main Component: Rebaudioside A ($C_{44}H_{70}O_{23}$, MW 967.07)
- CAS-No.: 57817-89-7 (blend of stevia glycosides)

Component	Classification	Concentration (w/w)	CAS No.	Hazard Statements
Rebaudioside A	Non-hazardous	≥95.0%	58543-16-1	None
Stevioside	Non-hazardous	≤5.0%	57817-89-7	None
Water	Non-hazardous	≤5.0%	7732-18-5	None
Trace Plant Extract Residues	Non-hazardous	≤0.5%	-	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 water (do not induce vomiting). No special treatment required; no toxic effects from oral ingestion at food-grade doses.4.2 Most Important Symptoms and Effects
- Acute: Mild transient eye/respiratory irritation from bulk dust; no other adverse effects from normal handling or 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/accidental contact; consult a doctor only if irritation symptoms persist.

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; decomposes at high temperature (>200℃) to produce non-toxic carbon dioxide, water and small amounts of plant extract residues; no hazardous combustion products.
- 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
- No special environmental precautions; the product is non-toxic and biodegradable. Prevent large spills from entering drains/sewers only to avoid slight clogging (no pollution risk).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 into sealed food-grade drums for reuse; no need for neutralization (non-corrosive, non-toxic).

- **Note**: Avoid excessive wetting of the powder during cleanup (prevents sticky slurry formation).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 ≤25℃, relative humidity ≤60% (prevents slight hygroscopic caking).
- **Containers**: Sealed food-grade HDPE plastic drums/aluminum foil bags; label clearly with product name, batch number and "Keep Dry" warning.
- **Incompatibilities**: No significant incompatibilities; stable with most food ingredients/additives (acidulants, sweeteners, stabilizers); avoid long-term contact with strong acids/alkalines at high temperature (minor hydrolysis).
- **Separation**: No special separation requirements for common food raw materials/additives; store separately from industrial-grade strong corrosive chemicals.
- **Shelf Life**: 36 months (unopened, in specified storage conditions); 6 months after opening (if resealed tightly).7.3 Specific End UseOnly for food production as non-nutritive sweetener; compliant with GB 2760/FDA/EC dosage limits (GMP for most food categories).

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- No official occupational exposure limits (OEL) for food-grade stevia glycoside; 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 to off-white crystalline powder
Color	White
Odor	Odorless
Taste	Intense sweet (200-300× sucrose, Rebaudioside A)
Melting Point	198-202℃ (decomposition)
Boiling Point	N/A (decomposes before boiling)
Flammability	Non-combustible
Flash Point	Not applicable
Autoignition Temperature	>200℃ (decomposes)
Vapor Pressure	<0.0001 kPa (25℃)
Vapor Density	N/A (solid, no vapor)
Relative Density (Water=1)	1.28-1.32
pH Value (1% aqueous solution)	5.0-7.0
Water Solubility	Soluble (10 g/100mL at 25℃; increases with temperature)
Solubility	Soluble in hot ethanol; insoluble in ether/benzene/chloroform
Hygroscopy	Slightly hygroscopic
Viscosity	N/A (solid; 1% aqueous solution: 2-3 mPa·s)
Sweetness Multiple	200-300× sucrose (Rebaudioside A, 1% aqueous)
Corrosivity	Non-corrosive to metal/plastic/glass (food-grade materials)

SECTION 10: Stability and Reactivity

10.1 Chemical Stability: **Highly stable** under recommended storage/handling conditions (dry, sealed, ≤25℃); no decomposition under normal food processing conditions (0-121℃); stable in acidic/neutral food systems (pH 3.0-7.0).10.2 Possibility of Hazardous Reactions:

- Minor hydrolysis to glycoside derivatives under strong acid/alkaline conditions and high temperature (>121℃ for long time) (non-hazardous, no loss of sweetness).
- No hazardous reactions with water, food ingredients or common food additives (acidulants, bulking agents, stabilizers, preservatives).10.3 Conditions to Avoid: High temperature (>200℃, decomposition), long-term contact with strong acids/alkalines at high temperature (hydrolysis), excessive moisture (caking).10.4 Incompatible Materials: Concentrated strong acid/alkaline solutions (industrial grade); no other significant incompatibilities for food-grade use.10.5 Hazardous Decomposition Products: Non-toxic carbon dioxide (CO_2), water and plant extract residues at >200℃; no toxic decomposition products.10.6 Hazardous Polymerization: Will not occur under any conditions (food-grade stevia glycoside).

