

# Shandong Qingyun Changxin Chemical Science-Tech Co., Ltd

## SAFETY DATA SHEET

### $\gamma$ -Butyrolactone

#### SECTION1 PRODUCT AND COMPANY IDENTIFICATION

Product name:  $\gamma$ -Butyrolactone  
Company: Shandong Qingyun Changxin Chemical Science-Tech Co., Ltd  
Address: No. 1689, Donghuan Road, Qingyun County, Shandong Province, 253700, P. R. China  
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SDS Number: 2616040028  
SDS Date: 2016-05-03

#### SECTION2 HAZARDS IDENTIFICATION

##### Hazards Identification:

Classification according to GHS:

Flammable liquid (Category 4)

Acute toxicity, Oral (Category 4)

Serious eye damage/eye irritation (Category 1)

Specific target organ toxicity - Single exposure (Category 2) (Central nervous system)

Specific target organ toxicity - Single exposure (Category 3)

The hazards not mentioned are not applicable or no data available.

##### Emergency Overview:

Combustible Liquids. Harmful if swallowed. Causes serious eye damage. May cause damage to organs: Central nervous system. May cause drowsiness or dizziness.

#### SECTION3 INFORMATION ON INGREDIENTS

Product name:  $\gamma$ -Butyrolactone

Ingredient	Concentration	CAS No.	EC No.
$\gamma$ -Butyrolactone	99.66%	96-48-0	202-509-5

#### SECTION4 FIRST-AID MEASURES

##### Skin Exposure:

In case of skin contact, wash skin with soap and copious amounts of water. Remove contaminated clothing and shoes. If irritation persists, Call a physician.

**Eye Exposure:**

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Inhalation Exposure:**

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If feel unwell, get medical aid immediately.

**Oral Exposure:**

If victim is conscious, wash mouth out with water. Get medical aid immediately.

**SECTION5 FIRE FIGHTING MEASURES****Extinguishing Media:**

Suitable: Water spray, Dry chemical, Carbon dioxide or appropriate foam.

**Firefighting:**

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Fire-extinguishing work is done from the windward. Uninvolved persons should evacuate to a safe place. Keep containers cool by spraying with water.

**SECTION6 ACCIDENTAL RELEASE MEASURES****Procedure of Personal Precaution:**

Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Avoid breathing vapors, mist or gas. Entry to noninvolved personnel should be controlled around the leakage area by roping off, etc.

**Methods for Cleaning up:**

Mix with inert material (e. g. dry sand, vermiculite) and transfer to a dry, clean, lidded container for disposal. Avoid inhalation. Ventilate area and wash spill site after material pickup is complete.

**Environmental precautions:**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**SECTION7 HANDLING AND STORAGE****Handling:**

Wear appropriate protective clothing and chemical safety gloves. Avoid contact with eyes, skin and clothing. Avoid inhalation. Prevent generation of vapour or mist. Keep container tightly closed. Do not expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Electrostatic charges may be generated during pumping. Ensure electrical continuity by bonding all equipment. Keep away from heat, sparks and flame. Incompatibilities: Strong acids, Strong bases, Strong oxidizing agents, Strong reducing agents, Zinc, Plastics, combustible materials. Wash hands and face thoroughly after handling. No smoking at working site.

**Storage:**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks, and flame. Keep away from sources of ignition. Incompatibilities: Strong acids, Strong bases, Strong oxidizing agents, Strong reducing agents, Zinc, Plastics, combustible materials. Recommended storage temperature: 2-8°C. Hygroscopic.

**SECTION8 EXPOSURE CONTROL/PPE****Engineering Controls:**

Safety shower and eye bath. Mechanical exhaust required.

**Personal Protective Equipment:**

Respiratory: Government approved respirator.  
 Eye: Chemical safety goggles.  
 Clothing: Wear anti-electrostatic clothing.  
 Hand: Compatible chemical-resistant gloves.

