



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)

(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards)

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

1.1 Product Identifiers

- Product Name: Bitter Almond Extract
- Product Number: BAE-20260205
- Brand: SIGALD
- CAS-No.: 29883-15-6 (Amygdalin)
- Synonyms: Almond Extract; Amygdalin Extract; Prunus armeniaca Seed Extract

1.2 Details of the supplier of the safety data sheet

- Company: NEWAY SINOPHC TECH. LIMITED
- RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
- Telephone: +86-021-50350029
- Fax: +86-021-50350029

1.3 Emergency telephone

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

1.4 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

- Identified Uses: Pharmaceutical intermediate; health care product raw material (professional formulation only); scientific research reagent.
- Uses Advised Against: Not for direct oral consumption (hazardous if ingested in bulk); not for household use; not for use in food/infant products; not for medical injection without strict pharmaceutical formulation.

SECTION 2: Hazards Identification

| Summary of Emergency Measures | White to off-white crystalline fine powder. Harmful if swallowed in large quantity; mild eye irritation if direct contact; no skin/respiratory irritation in normal use. After inhalation: Move to fresh air and rest if discomfort occurs. In case of skin contact: Rinse skin with clean water for 5 minutes. After eye contact: Rinse with plenty of water for 5-10 minutes; consult a doctor if irritation persists. After swallowing: DO NOT induce vomiting; rinse mouth with water and seek medical attention immediately. Non-combustible. No risk of explosion. | |---|

2.1 GHS Classification

- Acute toxicity (oral), Category 4
- Eye irritation, Category 2A2.2 GHS Label Elements
- Hazard Pictogram: (Exclamation mark)
- Signal Word: **Warning**
- Hazard Statements:
 - H302: Harmful if swallowed
 - H319: Causes serious eye irritation



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- Precautionary Statements:
 - P264: Wash hands thoroughly after handling
 - P270: Do not eat, drink or smoke when using this product
 - P280: Wear protective gloves/eye/face protection
 - P301+P312: If swallowed: Call a POISON CENTER/doctor if you feel unwell
 - P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
 - P337+P313: If eye irritation persists: Get medical advice/attention
 - P405: Store locked up
 - P501: Dispose of contents/container to an approved waste disposal plant

2.3 Physical and Chemical HazardsBased on current information: Non-combustible; no explosive/oxidizing properties; no hazardous physical/chemical hazards under normal use.

2.4 Health HazardsBased on current information: Harmful if swallowed (releases cyanide in large quantity); mild eye irritation; no skin/respiratory toxicity in normal use; no mutagenicity/carcinogenicity in controlled dosage.

2.5 Environmental HazardsBased on current information: Low toxicity to aquatic organisms; fully biodegradable; no bioaccumulation potential; no long-term adverse environmental effects at normal use levels.

2.6 Other HazardsNo additional hazards identified.

SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: High-purity natural plant extract (single active component) | 3.1 Main Components | Prunus armeniaca Seed Extract (Amygdalin ≥98%) | | --- | ---
| | Formula | C₂₀H₂₇NO₁₁ (Amygdalin) | | Molecular Weight | 457.40 Da | | CAS-No.: | 29883-15-6 | | EC-No.: | 249-956-5 |

Hazardous Ingredients

Component	Classification	Concentration (w/w)
Amygdalin (Bitter Almond Extract)	Acute Tox. 4 (oral); Eye Irrit. 2A	≥98.0%

SECTION 4: First Aid Measures

4.1 Description of First-Aid Measures

- If Inhaled: Move victim to fresh air. No special treatment required if no discomfort; consult a doctor if cough/chest tightness persists (rare in normal use).
- In Case of Skin Contact: Rinse skin with running water for 5 minutes. Remove contaminated clothing; wash clothing before reuse. No further treatment needed for normal contact.
- In Case of Eye Contact: Rinse eyes thoroughly with plenty of running water for 5-10 minutes (hold eyelids open). Remove contact lenses if present. Consult a doctor if redness/irritation persists for more than 24 hours.



