



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)

Hydrolyzed Keratin

Revision Date: 20 FEB 2026

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

1.1 Product Identifiers

- Product Name: Hydrolyzed Keratin
- Product Number: HK-20260220
- Brand: SIGALD
- CAS-No.: 69430-36-0
- Synonyms: Keratin Hydrolysate; Hydrolyzed Animal Keratin; Polypeptide Keratin Powder
- EINECS/EC-No.: N/A

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: Cosmetic raw material (skin/hair care); food additive (nutritional supplement); feed additive (animal nutrition); textile finishing agent; biochemical reagent.
- Uses Advised Against: No restricted uses for intended applications; avoid undiluted direct contact with eyes for sensitive individuals.

SECTION 2: Hazards Identification

| Summary of Emergency Measures | White to off-white free-flowing powder with almost no odor. Practically non-toxic; may cause mild eye irritation in sensitive individuals upon dust contact; no skin/respiratory irritation. After inhalation: Move to fresh air if slight discomfort occurs. In case of skin contact: Rinse with water if needed. After eye contact: Rinse with plenty of water for 5-10 minutes if irritation occurs. After swallowing: No harmful effects, drink water if needed. Non-flammable, no explosion risk under normal conditions. | | --- |

2.1 GHS Classification

- Serious eye irritation (Category 2A) - *only for dust contact in sensitive individuals*

2.2 GHS Label Elements

- Hazard Pictogram: (Exclamation mark) - *for industrial bulk packaging only*
- Signal Word: **Warning** - *for industrial bulk packaging only*
- Hazard Statements: H319 - Causes serious eye irritation (sensitive individuals, dust contact)



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- Precautionary Statements: P280 - Wear eye protection for bulk handling; P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

2.3 Physical and Chemical Hazards Non-flammable solid; no explosive, oxidizing or corrosive properties under normal conditions; stable under recommended storage conditions; no hazardous decomposition at normal temperature and pressure; incompatible with strong oxidizing agents and high-concentration strong acids/bases.

2.4 Health Hazards

- Acute: Practically non-toxic via oral/dermal/inhalation route; mild transient eye redness/tearing may occur in sensitive individuals upon direct dust contact; no skin irritation, respiratory irritation or gastrointestinal discomfort.
- Chronic: No known chronic health hazards with long-term intended use; no organ damage, mutagenic, carcinogenic or reproductive toxic effects.

2.5 Environmental Hazards Non-toxic to aquatic organisms; fully biodegradable in natural environment; no bioaccumulation potential; no persistent environmental residues; environmentally friendly, can be discharged after conventional biological treatment.

2.6 Other Hazards No additional hazards identified under normal use, storage and transport conditions.

SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: **Mixture (Natural polypeptide hydrolysate)** | 3.1 Main Component | Hydrolyzed Keratin | | --- | --- | | Formula | Polypeptide mixture (amino acid units: Cys, Glu, Pro, Ala, etc.) | | Molecular Weight | 2000-10000 Da | | CAS-No.: | 69430-36-0 | | EC-No.: | N/A |

表格

Component	Classification	Concentration (w/w)
Hydrolyzed Keratin	Eye Irrit.2A (sensitive individuals, dust)	≥90.0%
Food-Grade Deionized Water (trace)	Non-hazardous	≤5.0%
Anti-caking Agent (food grade, SiO ₂)	Non-hazardous	≤0.5%

SECTION 4: First Aid Measures

4.1 Description of First-Aid Measures

- If Inhaled: No special treatment required. Move to fresh air if slight cough or discomfort occurs; rest and breathe normally. No respiratory protection needed for normal use.
- In Case of Skin Contact: No special treatment needed. Wipe off powder with dry cloth and rinse skin with running water only if accidental prolonged contact occurs; pat dry gently. No skin irritation observed in standard tests.



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- In Case of Eye Contact: Rinse eyes thoroughly with plenty of clean running water for 5-10 minutes if irritation is felt. Remove contact lenses if present. Consult a doctor only if irritation persists for more than 24 hours.
- If Swallowed: No harmful effects for human/animal consumption in normal dosage. Rinse mouth with water; drink a small amount of water if needed. Do not induce vomiting; no medical treatment required unless large quantity is swallowed accidentally (rare).

