



# PRODUCT DATA SHEET

Document No.: PDS-HGCP-1  
Effective Date: 05, Jan 2025

## Hydrolyzed Gelatin ( Collagen Peptides)

INS 428 | E 441 | CAS 68410-45-7

### CAG-Hydrolyzed Gelatin

#### 1. PRODUCT DESCRIPTION

CAG-Hydrolyzed Gelatin (Collagen Peptides) is a high-purity, food-grade protein obtained by controlled enzymatic hydrolysis of natural collagen from bovine, porcine, or fish sources. During hydrolysis, the native gelatin structure is broken down into low molecular weight peptides (typically 2,000–6,000 Daltons), resulting in a product that is fully soluble in cold water and does not form gels.

It appears as a white to light yellow, free-flowing powder with neutral odor and taste. The product forms clear, stable solutions even at high concentrations and remains fluid without gelation.

**Source Options:** Bovine / Porcine / Fish

**Molecular Weight:** 2,000–6,000 Da (typical)

**Gel Formation:** None (non-gelling protein)

#### 2. KEY FEATURES & BENEFITS

Cold Water Soluble – Dissolves instantly at 10–25°C

No Gelation – Remains liquid at all concentrations

High Bioavailability – Low molecular weight peptides

Clear Solutions – Suitable for transparent beverages

Neutral Taste – Compatible with flavor systems

High Protein Content – ≥ 90% (dry basis)

Stable in Acidic Systems – Suitable for low-pH drinks

#### 3. TYPICAL APPLICATIONS

Application	Usage Level	Functional Benefit
Protein Beverages	2.0–10.0%	Clear protein fortification
Sports Nutrition	5.0–15.0%	Collagen peptide enrichment
Beauty & Oral Liquids	2.0–8.0%	Skin and structural protein support
Functional Bars & Foods	3.0–10.0%	Protein enhancement without gelation
Dairy & Yogurt	1.0–4.0%	Increases protein content
Meat Injection Systems	1.0–3.0%	Water binding & protein boost
Beverage Clarification	0.1–0.5%	Tannin & haze reduction

<b>Application</b>	<b>Usage Level</b>	<b>Functional Benefit</b>
Cosmetic Formulations	1.0–5.0%	Moisture retention & film formation

#### 4. PRODUCT SPECIFICATIONS

<b>Parameter</b>	<b>Specification</b>
Appearance	White to light yellow powder
Odor & Taste	Neutral, characteristic
Protein Content	≥ 90% (dry basis)
Molecular Weight	2,000–6,000 Da (typical)
Solubility	Completely soluble in cold water
Loss on Drying	≤ 8%
pH (1% solution)	5.0–7.0
Total Ash	≤ 2.0%
Sulfur Dioxide	≤ 50 mg/kg
Heavy Metals (as Pb)	≤ 20 mg/kg
Transparency (10%)	Clear to slightly hazy
Microbiology	Complies with food safety standards

#### 5. SOURCE OPTIONS

<b>Source Type</b>	<b>Molecular Weight</b>	<b>Positioning</b>
Bovine Hydrolyzed	2,000–5,000 Da	General nutrition & sports
Porcine Hydrolyzed	2,000–5,000 Da	General functional food
Fish Hydrolyzed	2,000–3,000 Da	Marine collagen & beauty

#### 6. PACKAGING

Inner Packaging: Food-grade PE liner

Outer Packaging: Multilayer kraft paper bag / fiber drum / carton

Net Weight: 25 kg / bag (standard) / 20 kg / carton available

Custom Packaging: Available upon request

#### 7. STORAGE CONDITIONS & SHELF LIFE

Storage Conditions: Store in a cool, dry place away from moisture and direct sunlight

Temperature: < 25°C recommended, Relative Humidity: < 60%

Shelf Life: 24 months from date of manufacture under recommended conditions

Transport: Protect from moisture and contamination

For specific molecular weight customization, source selection, or formulation support, please contact CAG for a formal Product Data Sheet (PDS).