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- If Swallowed: **IMMEDIATELY** call a poison center or doctor. DO NOT induce vomiting (risk of cyanide release). Rinse mouth with clean water; do not drink any liquids unless advised by a physician.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

- Acute Effects: Nausea/vomiting/dizziness (if swallowed in large quantity); mild eye redness/tearing (reversible within 24h); cyanide poisoning symptoms (severe cases only: difficulty breathing, confusion).
- Delayed Effects: No known delayed toxic effects at controlled exposure levels.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

- Immediate medical attention is required if the product is swallowed in any quantity.
- Specific antidote (cyanide antidote kit) may be required for severe oral ingestion; follow the poison center/physician's advice.

4.4 Notes to Physician

- Inform the physician that the ingested substance is amygdalin (bitter almond extract, CAS 29883-15-6).
- Be prepared for cyanide poisoning treatment in case of large-scale oral ingestion.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- Suitable Extinguishing Media: Water spray, foam, carbon dioxide (CO₂), dry powder.
- Unsuitable Extinguishing Media: No limitations of extinguishing agents.

5.2 Special Hazards Arising from the Substance or Mixture

- Non-combustible; no hazardous combustion gases/fumes generated under normal fire conditions; thermal decomposition at high temperature releases non-toxic carbon dioxide, water and small amounts of ammonia (no cyanide gas release).

5.3 Advice for Firefighters

- Wear standard fire-fighting gear (helmet, fire suit, gloves, respirator); avoid inhalation of combustion powder.
- Keep containers cool with water spray if exposed to fire; prevent packaging breakage.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

- Wear full PPE (nitrile gloves, safety goggles, face shield, dust mask, lab coat) for cleanup; ensure good ventilation in the spill area.
- Evacuate non-essential personnel from the spill area immediately; no eating/drinking/smoking in the area.
- Lock the spill area to prevent unauthorized access.

6.2 Environmental Precautions

- Prevent spilled powder from entering water bodies/soil (use sand/vermiculite to contain); the product is biodegradable but harmful to aquatic organisms in large quantity.

6.3 Methods and Materials for Containment and Cleaning Up

- Small Spill: Cover with dry sand/vermiculite; sweep up with a clean dry brush; transfer to a sealed HDPE container marked **HAZARDOUS** for disposal.
- Large Spill: Contain with plastic dikes/sand bags; transfer to sealed metal drums marked **HAZARDOUS** with a clean shovel; clean the spill area with a damp cloth (avoid dust dispersion); dispose of cleaning waste as hazardous waste.

6.4 Reference to Other Sections For disposal, see Section 13.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

- Operate in a closed, well-ventilated laboratory/workshop with low-dust handling equipment; use only by trained personnel.
- Avoid contact with strong acids, high-temperature environments ($\geq 70^{\circ}\text{C}$) and moisture to prevent active ingredient degradation.
- Hygiene Measures: Wash hands thoroughly with soap and water after handling; change contaminated clothing immediately; shower after handling if necessary.
- Strictly prohibit eating/drinking/smoking in the handling area; keep food/drinks away from the product.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

- Storage Conditions: Store in a **locked** cool, dry, dark well-ventilated warehouse. Keep container tightly sealed. Avoid direct sunlight and high temperatures (storage temperature $\leq 25^{\circ}\text{C}$); control warehouse humidity $\leq 60\%$.
- Incompatibilities: Strong mineral acids, high temperature, excessive moisture, digestive enzymes (e.g., amylase).
- Storage Class (TRGS 510): 13 (Hazardous Solids - Acute Oral Toxicity 4)
- Shelf Life: 24 months (unopened, under specified storage conditions).
- Storage Labeling: Clearly mark the container with **HAZARDOUS - DO NOT EAT** and product CAS number.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

Component	CAS-No.	Value	Control Parameters	Basis
Amygdalin (Bitter Almond Extract)	29883-15-6	0.5 mg/m ³	TWA (Respirable dust)	EU/China occupational exposure limits for toxic plant extracts

8.2 Exposure Controls

- Engineering Controls: Closed processing system with local exhaust ventilation (LEV) and high-efficiency dust collection; negative pressure workshop recommended for large-scale processing.
- Personal Protective Equipment (PPE): **MANDATORY** for all handling operations:
 - Eye/Face Protection: Safety goggles + face shield (100% coverage).

- Skin Protection: Nitrile rubber gloves (≥ 0.11 mm) + impermeable lab coat + protective gloves.
- Respiratory Protection: N95 respirator for dust handling; full-face respirator for large-scale processing.
- Other: Protective shoes + hair cover to prevent powder contact.
- Control of Environmental Exposure: No discharge of product dust/waste to the environment; collect all dust for hazardous waste disposal.

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties
a) Physical State: Crystalline fine powder
b) Color: White to off-white
c) Odor: Faint almond-like fragrances
d) Melting Point/Freezing Point: 220-225°C (decomposition)
e) Initial Boiling Point and Boiling Range: N/A
f) Flammability (Solid): Non-combustible
g) Upper/Lower Flammability or Explosive Limits: Not applicable
h) Flash Point: Not applicable
i) Autoignition Temperature: $> 500^{\circ}\text{C}$
j) Decomposition Temperature: $\geq 70^{\circ}\text{C}$ (active ingredient degradation)
k) pH Value (25°C): 5.0-6.5 (1% aq. solution)
l) Viscosity: Not applicable (solid)
m) Water Solubility: Soluble in water/ethanol; slightly soluble in ether
n) Partition Coefficient (n-octanol/water): $\text{Log } P \approx -0.5$ (amygdalin)
o) Vapor Pressure (25°C): < 0.0001 hPa
p) Density (25°C): 1.60-1.70 g/cm³ (bulk density)
q) Relative Vapor Density: Not applicable
r) Particle Characteristics: 95% passing 100 meshes
s) Explosive Properties: Not explosive
t) Oxidizing Properties: None

9.2 Other Safety Information
Amygdalin decomposes in acidic conditions/at high temperature to release small amounts of hydrogen cyanide gas (hazardous in closed spaces).

SECTION 10: Stability and Reactivity

10.1 Chemical Stability: Stable under recommended storage conditions ($\leq 25^{\circ}\text{C}$, dry, dark, sealed); no degradation if stored properly.
10.2 Possibility of Hazardous Reactions: No hazardous reactions under normal use and handling conditions; decomposes in strong acid/high temperature to release hydrogen cyanide gas (hazardous in closed spaces).
10.3 Conditions to Avoid: High temperature ($> 70^{\circ}\text{C}$), direct sunlight, high humidity ($> 60\%$), strong mineral acids, digestive enzymes, prolonged contact with water.
10.4 Incompatible Materials: Concentrated sulfuric acid/hydrochloric acid, amylase, pepsin, high-temperature catalysts.
10.5 Hazardous Decomposition Products: Hydrogen cyanide gas (in strong acid/high temperature only); carbon dioxide and water (normal thermal decomposition).

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

- Acute Toxicity:
 - Oral (Rat, LD₅₀): 1500 mg/kg (amygdalin)
 - Dermal (Rabbit, LD₅₀): > 10000 mg/kg
 - Inhalation (Rat, LC₅₀): > 10 mg/m³ (4-hour exposure)
- Skin Corrosion/Irritation: No skin irritation (Rabbit, 24-hour exposure)



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- Serious Eye Damage/Eye Irritation: Category 2A (mild irritation, reversible within 24h; Rabbit, 24-hour exposure)
 - Respiratory or Skin Sensitization: No sensitizing effects (Guinea pig test)
 - Germ Cell Mutagenicity: Negative (Ames test, chromosome aberration test)
 - Carcinogenicity: Not classified as carcinogenic by IARC/EPA/NTP; has anti-tumor activity in controlled pharmaceutical use.
 - Reproductive Toxicity: No reproductive harm at controlled pharmaceutical dosage (animal studies); harmful in large oral doses.
 - Specific Target Organ Toxicity (Single/Repeated Exposure): No target organ toxicity in controlled use; central nervous system toxicity (cyanide poisoning) in large oral doses.
 - Aspiration Hazard: Low (crystalline powder, no aspiration risk in normal use)
- 11.2 Additional Information Toxicity is only present in large oral doses (releases cyanide); safe for pharmaceutical/health care use in strictly controlled dosage.

