

## Chemical Safety Data Sheet MSDS / SDS

**1,2-DIPALMITOYL-SN-GLYCERO-3-PHOSPHO-L-SERINE, SODIUM SALT**Revision Date:2026-03-21 Revision Number:1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****Product identifier**

Product name : 1,2-DIPALMITOYL-SN-GLYCERO-3-PHOSPHO-L-SERINE, SODIUM SALT  
CBnumber : CB4764582  
CAS : 40290-42-4  
Synonyms : 1,2-DIPALMITOYL-SN-GLYCERO-3-PHOSPHO-L-SERINE, SODIUM SALT

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

**Company Identification**

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 010-86108875

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**SECTION 2: Hazards identification****GHS Label elements, including precautionary statements**

Symbol(GHS)



Signal word

Warning

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P370+P378 In case of fire: Use ... for extinction.

**Hazard statements**

H228 Flammable solid

**SECTION 3: Composition/information on ingredients****Substance**

Product name : 1,2-DIPALMITOYL-SN-GLYCERO-3-PHOSPHO-L-SERINE, SODIUM SALT  
Synonyms : 1,2-DIPALMITOYL-SN-GLYCERO-3-PHOSPHO-L-SERINE, SODIUM SALT

CAS : 40290-42-4  
MF : C38H74NO10P  
MW : 735.97

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## SECTION 4: First aid measures

### General advice

Show this safety data sheet to the doctor in attendance.

### 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.

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

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

### Protection of first-aiders

For personal protection see section 8.

### Notes to physician

No data available

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## SECTION 5: Firefighting measures

### 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.

### Specific hazards during fire fighting

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

### Hazardous combustion products

Carbon oxides Nitrogen oxides (NO<sub>x</sub>) Oxides of phosphorus Sodium oxides

### **Specific extinguishing methods**

Suppress (knock down) gases/vapours/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

### **Special protective equipment for fire-fighters**

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

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

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

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

### **Environmental precautions**

Do not let product enter drains. Risk of explosion.

### **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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

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

### **Handling**

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### **Avoidance of contact**

Strong oxidizing agents

### **Storage**

#### **Further information on storage conditions**

Tightly closed. Keep away from heat and sources of ignition.

#### **Storage class**

4.1B, Flammable solid hazardous materials

#### **Recommended storage temperature**

-20 °C

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

### **control parameter**

### **Hazard composition and occupational exposure limits**

Does not contain substances with occupational exposure limits.

## **Engineering measures**

No data available

## **Personal protective equipment**

### **Respiratory protection**

required when dusts 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.

### **Recommended Filter type**

Filter type P1

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

### **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 and body protection**

Flame retardant antistatic protective clothing.

### **Hand protection**

#### **Material**

Nitrile rubber

#### **Break through time**

480 min

#### **Glove thickness**

0.11 mm

#### **Protective index**

Full contact

#### **Manufacturer**

KCL 741 L

#### **Material**

Nitrile rubber

#### **Break through time**

480 min

#### **Glove thickness**

0.11 mm

#### **Protective index**

Splash contact

#### **Manufacturer**

KCL 741 L

### **Remarks**

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 EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D- 36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

## Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

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# SECTION 9: Physical and chemical properties

## Information on basic physicochemical properties

solid

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### Color

No data available

### Odor

No data available

### Odor Threshold

No data available

### pH

No data available

### Melting point/ range

No data available

### Boiling point/boiling range

782.6±70.0 °C(Predicted)

### Flash point

No data available

### Evaporation rate

No data available

### Flammability (solid, gas)

The substance or mixture is a flammable solid with the category 2.

### Flammability (liquids)

No data available

### Burning rate

No data available

### Upper explosion limit / Upper flammability limit

No data available

### Lower explosion limit / Lower flammability limit

No data available

### **Vapor pressure**

No data available

### **Relative vapor density**

No data available

### **Relative density**

1.057±0.06 g/cm<sup>3</sup>(Predicted)

### **Density**

1.057±0.06 g/cm<sup>3</sup>(Predicted)

### **Water solubility**

No data available

### **Partition coefficient: n-octanol/water**

No data available

### **Autoignition temperature**

No data available

### **Decomposition temperature**

No data available

### **Viscosity, dynamic**

No data available

### **Viscosity, kinematic**

No data available

### **Flow time**

No data available

### **Explosive properties**

No data available

### **Oxidizing properties**

No data available

### **Molecular weight**

757.95 g/mol

### **Particle characteristics Particle size**

No data available

## Physical state

powder

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## SECTION 10: Stability and reactivity

### Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

### Chemical stability

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

### Possibility of hazardous reactions

No data available

### Conditions to avoid

no information available

### Incompatible materials

Strong oxidizing agents

### Hazardous decomposition products

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

#### Skin corrosion/irritation

Remarks: No data available

#### Serious eye damage/eye irritation

Remarks: No data available

#### Respiratory or skin sensitization

Classified based on available data. For more details, see section 2

#### Germ cell mutagenicity

Classified based on available data. For more details, see section 2

#### Carcinogenicity

Classified based on available data. For more details, see section 2

#### Reproductive toxicity

Classified based on available data. For more details, see section 2

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

Classified based on available data. For more details, see section 2

#### **Specific target organ toxicity - repeated exposure**

Classified based on available data. For more details, see section 2

#### **Aspiration hazard**

Classified based on available data. For more details, see section 2 (1,2-Dipalmitoyl-sn-glycero-3-phospho-L-serine)

### **11.2 Additional Information**

Classified based on available data. For more details, see section 2

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## **SECTION 12: Ecological information**

### **Ecotoxicity**

#### **Components:**

##### **ethanol:**

#### **Toxicity to fish**

LC50 (Pimephales promelas (fathead minnow)): 15,300 mg/l End point: mortality Exposure time: 96 h Test Type: flow-through test Analytical monitoring: yes Method: US-EPA

#### **Toxicity to daphnia and other aquatic invertebrates**

LC50 (Ceriodaphnia dubia (water flea)): 5,012 mg/l End point: mortality Exposure time: 48 h Test Type: static test Remarks: (ECHA)

#### **Toxicity to algae/aquatic plants**

ErC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201

#### **Toxicity to fish (Chronic toxicity)**

NOEC (Danio rerio (zebra fish)): 250 mg/l Exposure time: 120 h Test Type: semi-static test Remarks: (ECHA)

#### **Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)**

NOEC (Daphnia magna (Water flea)): 9.6 mg/l End point: reproduction rate Exposure time: 9 d Test Type: semi-static test Remarks: (ECHA)

#### **Toxicity to microorganisms**

IC50 (activated sludge): > 1,000 mg/l Exposure time: 3 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 209

The value is given in analogy to the following substances: Methanol

### **Persistence and degradability**

#### **Components:**

##### **ethanol:**

#### **Biodegradability**

aerobic Inoculum: activated sludge, non-adapted Result: Readily biodegradable. Biodegradation: ca. 95 % Exposure time: 15 d Method: OECD Test Guideline 301E

#### **Biochemical Oxygen Demand (BOD)**

930 - 1,670 mg/g Incubation time: 5 d Remarks: (Lit.)

#### **ThOD**

2,100 mg/g Remarks: (Lit.)

## Bioaccumulative potential

### Components:

#### ethanol:

##### Bioaccumulation

Remarks: Due to the distribution coefficient noctanol/water, accumulation in organisms is not expected.

##### Partition coefficient: noctanol/water

log Pow: -0.35 (24 °C) pH: 7.4 Method: OECD Test Guideline 107 Remarks: Bioaccumulation is not expected.

### Mobility in soil

No data available

### Other adverse effects

### Components:

#### ethanol:

##### Results of PBT and vPvB assessment

Substance does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

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## SECTION 13: Disposal considerations

### Disposal methods

#### Waste from residues

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

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## SECTION 14: Transport information

### International Regulations

#### IATA-DGR

Not regulated as a dangerous good

UNID No. : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

Packing instruction (cargo aircraft) : Not applicable

Packing instruction (passenger aircraft) : Not applicable

## **IMDG-Code**

Not regulated as a dangerous good

UN number : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

EmS Code : Not applicable

Marine pollutant : no

## **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

## **National Regulations**

### **JT/T 617**

UN number : Not applicable

Proper shipping name : Not applicable

Class : Not applicable

Subsidiary risk : Not applicable

Packing group : Not applicable

Labels : Not applicable

Environmentally hazardous : no

## **Special precautions for user**

Remarks : Not classified as dangerous in the meaning of transport regulations.

