

# SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.0  
Creation Date: July 15, 2019  
Revision Date: July 15, 2019

## SECTION 1: Identification

### 1.1 GHS Product identifier

**Product name** 2,4-xlenol

### 1.2 Other means of identification

**Product number** -  
**Other names** 1,2,4-Xylenol; gallex; as-m-xlenol

### 1.3 Recommended use of the chemical and restrictions on use

**Identified uses** Industrial and scientific research use.  
**Uses advised against** no data available

### 1.4 Supplier's details

**Company** Shanghai Baishun Biotechnology Co., Ltd  
**Address** No. 26, Lane 918, Lianye Road, Zhelin Town, Fengxian District, Shanghai, 201400, China  
**Telephone** +86-21-37581181

### 1.5 Emergency phone number

**Emergency phone number** +86-21-37581181  
**Service hours** Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Acute toxicity - Category 3, Oral  
Acute toxicity - Category 3, Dermal  
Skin corrosion, Sub-category 1B  
Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 2

### 2.2 GHS label elements, including precautionary statements

**Pictogram(s)**



**Signal word**

**Hazard statement(s)**

Danger  
H301 Toxic if swallowed  
H311 Toxic in contact with skin  
H314 Causes severe skin burns and eye damage

	H411 Toxic to aquatic life with long lasting effects
<b>Precautionary statement(s)</b>	
<b>Prevention</b>	<p>P264 Wash ... thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...</p> <p>P260 Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>P273 Avoid release to the environment.</p>
<b>Response</b>	<p>P301+P316 IF SWALLOWED: Get emergency medical help immediately.</p> <p>P321 Specific treatment (see ... on this label).</p> <p>P330 Rinse mouth.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water/...</p> <p>P316 Get emergency medical help immediately.</p> <p>P361+P364 Take off immediately all contaminated clothing and wash it before reuse.</p> <p>P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P391 Collect spillage.</p>
<b>Storage</b>	P405 Store locked up.
<b>Disposal</b>	P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### 2.3 Other hazards which do not result in classification

no data available

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
2,4-xylenol	2,4-xylenol	105-67-9	203-321-6	100%

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

#### If inhaled

Fresh air, rest. Half-upright position. Artificial respiration may be needed. Refer for medical attention.

#### Following skin contact

Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention .

#### Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

#### Following ingestion

Rinse mouth. Give one or two glasses of water to drink. Do NOT induce vomiting. Refer for medical attention .

### 4.2 Most important symptoms/effects, acute and delayed

SYMPTOMS: Symptoms of exposure to this compound may include severe irritation of the skin and eyes, dizziness, stomach pain, exhaustion and damage to the liver and kidneys.

Other symptoms include headache, nausea and vomiting. It may cause severe burns of the eyes and skin, irritation of the respiratory tract and coma. It may also cause corrosion of tissue of the mucous membranes and upper respiratory tract, eyes and skin. Inhalation may result in burning sensation, coughing, wheezing, laryngitis and shortness of breath. Inhalation may be fatal as a result of spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure to this class of compounds include profuse sweating, skin sensitization, painless blanching or erythema of the skin, intense thirst, diarrhea, cyanosis from methemoglobinemia, hyperactivity, stupor, fall in blood pressure, hyperpnea, abdominal pain, hemolysis and convulsions. If death from respiratory failure is not immediate, jaundice and oliguria or anuria may occur. ACUTE/CHRONIC HAZARDS: This compound is highly toxic by ingestion, inhalation or skin absorption. It is a severe irritant of the skin and eyes. It is corrosive to the skin, eyes, mucous membranes and upper respiratory tract. When heated to decomposition it emits acrid smoke, irritating fumes and toxic fumes of carbon monoxide and carbon dioxide. (NTP, 1992)

### **4.3 Indication of immediate medical attention and special treatment needed, if necessary**

Basic treatment: Establish a patent airway. Suction if necessary. Watch for signs of respiratory insufficiency and assist ventilations if necessary. Administer oxygen by nonrebreather mask at 10 to 15 L/min. Monitor for pulmonary edema and treat if necessary. Monitor for shock and treat if necessary. Anticipate seizures and treat if necessary. For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with normal saline during transport. Administer activated charcoal. Dilution may be contraindicated because it may increase absorption. Do not use emetics. Cover skin burns with dry sterile dressings after decontamination. Phenols and Related compounds

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## **SECTION 5: Fire-fighting measures**

### **5.1 Suitable extinguishing media**

Fires involving this material can be controlled with a dry chemical, carbon dioxide or Halon extinguisher. (NTP, 1992)

### **5.2 Specific hazards arising from the chemical**

This chemical is probably combustible. (NTP, 1992)

### **5.3 Special protective actions for fire-fighters**

Use water spray, powder, alcohol-resistant foam, carbon dioxide.

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

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

Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations. If liquid: collect leaking liquid in covered plastic containers.

### **6.2 Environmental precautions**

Personal protection: chemical protection suit including self-contained breathing apparatus. Do NOT let this chemical enter the environment. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations. If liquid: collect leaking liquid in covered plastic containers.

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

Foundry plant waste gases were deodorized with potassium permanganate, and deodorization efficiency was measured by presence of 2,4-xyleneol in scrubbed waste gases.

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

## 7.1 Precautions for safe handling

NO open flames. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

## 7.2 Conditions for safe storage, including any incompatibilities

Separated from food and feedstuffs, acid anhydrides, acid chlorides, bases and oxidants. Rooms used for storage only should be soundly constructed and fitted with secure locks. Floors should be kept clear, and the pesticides clearly identified. Pesticides

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# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

### Occupational Exposure limit values

no data available

### Biological limit values

no data available

## 8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

## 8.3 Individual protection measures, such as personal protective equipment (PPE)

### Eye/face protection

Wear safety goggles, face shield or eye protection in combination with breathing protection.

### Skin protection

Protective clothing. Protective gloves.

### Respiratory protection

Use ventilation, local exhaust or breathing protection.

### Thermal hazards

no data available

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# SECTION 9: Physical and chemical properties and safety characteristics

Physical state	2,4-dimethylphenol is a colorless crystals or clear, dark amber liquid.
Colour	Crystals
Odour	no data available
Melting point/freezing point	25.4 ~ 26 °C
Boiling point or initial boiling point and boiling range	211.5 °C
Flammability	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Lower and upper explosion limit/flammability limit	no data available
Flash point	112 °C
Auto-ignition temperature	599°C
Decomposition	no data available

<b>temperature</b>	
<b>pH</b>	no data available
<b>Kinematic viscosity</b>	no data available
<b>Solubility</b>	Partially miscible with water
<b>Partition coefficient n-octanol/water</b>	log Kow= 2.30
<b>Vapour pressure</b>	0.1 mm Hg ( 25 °C)
<b>Density and/or relative density</b>	0.97
<b>Relative vapour density</b>	no data available
<b>Particle characteristics</b>	no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Decomposes on burning. This produces toxic gases and irritating fumes. Reacts with acid anhydrides, acid chlorides, bases and oxidants.

### 10.2 Chemical stability

no data available

### 10.3 Possibility of hazardous reactions

2,4-DIMETHYLPHENOL is a very weak acid (pKa = 10.6) (NTP, 1992). Incompatible with acid chlorides, acid anhydrides, bases and oxidizing agents. Corrodes steel, brass, copper and copper alloys (NTP, 1992).

### 10.4 Conditions to avoid

no data available

### 10.5 Incompatible materials

no data available

### 10.6 Hazardous decomposition products

When heated to decomposition it emits acrid smoke and irritating fumes.

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## SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 Rat oral 2300 mg/kg
- Inhalation: no data available
- Dermal: no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

#### **STOT-single exposure**

The substance is corrosive to the skin, respiratory tract and eyes. Corrosive on ingestion. Inhalation of the aerosol may cause lung oedema. See Notes.

#### **STOT-repeated exposure**

Repeated or prolonged contact may cause skin sensitization.

#### **Aspiration hazard**

No indication can be given about the rate at which a harmful concentration of this substance in the air is reached on evaporation at 20°C.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

- Toxicity to fish: LC50 Pimephales promelas (fathead minnow) 17 mg/l/96 hr /Flow through bioassay
- Toxicity to daphnia and other aquatic invertebrates: LC50 Daphnia magna (cladoceran) 2,120 ug/l/48 hr /Static, unmeasured bioassay
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

### **12.2 Persistence and degradability**

A series of experiments /were carried out/ ... to duplicate the conditions for biodegradability that would occur in a river that was receiving phenolic waste effluents from a coking plant. Unsubstituted phenol decomposed rapidly, cresols exhibited a lag period of several days, but 2,4- and 2,3- dimethylphenol seemed to be very persistent.

### **12.3 Bioaccumulative potential**

A BCF of 150 was determined for 2,4-dimethylphenol in bluegill sunfish and 28 days exposure(1). According to a classification scheme(2), this BCF suggests the potential for bioconcentration in aquatic organisms is high.

### **12.4 Mobility in soil**

The Koc of 2,4-dimethylphenol is estimated as 430(SRC), using a log Kow of 2.30(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that 2,4-dimethylphenol is expected to have moderate mobility in soil(SRC). The estimated Koc for 2,4-dimethylphenol is consistent with the Koc in river sediment and coal sediment from a pond near Leipzig, Germany which was determined to be 120 and 105 (log Koc = 2.08 and 2.02), respectively(4).

### **12.5 Other adverse effects**

no data available

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## **SECTION 13: Disposal considerations**

### **13.1 Disposal methods**

#### **Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### **Contaminated packaging**

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## **SECTION 14: Transport information**

## 14.1 UN Number

ADR/RID: UN2261 (For reference only, please check.)

IMDG: UN2261 (For reference only, please check.)

IATA: UN2261 (For reference only, please check.)

## 14.2 UN Proper Shipping Name

ADR/RID: XYLENOLS, SOLID (For reference only, please check.)

IMDG: XYLENOLS, SOLID (For reference only, please check.)

IATA: XYLENOLS, SOLID (For reference only, please check.)

## 14.3 Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.)

IMDG: 6.1 (For reference only, please check.)

IATA: 6.1 (For reference only, please check.)

## 14.4 Packing group, if applicable

ADR/RID: II (For reference only, please check.)

IMDG: II (For reference only, please check.)

IATA: II (For reference only, please check.)

## 14.5 Environmental hazards

ADR/RID: Yes

IMDG: Yes

IATA: Yes

## 14.6 Special precautions for user

no data available

## 14.7 Transport in bulk according to IMO instruments

no data available

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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
2,4-xylenol	2,4-xylenol	105-67-9	203-321-6
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015			Listed.
New Zealand Inventory of Chemicals (NZIoC)			Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)			Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.
Korea Existing Chemicals List (KECL)			Listed.

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## SECTION 16: Other information

### Information on revision

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### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

## References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

## Other Information

The symptoms of lung oedema often do not become manifest until a few hours have passed and they are aggravated by physical effort. Rest and medical observation is therefore essential. Immediate administration of an appropriate inhalation therapy by a doctor or a person authorized by him/her, should be considered.

**Any questions regarding this SDS, Please send your inquiry to [sds@xixisys.com](mailto:sds@xixisys.com)**

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