



Product Name: α -Ketoglutaric Acid (2-Oxoglutaric Acid)

CAS Number: 328-50-7

Molecular Formula: $C_5H_6O_5$

Molecular Weight: 146.10

Synonyms: Alpha-Ketoglutaric Acid, α -KGA, 2-Oxopentanedioic acid, 2-Oxoglutaric Acid

1. Product Overview

α -Ketoglutaric acid (α -KGA) is an important intermediate in the tricarboxylic acid cycle of organisms. It is a white crystalline powder with stable chemical properties under proper storage conditions. It is widely used in dietary supplements, sports nutrition, food fortification, feed industry and biochemical raw material synthesis. This product is manufactured and inspected in accordance with GB29938-2020 and internal enterprise specifications

2. Specification & Test Result

Item	Specification
Appearance	White or off-white crystalline powder
Assay (as dry basis)	$\geq 99.0\%$
Transmittance	$\geq 95.0\%$
Moisture	$\leq 1.0\%$
Chloride	$\leq 0.02\%$

5. Applications

- Dietary Supplement & Sports Nutrition:** It participates in human energy metabolism, supports muscle recovery, helps reduce fatigue, and is a common raw material for sports supplements and bodybuilding nutrition products.
- Food Industry:** Used as food fortifier, acidity regulator, applied in functional food and special dietary food.
- Feed Industry:** Added to animal feed to improve nutrient utilization, support animal growth and anti-stress ability.
- Biochemical Field:** Key biochemical intermediate, used for cell culture, enzyme preparation and laboratory research.

5. **Pharmaceutical Intermediate:** Raw material for the synthesis of some amino acid derivatives and health products.

6. Storage Requirements

- Store in a cool, dry, clean and well-ventilated warehouse.
- Keep tightly sealed. Protect from moisture, direct sunlight, high temperature and heat sources.
- Do not store together with strong oxidants, strong alkalis, toxic and odorous substances.
- Recommended storage temperature: 10 ~ 25 °C, relative humidity ≤60%.
- After opening the package, use it as soon as possible; reseal tightly if there is remaining product to prevent moisture absorption and discoloration.

7. Handling & Personal Protection

- **Respiratory Protection:** Avoid inhaling dust. Wear a dust respirator when handling in dusty conditions.
- **Eye Protection:** Wear safety goggles to prevent powder from splashing into eyes.
- **Skin Protection:** Wear clean protective gloves. Wash hands thoroughly after operation.
- **Operation Note:** Prevent dust dispersion. No eating, drinking or smoking in the working area.

8. Transportation

- Transport as ordinary food raw materials. Keep away from rain, moisture and strong sunlight during transit.
- Avoid mixing with hazardous chemicals, pollutants and smelly goods.
- Handle gently to prevent packaging drums from breaking and powder leakage.

9. Disposal

- **Waste material:** Collect spilled powder and put into sealed containers for recovery or harmless disposal.
- Do not discharge directly into sewer, river or soil. Comply with local environmental regulations.