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

- **Acute Toxicity**: Oral (Rat, LD_{50}) >10000 mg/kg; Dermal (Rabbit, LD_{50}) >20000 mg/kg; Inhalation (Rat, LC_{50}) >5000 mg/m³/4h – **Practically non-toxic**.

- **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; zero calorie, not absorbed by the human body, excreted unchanged; no impact on blood sugar or insulin.11.2 Additional InformationStevia glycoside is a natural non-nutritive sweetener extracted from the leaves of *Stevia rebaudiana Bertoni*; approved by FAO/WHO, FDA, EFSA and CFSA as a safe food additive; suitable for all population groups including diabetics, obese people, children and the elderly.

SECTION 12: Ecological Information

12.1 Toxicity:

- Aquatic: Zebrafish (LC_{50},96h) >20000 mg/L (non-toxic); Daphnia (EC_{50},48h) >20000 mg/L (non-toxic); Algae (EC_{50},72h) >10000 mg/L (non-toxic).
- Terrestrial: No toxic effect on soil microorganisms/plants; decomposed by soil microbes into natural saccharide derivatives, which can be used as microbial nutrient sources.12.2 Persistence and Degradability: Fully biodegradable (BOD_5 /COD >0.9); degraded by aerobic/anaerobic microorganisms into CO_2 and H_2O within 5-7 days (no environmental persistence).12.3 Bioaccumulative Potential: Log Kow = -3.25 (no bioaccumulation potential; water-soluble, rapidly degraded by organisms, no adsorption to biological tissues).12.4 Mobility in Soil: Moderate mobility; soluble in water, no strong adsorption to soil particles, but rapidly degraded by soil microbes, no leaching risk to groundwater.12.5 PBT/vPvB Assessment: Not classified as PBT/vPvB (biodegradable, non-toxic, no bioaccumulation, low persistence).12.6 Other Adverse Effects: No known long-term ecological effects; no soil/water pollution risk; degraded products are natural components of the environment.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- **Uncontaminated Product Waste**: Reuse directly (even if slightly caked, grind and use); expired waste can be disposed of as general solid waste (non-hazardous) or mixed with organic fertilizer (decomposes to microbial nutrients).
- **Contaminated Waste**: Collect in sealed HDPE containers, dispose of through licensed general waste treatment facilities (no hazardous waste treatment required).

- **Packaging Waste**: Rinse containers thoroughly with water (meet food hygiene standards); recycle/dispose of as non-hazardous plastic/foil 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 HDPE drums/aluminum foil bags to prevent dust release and hygroscopic caking.
- Use covered dry transport vehicles; avoid rain, snow, moisture and direct sunlight during transport (maintain relative humidity ≤60%).
- Secure containers to prevent tipping/collision; no mixing with industrial-grade strong acid/alkaline chemicals 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.

SECTION 15: Regulatory Information

15.1 National/International Regulations

- **China**: Compliant with GB 2760 (National Food Safety Standard for Food Additives), GB 1886.256-2021 (Food Additive Stevia Glycoside); classified as non-hazardous chemical; approved for use in all food categories with GMP dosage limits.
- **EU**: Compliant with EC 1333/2008; E960 (food additive code); REACH registered (no SVHC); approved for food use with GMP dosage limits.
- **US**: TSCA listed (CAS 57817-89-7); FDA GRAS (21 CFR Part 182.1892); 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); approved by FAO/WHO JECFA; recognized as a safe non-nutritive sweetener worldwide.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 Stevia Glycoside (Total Glycosides ≥95%, Rebaudioside A ≥95%)** (CAS 57817-89-7), 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 use (e.g., high-temperature strong acid/alkaline treatment) or non-compliance with storage precautions.

- **Revision Date**: 29 FEB 2026
- **Version**: V1.0