



Wellgo Chemical Technology Co., LTD  
 GLUCONO DELTA-LACTONE  
 (GDL CAS NO.:90-80-2)

**PRODUCT NAME** WELLGO GDL

**PRODUCT TYPE** Food Grade

**CAS No.:** 90-80-2

**E No.:** E575

### COMPOSITION AND DESCRIPTION

<b>Component</b>	<b>Percentage</b>	<b>Taste</b>	Neutral, Almost odorless
Assay (%)	99.0~100.5	<b>Appearance</b>	White crystalline powder

### CHEMICAL/PHYSICAL SPECIFICATIONS

Reducing substances	≤0.5%
Chloride	≤0.02%
Sulphate	≤0.03%

### HEAVY METAL SPECIFICATIONS

Arsenic (as As)	≤ 3	mg/kg
Heavy metal (as Pb)	≤ 20	mg/kg
Lead	≤ 10	mg/kg

Glucono delta-lactone (GDL), also known as gluconolactone, is a food additive with the E number E575 used as a sequestrant, an acidifier, or a curing, pickling, or leavening agent. It is a lactone of d-gluconic acid. Pure GDL is a white odorless crystalline powder.

### APPLICATION AREAS:

D-gluconolactone, Delta-gluconolactone, Glucono delta lactone (GDL) USP Grade, FCCIV or Glucono-1,5-Lactone is the raw material for flavoring agent, tofu coagulant, PH reducing agent, leavening agent, and preservative agent.

#### 1. Tofu coagulant.

GDL is white and tender, no bitter taste, no protein loss.

#### 2. Gelling agent for dairy products

Can also be in the production of yogurt or cheese.

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### 3. Quality improver

Able to be applied in pork luncheon meat and canned pork, to improve the effect of colorant.

### 4. Acidifying agent

Could be applied in fruit syrup or jelly with flavors as vanilla extract, chocolate, banana, etc.

### 5. Chelating agent

Widely used in dairy products as and even in beer industry, etc.

### 6. As a moisturizer, pH adjuster, and sequestrant or chelating agent in cosmetic industry

GDL is generally considered suitable for all skin types, including sensitive skin, and is non-irritating and antioxidant. The multiple hydroxyl groups on GDL molecule attract water, resulting in a moisturizing effect when added to skin care formulations. Given their ability to condition and hydrate skin, GDL-containing formulations may even smooth skin texture and reduce the appearance of fine lines and wrinkles. ensures a progressive and continuous decrease of pH to equilibrium. So it is utilized as a slow release acidifier in formulations.

### 7. As preservative in food

Widely used acidulant in meat products, especially for dry cured sausages. This product is utilized when a slow release of acid is required. In the presence of water it reverts to gluconic acid. The lowering of the pH inhibits growth of bacteria and accelerates the drying.

When comes to the usage, GDL is often combined with Sodium Benzoate, which is a traditional preservative, where it can potentiate the preservative and enhance the microbial tolerance of the finished product. GDL can also be combined with other antimicrobial or antifungal ingredients whose activity is dependent on a low pH. It will also work together with Leucidal Liquid, Leucidal Liquid SF, Potassium Sorbate, Sodium Benzoate, Optiphen, Optiphen Plus, and Optiphen ND, etc.

### **USAGE:**

added to the ingredients in the food. Recommended dosage: 0.1~5g/kg.

### **PACKAGING, STORAGE AND TRANSPORTATION**

#### Storage

GML shall be stored at 25 /77 °C max and 80% relative humidity max, away from sunlight and odorous products. It has a shelf life of 36 months in original package.

#### Packaging

25kg per multilayer bag with PE inner bag

About 22mt net per 20' FCL without pallet

About 20mt net per 20' FCL with palle

### **LEGAL STATU**

GDL meets the specifications laid down by the FAO/WHO, the EU, and the Food Chemicals Codex. It is covered by EU reference No. E575 and by US FDA No. 21 CFR 184.1318.

### **ADDITIONAL SAFETY INFORMATION**

A Material Safety Data Sheet is available on request.

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