

Technical Data Sheet (TDS)

- Hydrolyzed Collagen (30%)

Revision Date: 20 FEB 2026

1. Product Overview

- **Product Name:** Hydrolyzed Collagen (30%)
- **English Name:** 30% Aqueous Solution of Hydrolyzed Collagen
- **CAS Number:** 9064-67-9
- **Molecular Weight:** 2000 ~ 10000 Da (low molecular weight fish skin-derived)
- **Form:** Colorless to pale yellow clear aqueous liquid
- **Odor:** Faint characteristic polypeptide odor, no pungent smell

Hydrolyzed Collagen (30%) is a low molecular weight collagen polypeptide aqueous solution prepared by enzymatic hydrolysis of high-purity fish skin collagen, with a solid content of 30%. The product has excellent water solubility, high bioavailability and good compatibility, and can be quickly absorbed and utilized by the human body and skin. It is rich in glycine, proline and hydroxyproline, which are the core amino acids for synthesizing human collagen. Complies with food, cosmetic and health care product grade quality standards, low heavy metal content, no harmful microbial residues, and is widely used as a nutritional fortifier and functional additive in food, skin care products, health products and hair care products.

2. Technical Specifications (Complies with Food/Cosmetic/Industrial Grade Standard)

Item	Specification
Appearance	Colorless to pale yellow clear liquid, no sediment/impurity
Assay (Hydrolyzed Collagen)	29.0 ~ 31.0%
pH Value (25°C)	5.0 ~ 7.0
Average Molecular Weight	2000 ~ 10000 Da
Heavy Metals (Pb)	≤ 5 ppm
Heavy Metals (As)	≤ 1 ppm
Heavy Metals (Hg)	≤ 0.1 ppm
Total Bacterial Count	≤ 100 CFU/mL
E. coli/Staphylococcus aureus	Negative
Loss on Drying	≤ 0.5%
Water Solubility (25°C)	Fully soluble in water at any ratio, no precipitation
Viscosity (25°C)	40 ~ 80 mPa·s
Density (25°C)	1.08 ~ 1.12 g/cm ³
Storage Stability (25°C, 18 months)	No delamination, no precipitation, assay change ≤ 1.0%

3. Product Advantages

1. **High Bioavailability:** Low molecular weight polypeptide (2000-10000 Da), easy to be absorbed by human gastrointestinal tract and skin stratum corneum, higher utilization rate than native collagen.
2. **Excellent Solubility:** Fully soluble in water at any ratio, no agglomeration, easy to formulate and add, suitable for all water-based systems.
3. **Natural & Safe:** Derived from deep-sea fish skin, no animal-derived pathogens, complies with food and cosmetic safety standards, non-toxic, non-irritating, no allergic risk for normal use.
4. **Good Compatibility:** Miscible with most food/cosmetic additives (humectants, emollients, vitamins, plant extracts), no adverse reactions, easy to compound.
5. **Multi-functional:** Replenishes skin collagen, improves skin moisture retention and elasticity; supplements human nutritional amino acids, maintains joint health; improves hair toughness and reduces hair breakage.
6. **Stable Performance:** No delamination, no precipitation under normal storage conditions, stable at room temperature, no easy degradation, long shelf life.

4. Application Fields



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- **Food Industry:** Nutritional fortifier for beverages, dairy products, yoghurt, jelly, baked goods and health food; supplements collagen, improves food nutritional value and texture.
- **Cosmetic Industry:** Humectant, skin conditioner and anti-aging additive for facial masks, lotions, serums, creams and body lotions; improves skin moisture, reduces fine lines, enhances skin elasticity.
- **Hair Care Industry:** Functional additive for shampoos, conditioners and hair masks; repairs damaged hair scales, improves hair softness and toughness, reduces static electricity.
- **Health Care Products:** Raw material for oral collagen peptide solutions and drinks; supplements body collagen, maintains joint and bone health, delays skin aging.
- **Other Fields:** Nutritional additive for pet food, functional additive for medical dressings (hydrogel), raw material for biological coatings.

5. Usage Methods

Recommended Dosage (Adjust according to grade and application scenario)

- **Food Industry:** 0.5~5.0% of the total formulation (beverages/dairy products); 2~10% (health food drinks).
- **Cosmetic Industry:** 1~8% of the total formulation (serums/lotions); 0.5~3% (facial masks/creams); 0.5~2% (hair care products).
- **Health Care Products:** 5~20% of the total formulation (oral solutions/drinks).
- **Pet Food:** 0.2~1.0% of the total feed weight.

Key Application Tips

- **Direct Addition:** Can be directly added to water-based systems, stir evenly at room temperature (20~30°C) to ensure full mixing, no need for heating.
- **pH Adjustment:** The product is weakly acidic to neutral, no need to adjust pH for most systems; if necessary, adjust with weak acid/weak base (avoid strong acid/strong base) to pH 5.0~8.0.
- **Avoid High Temperature:** Avoid heating above 60°C for a long time to prevent polypeptide degradation and reduce activity.
- **Compatibility Note:** Good compatibility with hyaluronic acid, glycerol, vitamin C, plant extracts and other common additives; avoid mixing with strong oxidants.

6. Packaging & Storage

Packaging Specifications (Sealed, Food/Cosmetic Grade HDPE)

- 500 mL/1 L HDPE plastic bottle (laboratory/R&D/small-batch use)
- 25 L food-grade HDPE plastic drum (cosmetic/food small-scale use)
- 200 L food-grade HDPE plastic drum (health care/industrial bulk use)
- 1000 L IBC ton barrel (large-scale project use)
- Custom packaging available according to customer requirements.

Storage Conditions

1. Store in a **cool, dry, well-ventilated warehouse** at 5 ~ 30°C; avoid direct sunlight, high temperature (>35°C) and freezing (<0°C).
2. Keep the container tightly sealed to prevent moisture evaporation, contamination and polypeptide oxidation.
3. Store separately from strong acids, strong bases, oxidizing agents and odorous substances; isolation distance ≥1m.
4. **Shelf Life:** 18 months (unopened, under the specified storage conditions); use within 6 months after opening, and seal the remaining product tightly after each use.

7. Safety & Protection

1. The product is non-toxic, non-irritating, safe for human and animal contact; direct contact with skin has a moisturizing and conditioning effect.
2. **Recommended PPE:** Nitrile rubber gloves and safety glasses for large-scale handling to avoid liquid splashing into eyes; no respiratory protection needed under normal conditions.
3. **Accident Treatment:**
 - Skin Contact: No special treatment needed; rinse with water if necessary, the product is mild and non-irritating.