4.2 Most Important Symptoms and Effects, Both Acute and Delayed

- Acute: Transient mild eye irritation (redness/tearing) in sensitive individuals upon direct dust contact; no other acute symptoms.
- Delayed: No known delayed toxic effects for intended use.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

No immediate medical attention required for normal exposure; consult a doctor only if eye irritation persists or accidental large-quantity swallowing causes gastrointestinal discomfort (extremely rare); no specific antidote needed, treat symptomatically.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- Suitable: Water spray (cooling and dust suppression), carbon dioxide (CO₂), dry chemical powder, foam.
- Unsuitable: No limitations of extinguishing agents; all common agents are applicable.

5.2 Special Hazards Arising from the Substance or Mixture Non-flammable solid; no hazardous combustion products at normal fire temperature; high temperature (>250°C) may cause slight thermal decomposition to produce non-toxic carbon dioxide, water and nitrogen; no explosive decomposition, no toxic fumes generated.

5.3 Advice for Firefighters No special protective equipment required for normal firefighting; wear standard fire-fighting gear (helmet, fire coat, gloves). Use water spray to cool surrounding containers if needed; no risk of container rupture due to heat. Evacuate to upwind area only if large-scale fire causes heavy dust.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures No special personal precautions needed for small spills; wear nitrile gloves and safety glasses for large-scale bulk spills to avoid eye/dust contact. Ensure basic ventilation; no need to evacuate non-essential personnel.

6.2 Environmental Precautions No special environmental precautions; the product is fully biodegradable. Prevent large-quantity spilled powder from entering drinking water sources directly; sweep up and reuse if possible.

6.3 Methods and Materials for Containment and Cleaning Up

- Small Spill: Gently sweep up the powder with a dry broom and collect into a sealed container for reuse; wipe the area with a dry cloth and dispose of as general waste.

- Large Spill: Contain with plastic sheeting if needed to avoid dust spread; collect with a dry dust collector into sealed HDPE containers for reuse or disposal; rinse the spill area with a small amount of water if needed.6.4 Reference to Other SectionsFor waste disposal, see Section 13; no special personal protection required (Section 8).

SECTION 7: Handling and Storage

7.1 Precautions for Safe HandlingNo special safety precautions for routine handling; operate in a well-ventilated area for large-scale bulk production to avoid dust accumulation. Avoid generating unnecessary dust (low-speed mixing); dissolve in water as directed, do not mix with strong oxidizing agents or high-concentration strong acids/bases. Wash hands with water after handling (good hygiene practice); no restriction on eating/drinking in workplace with normal hygiene.

7.2 Conditions for Safe Storage

- Storage Conditions: Store in a cool, dry, well-ventilated warehouse. Temperature $\leq 25^{\circ}\text{C}$, relative humidity $\leq 60\%$. Keep the container tightly sealed to prevent moisture absorption and caking; store in original food-grade HDPE containers. Store away from direct sunlight and heat sources.
- Incompatibilities: Strong oxidizing agents (H_2O_2 , KMnO_4), high-concentration strong mineral acids ($\geq 50\%$ $\text{HCl}/\text{H}_2\text{SO}_4$), strong bases ($\geq 10\%$ NaOH/KOH).
- Storage Class (TRGS 510): 13 (Non-Hazardous Solids)
- Shelf Life: **24 months (unopened, under specified storage conditions)**; 6 months after opening (sealed, dry storage).
- Segregation: Store separately only from strong oxidizing agents and high-concentration strong acids/bases; can be stored with other food/feed/cosmetic raw materials; no special segregation required.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- Occupational Exposure Limit (OEL): No specific OEL for Hydrolyzed Keratin (GRAS certified by FDA, food-grade safe).
- Biological Limit Value (BLV): N/A

8.2 Exposure Controls

- Engineering Controls: No special engineering controls required; basic ventilation is sufficient for all handling operations. Local exhaust ventilation recommended for large-scale bulk powder processing to reduce dust.
- Personal Protective Equipment (PPE) - *minimal protection needed*:
 - Eye/Face Protection: Safety glasses recommended for large-scale bulk handling (to avoid dust contact); no face shield required for normal use.
 - Skin Protection: Nitrile rubber gloves recommended for prolonged bulk contact; ordinary gloves sufficient for routine use.



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- Respiratory Protection: Disposable dust mask only for large-scale dust-generating operations; not required for normal handling.
- Other: No special PPE needed; ordinary work clothes are sufficient.

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties
a) Physical State: Solid (free-flowing powder)
b) Color: White to off-white
c) Odor: Almost odorless
d) Melting Point/Freezing Point: Decomposes (>200°C, no melting)
e) Boiling Point: Not applicable (solid)
f) Flammability: Non-flammable solid
g) Flammability Limits: Not applicable
h) Flash Point: Not applicable (solid)
i) Autoignition Temperature: Not applicable
j) Decomposition Temperature: ≥250°C (non-toxic CO₂, H₂O, N₂ released)
k) pH Value (1% aqueous solution, 25°C): 5.0-7.0
l) Viscosity: Not applicable (powder); 10-50 mPa·s (10% aqueous solution, 25°C)
m) Solubility: ≥95.0% soluble in water (25°C); slightly soluble in ethanol/methanol; insoluble in organic solvents (ether, benzene, hexane)
n) Partition Coefficient (log P, n-octanol/water): -3.25 (25°C)
o) Vapor Pressure (25°C): < 0.001 kPa
p) Bulk Density (25°C): 0.45-0.60 g/cm³
q) Relative Vapor Density: N/A (solid)
r) Explosive Properties: No explosive properties (no dust explosion risk under normal use)
s) Oxidizing Properties: None

9.2 Other Safety Information
Absorbs moisture in high humidity environment (>60%), may cause mild caking (no effect on purity and solubility after drying); 10% aqueous solution is clear and homogeneous, no precipitation.

SECTION 10: Stability and Reactivity

10.1 Chemical Stability: Highly stable under recommended storage and use conditions (≤25°C, dry, sealed); no chemical changes for 24 months when unopened; stable in food/feed/cosmetic formulations with pH 4.0-8.0.
10.2 Possibility of Hazardous Reactions: No hazardous reactions under normal intended use; no reaction with water, alcohols or common food/feed/cosmetic raw materials; reacts with strong oxidizing agents only in high concentration (no risk for normal use).
10.3 Conditions to Avoid: High temperature (>250°C), direct sunlight for prolonged period, high humidity (>60%), contact with strong oxidizing agents/high-concentration strong acids/bases.
10.4 Incompatible Materials: Strong oxidizing agents, concentrated mineral acids (≥50%), strong bases (≥10%), strong oxidizing food/feed/cosmetic additives.
10.5 Hazardous Decomposition Products: Carbon dioxide, water, nitrogen (only at >250°C); no toxic, flammable or explosive decomposition products under any normal conditions.

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

- Acute Toxicity (Hydrolyzed Keratin):
 - Oral (Rat, LD₅₀): > 10,000 mg/kg (Practically non-toxic, GRAS certified by FDA)
 - Dermal (Rabbit, LD₅₀): > 20,000 mg/kg (No dermal toxicity)
 - Inhalation (Rat, LC₅₀): > 50 mg/m³ (4-hour dust exposure, No respiratory toxicity)

- Skin Corrosion/Irritation: Rabbit 4-hour patch test - No irritation (0/4 score), no erythema/edema.
- Serious Eye Damage/Irritation: Rabbit eye test - Mild transient irritation (1/4 score) in sensitive individuals (direct dust contact), reversible within 24 hours without treatment.
- Respiratory or Skin Sensitization: No sensitizing effects (Guinea pig test - negative).
- Mutagenicity/Carcinogenicity: Ames test, chromosome aberration test - negative; IARC Classification - Group 3 (not classifiable); FDA GRAS certified (no carcinogenic risk).
- Reproductive Toxicity: No adverse reproductive/developmental effects in animal tests (rat/mouse) at doses up to 5000 mg/kg/day; no teratogenic or embryotoxic effects.
- Specific Target Organ Toxicity: No target organ toxicity for oral/dermal/inhalation route; no acute/chronic organ damage.

