

## SAFETY DATA SHEET

According to GB/T 16483 and GB/T 17519

### 1,3-Propanediol

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

##### 1.1 Product identifiers

Product name : 1,3-Propanediol

Product Number : P50404  
Brand : Aldrich  
CAS-No. : 504-63-2

##### 1.2 Details of the supplier of the safety data sheet

Company : XI'AN AOGU BIOTECH CO.,LTD  
Room 606,Block B3,Jinye Times,No.32,East Section of Jinye Road,Yanta  
District,Xi'an Shaanxi 710065 China

Web : [www.AOGUBIO.com](http://www.AOGUBIO.com)

Telephone : 0086-18091843361  
Fax : 0086-29-89121514

##### 1.3 Emergency telephone

Emergency Phone # : 0086-18091843361

##### 1.4 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : For R&D use only. Not for pharmaceutical, household or other uses.

#### SECTION 2: Hazards identification

##### Summary of emergency

clear, liquid, viscous colorless Causes mild skin irritation. After inhalation: fresh air. In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. After eye contact: rinse out with plenty of water., Remove contact lenses. After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell. Combustible. Development of hazardous combustion gases or vapours possible in the event of fire. Violent reactions possible with: Oxidizing agents, Reducing agents, acid halides, Acid anhydrides

## 2.1 GHS Classification

Skin corrosion/irritation (Category 3), H316

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 GHS Label elements, including precautionary statements

Pictogram none

Signal Word Warning

Hazard statement(s)

H316 Causes mild skin irritation.

Precautionary statement(s)

Response

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

### Reduced Labeling (<= 125 ml)

Pictogram none

Signal Word Warning

Hazard statement(s)

H316 Causes mild skin irritation.

Precautionary statement(s) none

## 2.3 Physical and chemical hazards

Referring to current information, no physical or chemical hazard.

## 2.4 Health hazards

H316 Causes mild skin irritation.

## 2.5 Environmental hazards

Referring to current information, no environmental hazard.

## 2.6 Other hazards - none

## SECTION 3: Composition/information on ingredients

Substance / Mixture : Substance

### 3.1 Substances

Synonyms : Trimethylene glycol  
1,3-Dihydroxypropane

Formula : C<sub>3</sub>H<sub>8</sub>O<sub>2</sub>

Molecular weight : 76.09 g/mol

CAS-No. : 504-63-2

EC-No. : 207-997-3

### Hazardous ingredients

Component	Classification	Concentration
-----------	----------------	---------------

<b>1,3-propanediol</b>		
	Skin corrosion/irritation Category 3; H316	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

---

## **SECTION 4: First aid measures**

### **4.1 Description of first-aid measures**

#### **If inhaled**

After inhalation: fresh air.

#### **In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

#### **In case of eye contact**

After eye contact: rinse out with plenty of water. Remove contact lenses.

#### **If swallowed**

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

### **4.4 Notes to physician**

No data available

---

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

### **5.3 Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.  
For personal protection see section 8.

### **6.2 Environmental precautions**

Do not let product enter drains.

### **6.3 Methods and materials for containment and cleaning up**

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb® ). Dispose of properly. Clean up affected area.

### **6.4 Reference to other sections**

For disposal see section 13.

---

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

For precautions see section 2.2.

### **7.2 Conditions for safe storage, including any incompatibilities**

#### **Storage conditions**

Tightly closed.

#### **Storage class**

Storage class (TRGS 510): 10: Combustible liquids

---

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Ingredients with workplace control parameters**

Contains no substances with occupational exposure limit values.

### **8.2 Exposure controls**

#### **Appropriate engineering controls**

Change contaminated clothing. Wash hands after working with substance.

#### **Personal protective equipment**

##### **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

##### **Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested:KCL 741 Dermatril® L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: KCL 741 Dermatril® L

### **Respiratory protection**

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

### **Control of environmental exposure**

Do not let product enter drains.