**Other Protect:**

No smoking, drinking and eating at working site. Wash thoroughly after handling. Wash contaminated clothing before reuse. Discard contaminated shoes.

**SECTION9 PHYSICAL/CHEMICAL PROPERTIES**

**Appearance:** Colorless transparent liquid  
**Odor:** Weak odor  
**Initial Boiling Point/°C:** >150°C  
**Flash Point (Closed Cup)/°C:** 92.0°C  
**pH Value:** 6-7  
**Solubility:** Miscible in water  
**Density/Relative Density:** 1.130×10<sup>3</sup> kg/m<sup>3</sup> (20.0°C)  
**Viscosity:** 1.491 mm<sup>2</sup>/s (20.0°C, kinematic viscosity)

**SECTION10 STABILITY AND REACTIVITY****Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Heat, flames and sparks. Extremes of temperature and direct sunlight.

**Materials to Avoid:**

Strong acids, Strong bases, Strong oxidizing agents, Strong reducing agents, Zinc, Plastics.

**Hazardous Polymerization:**

Will not occur.

**Hazardous Decomposition Products:**

Carbon oxides.

**SECTION11 TOXICOLOGICAL INFORMATION****Acute toxicity:**

Rat Oral LD<sub>50</sub> 1540mg/kg  
 Rat Inhalation LC<sub>50</sub> >5100mg/m<sup>3</sup>/4H

**Skin corrosion/irritation:**

No data available.

**Serious eye damage/irritation:**

Causes serious eye damage.

**Specific target organ toxicity - single exposure:**

May cause damage to organs: Central nervous system.  
 May cause drowsiness or dizziness.

**SECTION12 ECOLOGICAL INFORMATION****Toxicity:**

Toxicity to fish  $LC_{50}$  - *Leuciscus idus* (Golden orfe) - > 220 mg/l - 96 h  
 Toxicity to daphnia and other aquatic invertebrates  $EC_{50}$  - *Daphnia magna* (Water flea) - > 500 mg/l - 48h  
 (Directive 67/548/EEC, Annex V, C.2.)  
 Toxicity to algae  $EC_{50}$  - *Desmodesmus subspicatus* (green algae) - 360 mg/l - 72 h

**Persistence and degradability:**

Biodegradability Biotic/Aerobic - Exposure time 13 d  
 Result: 90 % - Readily biodegradable  
 (Directive 67/548/EEC Annex V, C.4.F.)  
 Biochemical Oxygen Demand (BOD) 1.160 mg/g

**Bioaccumulative potential:**

No data available.

**Mobility in soil:**

No data available.

**SECTION13 DISPOSAL CONSIDERATION****Appropriate Method of Disposal of Substance:**

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with and afterburner and scrubber. Observe all federal, state, and local environmental regulations.

**SECTION14 TRANSPORT INFORMATION**

**DOT:** Proper Shipping Name: Combustible liquid, n. o. s.  
 Number: NA1993  
 Class: COMBUSTIBLE LIQUID  
 Packing Group: Packing Group III  
 PIH: Not PIH

**RID/ADR:** Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

**IATA:** Non-Hazardous for Air Transport: Non-hazardous for air transport.

**IMO:** Non-Hazardous for Sea Transport: Non-hazardous for sea transport.

**SECTION15 REGULATORY INFORMATION****Regulation (EC) No. 1272/2008 and its amendments:**

Acute toxicity, Oral (Category 4)  
 Serious eye damage/eye irritation (Category 1)  
 Specific target organ toxicity - Single exposure (Category 2) (Central nervous system)  
 Specific target organ toxicity - Single exposure (Category 3)

**SECTION16 OTHER INFORMATION****Date:**

2016-05-03

**Department:**

Shanghai Research Institute of Chemical Industry Testing Centre  
 Tel (Fax): 8621-52815377/52800971/52807275/52811034/52569800

**Revision:**

0

**Other Information:**

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