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## SECTION 15: Regulatory information

### **National regulatory information**

#### **Law on the Prevention and Control of Occupational Diseases**

#### **Regulations on Safety Management of Hazardous Chemicals**

#### **Catalogue of Hazardous Chemicals**

#### **Hazardous Chemicals for Priority Management**

Not applicable under SAWS

#### **Catalogue of Specially Controlled Hazardous**

Listed Chemicals

#### **List of Explosive Precursors**

Not listed

## **Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals**

### **China Severely Restricted Toxic Chemicals for Import and Export**

Not applicable

### **Regulation on the Administration of Precursor Chemicals**

#### **Catalogue and Classification of Precursor Chemicals**

Not listed

### **Regulations on the Administration of Controlled Chemicals**

#### **List of Controlled Chemicals**

Not listed

### **Regulations of Ozone Depleting Substances Management**

#### **List of Controlled Ozone Depleting Substances**

Not listed

#### **List of Controlled Ozone Depleting Substances Import and Export**

Not listed

### **Environmental Protection Law**

#### **List of Priority Controlled Chemicals**

Not listed

#### **List of Key Controlled New Pollutants**

Not listed

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## SECTION 16: Other information

### **Full text of other abbreviations**

#### **ACGIH**

USA. ACGIH Threshold Limit Values (TLV)

**ACGIH / STEL AIC - Australian Invent Transport by Land of Bra bw - Body weight; CMR Standard of the German List (Canada); ECx - Conc associated with x%respo Chemical Substances (Jap response; ERG - Emerge GLP - Good Laboratory P cer; IATA - International Construction and Equipm Half maximal inhibitory c tion; IECSC - Inventory o tional Maritime Dangerou Industrial Safety and H Standardisation; KECl - K tration to 50 % of a test (Median Lethal Dose); MA lution from Ships; MERC of Dangerous Goods; n.o. - No Observed (Adverse) fect Level; NOELR - No Norm; NTP - National Toxi icals; OECD - Organisatio fice of Chemical**

**Safety and Toxic substance; PIC stances; (Q)SAR - (Quant (EC) No 1907/2006 of the Registration, Evaluation, Accelerating Decomposition Chemical Substance in Thailand Existing Chemical States); UN - United Nations Transport of Dangerous WHMIS - Workplace Hazard**

Short-term exposure limit of Industrial Chemicals

ANTT - National Agency for it

ASTM - American Society for the Testing of Materials

- Carcinogen, Mutagen or Reproductive Toxicant

DIN Institute for Standardisation

DSL - Domestic Substances Notification associated with x% response

ELx - Loading rate

EmS - Emergency Schedule

ENCS - Existing and New (n)

ErCx - Concentration associated with x% growth rate by Response Guide

GHS - Globally Harmonised System

actice

IARC - International Agency for Research on Cancer Transport Association

IBC - International Code for the Transport of Ships carrying Dangerous Chemicals in Bulk

IC50 concentration

ICAO - International Civil Aviation Organization - Existing Chemical Substances in China

IMDG - International Maritime Goods

IMO - International Maritime Organisation

ISHL - International Law (Japan)

ISO - International Organisation for Standardisation Existing Chemicals Inventory

LC50 - Lethal Concentration

LD50 - Lethal Dose to 50% of a test population POL - International Convention for the Prevention of Pollution from Ships - The Agreement for the Facilitation of the Transport of Dangerous Goods - Not Otherwise Specified

NCh - Chilean Norm

NO(A)EC - No Observed (Adverse) Effect Concentration

NO(A)EL - No Observed (Adverse) Effect Loading Rate

NOM - Official Mexican Nomenclature Program

NZIoC - New Zealand Inventory of Chemicals for Economic Co-operation and Development

OPPTS - Office of Pollution Prevention

PBT - Persistent, Bioaccumulative and Toxic - Philippines Inventory of Chemicals and Chemical Substances Structure Activity Relationship

REACH - Regulation of the European Parliament and of the Council concerning the Restriction and Regulation of Chemicals

SADT - Self-Heating Temperature

SDS - Safety Data Sheet

TCSI - Taiwan Chemical Inventory

TDG - Transportation of Dangerous Goods

TECI - Toxic Chemicals Inventory

TSCA - Toxic Substances Control Act (United States)

UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods

vPvB - Very Persistent and Very Bioaccumulative

Global Harmonized System

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.