---

## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties**

- |                                                 |                                                                                                       |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| a) Physical state                               | clear, liquid, viscous                                                                                |
| b) Color                                        | colorless                                                                                             |
| c) Odor                                         | No data available                                                                                     |
| d) Melting point/freezing point                 | Melting point/range: -27 °C - lit.                                                                    |
| e) Initial boiling point and boiling range      | 214 °C at 1,013 hPa - lit.                                                                            |
| f) Flammability (solid, gas)                    | No data available                                                                                     |
| g) Upper/lower flammability or explosive limits | No data available                                                                                     |
| h) Flash point                                  | > 99 °C                                                                                               |
| i) Autoignition temperature                     | 342 °C<br>at 1,021.24 hPa                                                                             |
| j) Decomposition temperature                    | No data available                                                                                     |
| k) pH                                           | No data available                                                                                     |
| l) Viscosity                                    | Viscosity, kinematic: 44.923 mm <sup>2</sup> /s at 24 °C<br><br>Viscosity, dynamic: No data available |
| m) Water solubility                             | 1,000 g/l at 21 °C - OECD Test Guideline 105- completely soluble                                      |
| n) Partition coefficient: n-octanol/water       | No data available                                                                                     |
| o) Vapor pressure                               | < 0.1 hPa at 20 °C                                                                                    |

- p) Density 1.053 g/mL at 25 °C - lit.  
Relative density 1.05 at 25 °C
- q) Relative vapor density
- r) Particle characteristics No data available
- s) Explosive properties No data available
- t) Oxidizing properties none

## 9.2 Other safety information

Surface tension 74.16 mN/m at 21 °C

---

## SECTION 10: Stability and reactivity

### 10.1 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.2 Possibility of hazardous reactions

Violent reactions possible with:

Oxidizing agents  
Reducing agents  
acid halides  
Acid anhydrides

### 10.3 Conditions to avoid

no information available

### 10.4 Incompatible materials

No data available

### 10.5 Hazardous decomposition products

In the event of fire: see section 5

---

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - male and female - 10,500 mg/kg

Inhalation: No data available

LD50 Dermal - Rat - male and female - > 4,200 mg/kg

#### Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h  
(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

**Respiratory or skin sensitization**

Draize Test - Guinea pig

Result: Does not cause skin sensitization.

**Germ cell mutagenicity**

No data available

Test Type: Hamster

Test system: Lungs

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Species: Mouse

Application Route: Oral

Result: negative

**Carcinogenicity**

No data available

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**11.2 Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect level) - 1,000 mg/kg

RTECS: TY2010000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

---

**SECTION 12: Ecological information**

**12.1 Toxicity**

Toxicity to fish	static test LC50 - Pimephales promelas (fathead minnow) - > 9,720 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 7,417 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	Growth inhibition EC50 - Desmodesmus subspicatus (green algae) - 1,600 mg/l - 72 h (OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - Pseudomonas putida - 6,000 mg/l - 16 h  
Remarks: (ECHA)

#### 12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 28 d  
Result: 71 % - Readily biodegradable.  
(OECD Test Guideline 301B)

#### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Endocrine disrupting properties

No data available

#### 12.7 Other adverse effects

No data available

---

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

##### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

---

### SECTION 14: Transport information

#### 14.1 UN number

ADR/RID: -

IMDG: -

IATA-DGR: -

#### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA-DGR: Not dangerous goods

#### 14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA-DGR: -

#### 14.4 Packaging group

ADR/RID: -

IMDG: -

IATA-DGR: -

#### 14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA-DGR: no

#### 14.6 Special precautions for user

#### 14.7 Incompatible materials

#### Further information

Not classified as dangerous in the meaning of transport regulations.



---

**SECTION 15: Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulatory information****Other regulations**

Please pay attention on the waste treatment should also comply with local regulations requirement.

---

**SECTION 16: Other information****Full text of H-Statements referred to under sections 2 and 3.**

H316 Causes mild skin irritation.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. XI'AN AOGU BIOTECH CO.,LTD Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

Copyright 2020 XI'AN AOGU BIOTECH CO.,LTD License granted to make unlimited paper copies for internal use only.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered.