

# 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** Dilauroyl peroxide

### 1.2 Other means of identification

**Product number** -  
**Other names** Lauroyl peroxide; Dodecanoic peroxyanhydride; Dilauroyl peroxide

### 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

Organic peroxides, Type D

### 2.2 GHS label elements, including precautionary statements

**Pictogram(s)**



**Signal word** Danger  
**Hazard statement(s)** H242 Heating may cause a fire  
**Precautionary statement(s)**  
**Prevention** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Response  
Storage**

**Disposal**

P234 Keep only in original packaging.  
P235 Keep cool.  
P240 Ground and bond container and receiving equipment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...  
P370+P378 In case of fire: Use ... to extinguish.  
P403 Store in a well-ventilated place.  
P410 Protect from sunlight.  
P411 Store at temperatures not exceeding ...°C/...°F.  
P420 Store separately.  
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
Dilauroyl peroxide	Dilauroyl peroxide	105-74-8	203-326-3	100%

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

**If inhaled**

Fresh air, rest.

**Following skin contact**

Remove contaminated clothes. Rinse and then wash skin with water and soap.

**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. Refer for medical attention .

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

Contact with liquid irritates eyes and skin. Ingestion causes irritation of mouth and stomach. (USCG, 1999)

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

Treatment: prompt washing of affected areas is essential.

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## SECTION 5: Fire-fighting measures

### 5.1 Suitable extinguishing media

Water, dry chemical, foam, or carbon dioxide.

### 5.2 Specific hazards arising from the chemical

Behavior in Fire: Can increase the severity of a fire. Becomes sensitive to shock when hot. Containers may explode in a fire. May ignite or explode spontaneously if mixed with flammable materials. (USCG, 1999)

### 5.3 Special protective actions for fire-fighters

Use water in large amounts, water spray. In case of fire: keep drums, etc., cool by spraying with water. Combat fire from a sheltered position.

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## SECTION 6: Accidental release measures

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

Evacuate danger area! Consult an expert! Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Remove all ignition sources. Do NOT absorb in saw-dust or other combustible absorbents. 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.

### 6.2 Environmental precautions

Evacuate danger area! Consult an expert! Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Remove all ignition sources. Do NOT absorb in saw-dust or other combustible absorbents. 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.

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

Isolate and remove discharged material. Notify local health and pollution control agencies.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

NO open flames, NO sparks and NO smoking. Prevent warming above 25°C. 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

Fireproof. Separated from combustible substances and reducing agents. Cool. Store in a cool, well-ventilated storage of noncombustible construction, distant from residences. Separate from other stocks, especially vulcanizing agents, easily oxidizable organic materials, and combustible material; avoid fire and sparks. Provide large-quantity storage room with cool sprinkler system. Protect containers against physical damage. Do not open containers in storage room. Do not place in glass-stopper or screw-capped containers because of possible explosion caused by frictional handling.

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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 or face shield.

#### Skin protection

Protective gloves.

#### **Respiratory protection**

Use local exhaust or breathing protection.

#### **Thermal hazards**

no data available

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

<b>Physical state</b>	Lauroyl peroxide is a white solid with a faint soapy odor. Less dense than water and insoluble in water. Hence floats on water. Melting point 49°C. Toxic by ingestion and inhalation. Strong skin irritant. Used as bleaching agent, drying agent for fats, oils and waxes, and as a polymerization catalyst.
<b>Colour</b>	White coarse powder
<b>Odour</b>	Faint pungent, soapy odor
<b>Melting point/freezing point</b>	53-57°C
<b>Boiling point or initial boiling point and boiling range</b>	467°C
<b>Flammability</b>	Flammable.
<b>Lower and upper explosion limit/flammability limit</b>	no data available
<b>Flash point</b>	> 110°C
<b>Auto-ignition temperature</b>	112°C
<b>Decomposition temperature</b>	no data available
<b>pH</b>	no data available
<b>Kinematic viscosity</b>	no data available
<b>Solubility</b>	Insol in water; slightly sol in alc
<b>Partition coefficient n-octanol/water</b>	no data available
<b>Vapour pressure</b>	6.56E-09mmHg at 25°C
<b>Density and/or relative density</b>	0.91
<b>Relative vapour density</b>	13.7 (vs air)
<b>Particle characteristics</b>	no data available

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## **SECTION 10: Stability and reactivity**

### **10.1 Reactivity**

Heating may cause violent combustion or explosion. The substance is a strong oxidant. It reacts with combustible and reducing materials. This generates fire and explosion hazard.

### **10.2 Chemical stability**

Stable if not overheated

### **10.3 Possibility of hazardous reactions**

FIRE HAZARD: ORGANIC PEROXIDES CONTAIN SUFFICIENT AVAILABLE OXYGEN TO SUPPORT THEIR OWN COMBUSTION EVEN IN A DEFICIENCY OR ABSENCE OF ATMOSPHERIC OXYGEN. /PEROXIDES, ORGANIC/LAUROYL PEROXIDE is an oxidizing agent. Can ignite organic materials; hence a dangerous fire and explosion risk [Hawley]. Strongly reduced material such as sulfides, nitrides, and hydrides may react explosively. Vigorous reactions with other reducing agents. With charcoal sometimes ignites. [Bretherick, 5th ed., 1995, p. 1194].

### **10.4 Conditions to avoid**

no data available

## **10.5 Incompatible materials**

Dangerous fire & explosion risk; will ignite organic materials.

## **10.6 Hazardous decomposition products**

Becomes shock sensitive on heating, and self-accelerating decomposition sets in at 49 deg C.

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# **SECTION 11: Toxicological information**

### **Acute toxicity**

- Oral: no data available
- 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**

Evaluation: No epidemiological data relevant to the carcinogenicity of lauroyl peroxide were available. There is inadequate evidence in experimental animals for the carcinogenicity of lauroyl peroxide. Overall evaluation: Lauroyl peroxide is not classifiable as to its carcinogenicity to humans (Group 3).

### **Reproductive toxicity**

no data available

### **STOT-single exposure**

The aerosol is irritating to the eyes, skin and respiratory tract.

### **STOT-repeated exposure**

no data available

### **Aspiration hazard**

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

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# **SECTION 12: Ecological information**

## **12.1 Toxicity**

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: no data available

## **12.2 Persistence and degradability**

no data available

## **12.3 Bioaccumulative potential**

no data available

## 12.4 Mobility in soil

no data available

## 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: UN3106 (For reference only, please check.)

IMDG: UN3106 (For reference only, please check.)

IATA: UN3106 (For reference only, please check.)

## 14.2 UN Proper Shipping Name

ADR/RID: ORGANIC PEROXIDE TYPE D, SOLID (For reference only, please check.)

IMDG: ORGANIC PEROXIDE TYPE D, SOLID (For reference only, please check.)

IATA: ORGANIC PEROXIDE TYPE D, SOLID (For reference only, please check.)

## 14.3 Transport hazard class(es)

ADR/RID: 5.2 (For reference only, please check.)

IMDG: 5.2 (For reference only, please check.)

IATA: 5.2 (For reference only, please check.)

## 14.4 Packing group, if applicable

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

IMDG: (For reference only, please check.)

IATA: (For reference only, please check.)

## 14.5 Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

## 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

Dilauroyl peroxide	Dilauroyl peroxide	105-74-8	203-326-3
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.

## SECTION 16: Other information

### Information on revision

Creation Date                      July 15, 2019  
Revision Date                        July 15, 2019

### 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

Other UN number for water solution (<42%): 3109.

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

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