SECTION 12: Ecological Information

12.1 Toxicity:

- Fish (Zebrafish, LC₅₀): 500 mg/L (96-hour exposure)
 - Daphnia (EC₅₀): 800 mg/L (48-hour exposure)
 - Algae (EC₅₀): 600 mg/L (72-hour exposure)
- 12.2 Persistence and Degradability: Fully biodegradable (BOD₅/COD > 0.6) in aquatic and soil environments; degrades completely within 20 days.
- 12.3 Bioaccumulative Potential: No bioaccumulation potential (Log P ≈ -0.5); rapid biodegradation in the environment.
- 12.4 Mobility in Soil: High mobility; dissolves in soil water and biodegrades rapidly; no leaching to groundwater.
- 12.5 Results of PBT and vPvB Assessment: Not classified as PBT/vPvB.
- 12.6 Endocrine Disrupting Properties: No data available; no known endocrine-disrupting effects.
- 12.7 Other Adverse Effects: Harmful to aquatic organisms in large quantity; no adverse effects at normal use/dosage levels.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- Product Waste: Classified as **hazardous organic waste** (acute oral toxicity 4); must be disposed of at an approved hazardous waste incineration facility (high-temperature incineration only); no composting/landfill disposal.
 - Packaging Waste: Rinse packaging with a small amount of ethanol (no water); collect rinse liquid as hazardous waste; dispose of packaging as hazardous waste at an approved facility; no recycling/reuse of packaging.
- 13.2 Disposal Regulations: Comply with local, national and international hazardous waste disposal regulations (e.g., China HW02); obtain hazardous waste disposal approval before disposal; keep disposal records for at least 5 years.

SECTION 14: Transport Information

14.1 UN Number: ADR/RID: 2811; IMDG: 2811; IATA-DGR: 2811
14.2 UN Proper Shipping Name: ADR/RID: Toxic solids, organic, n.o.s. (Amygdalin); IMDG: Toxic solids, organic, n.o.s.



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(Amygdalin); IATA-DGR: Toxic solids, organic, n.o.s. (Amygdalin) 14.3 Transport Hazard Class(es): ADR/RID: 6.1; IMDG: 6.1; IATA-DGR: 6.1 14.4 Packaging Group: ADR/RID: III; IMDG: III; IATA-DGR: III 14.5 Environmental Hazards: ADR/RID: No; IMDG Marine Pollutant: No; IATA-DGR: No 14.6 Special Precautions for User: Transport by **licensed hazardous goods carriers** only; transport at $\leq 25^{\circ}\text{C}$; use sealed, tamper-proof packaging (HDPE/metal drums); clearly mark the package with UN 2811, Class 6.1, and **TOXIC - DO NOT EAT**; avoid transport with food/drinks/medicines/strong acids. 14.7 Incompatible Materials: Avoid transport with strong acids, food/cosmetics, digestive enzymes, and high-temperature cargo. Further Information: Classified as Class 6.1 toxic solids under international transport regulations.

SECTION 15: Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

- National Regulations (China):
 - Hazardous Chemical Safety Management Regulation (Class 6.1 toxic chemical)
 - Pharmaceutical Administration Law (approved for pharmaceutical use only)
 - Hazardous Waste Pollution Control Law (hazardous waste disposal regulations)
- International Regulations:
 - GHS Classification (Rev. 9): Acute Tox. 4 (oral), Eye Irrit. 2A
 - REACH (EU): Registered; listed in Annex VI (hazardous substances)
 - TSCA (US): Listed on the TSCA Inventory; restricted for pharmaceutical use only
 - USP/EP: Complies with pharmaceutical grade amygdalin standards
 - IMDG/IATA/ADR: Class 6.1 toxic solids (UN 2811)

15.2 Other Regulations: Comply with local pharmaceutical GMP regulations; comply with occupational exposure limits for toxic plant extracts; obtain hazardous chemical storage/handling/transport licenses before use.

SECTION 16: Other Information

- Further Information: This MSDS is based on current scientific knowledge and complies with GB/T 16483, GB/T 17519, and GHS standards. It is intended for safe handling, storage, transport, and disposal by trained personnel only. The supplier is not liable for damage caused by improper use, unauthorized handling or non-compliance with safety precautions.
- Revision Date: 05 FEB 2026