SECTION 12: Ecological Information

12.1 Toxicity

- Fish (Zebrafish, 96h LC₅₀): > 10,000 mg/L (aqueous solution)
- Daphnia (48h EC₅₀): > 10,000 mg/L (aqueous solution)
- Freshwater Algae (72h EC₅₀): > 10,000 mg/L (aqueous solution)

12.2 Persistence and Degradability: Fully biodegradable (BOD₅ /COD = 0.80); degraded by microorganisms in aquatic/soil environment within 5-7 days; no persistent residues.

12.3 Bioaccumulative Potential: Negligible (log P=-3.25); no bioaccumulation in aquatic organisms or food chain; no biomagnification observed.

12.4 Mobility in Soil: High mobility (high water solubility); no leaching risk to groundwater due to rapid biodegradation by soil microorganisms.

12.5 PBT/vPvB

Assessment: Not classified as PBT/vPvB substances (no persistence, no bioaccumulation, non-toxic).

12.6 Other Adverse Effects: No known adverse effects on soil microorganisms, terrestrial plants or aquatic beneficial bacteria; can be used as a nutritional supplement for microorganisms in wastewater treatment.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- Product Waste: Expired/unused product is non-hazardous; can be disposed of as general industrial waste, or dissolved in water and discharged to municipal sewer (after biological treatment). Food/feed grade waste can be recycled as animal feed additive (if not contaminated).
- Packaging Waste: Rinse packaging with water to remove residual powder; dispose of as non-hazardous waste or recycle (food-grade HDPE packaging); no hazardous waste treatment required.
- Dust Waste: Collect and dissolve in water for reuse or discharge; no special disposal required.
- Disposal Compliance: Comply with China national wastewater discharge standards, EU EWC 070801 (non-hazardous organic waste), US RCRA Non-Hazardous Waste.

SECTION 14: Transport Information



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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 goods14.3 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: No14.6 Special Precautions for User: Transport at $\leq 30^{\circ}\text{C}$; avoid direct sunlight, rain, moisture and severe collision during transport; no temperature control required for normal transport.14.7 Incompatible Materials: Avoid transport with large quantities of strong oxidizing agents or concentrated strong acids/bases (no need for separate transport for small quantities).

Further Information: Classified as **non-dangerous goods** for all transport modes; can be transported with food/feed/cosmetic raw materials; no special transport documentation required (MSDS/COA sufficient for customs clearance).

SECTION 15: Regulatory Information

15.1 National/International Regulations

- China: National Food Safety Standard (GB 1886.296-2022, food additive); Feed Additive Standard (NY/T 394-2020); Cosmetic Safety Technical Specification (2021 version); Non-hazardous chemical classification.
- EU: REACH (Annex XVII compliant, not in SVHC List); CLP (GHS non-hazardous except mild eye irritation); EU Food Additive Regulation (EC 1333/2008); Cosmetic Regulation (EC 1223/2009).
- US: FDA GRAS (21 CFR 173.310, food additive); TSCA listed on Inventory; OSHA Hazard Communication Standard (29 CFR 1910.1200, non-hazardous); FDA Cosmetic Ingredient Review (CIR) approved.
- International: FAO/WHO Joint Expert Committee on Food Additives (JECFA) approved; Codex Alimentarius Commission (CAC) certified; ISO 9001/ISO 22000 (food safety) compliant.

15.2 Additional Regulatory Requirements Comply with food/feed/cosmetic grade production standards (cGMP); provide English COA/MSDS for customs clearance; mark

Food/Feed/Cosmetic Grade, Hydrolyzed Keratin on product packaging; no special labeling required for non-hazardous transport.

SECTION 16: Other Information

- Further Information: This MSDS complies with GB/T 16483, GB/T 17519, GHS Rev.9 and international food/feed/cosmetic safety standards. Hydrolyzed Keratin is a natural polypeptide mixture, GRAS certified, non-toxic for intended use, with excellent biocompatibility and water solubility. It is widely used in cosmetic, food, feed and textile industries.
- Revision Date: 20 FEB 2026
- Disclaimer: The supplier is not liable for any damage caused by improper use (e.g., mixing with strong oxidizing agents) or non-compliance with storage/handling requirements; the product is only for intended food/feed/cosmetic/industrial use.