

## Chemical Safety Data Sheet MSDS / SDS

**2-Phenoxyethanol**

Revision Date:2026-03-22 Revision Number:1

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

Product name : 2-Phenoxyethanol  
CBnumber : CB9852958  
CAS : 122-99-6  
EINECS Number : 204-589-7  
Synonyms : Phenoxyethanol,2-phenoxyethanol

**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

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

Symbol(GHS)



Signal word

Warning

**Precautionary statements**

P337+P313 IF eye irritation persists: Get medical advice/attention.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.

P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P270 Do not eat, drink or smoke when using this product.

P264 Wash skin thoroughly after handling.

**Hazard statements**

H319 Causes serious eye irritation

H302 Harmful if swallowed

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## SECTION 3: Composition/information on ingredients

### Substance

Product name	: 2-Phenoxyethanol
Synonyms	: Phenoxyethanol,2-phenoxyethanol
CAS	: 122-99-6
EC number	: 204-589-7
MF	: C8H10O2
MW	: 138.16

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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. Immediately call in ophthalmologist. Remove contact lenses.

### If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### 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. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

### Hazardous combustion

Carbon oxides products

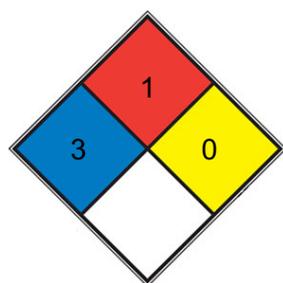
### Specific extinguishing methods

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.

### NFPA 704



**HEALTH** 3 Short exposure could cause serious temporary or moderate residual injury (e.g. [liquid hydrogen](#), [sulfuric acid](#), [calcium hypochlorite](#), hexafluorosilicic acid)

**FIRE** 1 Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. [mineral oil](#), ammonia)

**REACT** 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, [N2](#))

**SPEC.**  
**HAZ.**

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. 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.

### 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.

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## SECTION 7: Handling and storage

### Handling

For precautions see section 2.2.

### Storage

#### Further information on storage conditions

Tightly closed.

#### Storage class

10, Combustible liquids

#### Recommended storage temperature

-70°C Degree Freezer

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## SECTION 8: Exposure controls/personal protection

### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

### Engineering measures

No data available

### Personal protective equipment

#### 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.

#### Recommended Filter

Filter A (acc. to DIN 3181) for vapours of organic

#### type

compounds

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).

Tightly fitting safety goggles

#### Skin and body protection

protective clothing

#### Hand protection

#### Material

Chloroprene

**Break through time**

480 min

**Glove thickness**

0.65 mm

**Protective index**

Full contact

**Manufacturer**

KCL 720 Camapren®

**Material**

Latex gloves

**Break through time**

30 min

**Glove thickness**

0.6 mm

**Protective index**

Splash contact

**Manufacturer**

Lapren® (KCL 706 / Aldrich Z677558, Size M)

**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. Preventive skin protection recommended. Wash hands after working with substance.

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## SECTION 9: Physical and chemical properties

**Information on basic physicochemical properties**

liquid

**Color**

colourless

**Odor**

weak

**Odor Threshold**

No data available

**pH**

7 (23 °C)

Concentration: 10 g/l

**pH**

7

Method: OECD Test Guideline 105

GLP: yes

### **Melting point/ range**

11.8 °C (1,013 hPa)

Method: OECD Test Guideline 102

GLP: yes

### **Boiling point/boiling range**

245.5 °C (1,013.25 hPa)

GLP (ECHA): yes

### **Flash point**

126 °C (1012.30 hPa)

Method: Regulation (EC) No. 440/2008, Annex, A.9, closed cup

GLP: yes

### **Evaporation rate**

No data available

### **Flammability (solid, gas)**

No data available

### **Flammability (liquids)**

No data available

### **Burning rate**

No data available

### **Self-ignition**

475 °C > 997 - < 1,001 hPa

Method: DIN 51794

### **Upper explosion limit / Upper flammability limit**

Upper explosion limit

### **Lower explosion limit / Lower flammability limit**

Lower explosion limit

### **Vapor pressure**

0.02 hPa (25 °C)

Method: OECD Test Guideline 104

GLP: yes 0.01 hPa (20 °C)

Method: OECD Test Guideline 104

GLP: yes

**Relative vapor density**

4.77

**Relative density**

1.11 (20 °C)

Method: OECD Test Guideline 109

GLP: yes

**Density**

1.11 g/cm<sup>3</sup> (20 °C)

Method: OECD Test Guideline 109

GLP: yes

**Water solubility**

28.6 g/l (20.7 °C)

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

log Pow: 1.107

Method: OECD Test Guideline 117

GLP: yes Bioaccumulation is not expected.

**Autoignition temperature**

475 °C (997 - 1,001 hPa)

Method: DIN 51794

Decomposition temperature Viscosity: No data available

**Viscosity, dynamic**

41 mPa.s ( 19.8 °C)

Method: OECD Test Guideline 114

GLP: yes 19 mPa.s ( 40.5 °C)

Method: OECD Test Guideline 114

GLP: yes

**Viscosity, kinematic**

No data available

**Flow time**

No data available

**Explosive properties**

Not classified as explosive.

**Oxidizing properties**

none

**Surface tension**

70.7 mN/m, 1 g/l, 19.9 °C, OECD Test Guideline 115,

GLP: yes

**Molecular weight**

138.16 g/mol

**Particle characteristics Particle size**

No data available

**Solubility**

soluble, clear, colorless to very faintly yellow

**Physical state**

Liquid

**Viscosity**

29 mm<sup>2</sup>/s 20°C

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**SECTION 10: Stability and reactivity****Reactivity**

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

**Chemical stability**

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

**Possibility of hazardous reactions**

Violent reactions possible with: Oxidizing agents Acid anhydrides

**Conditions to avoid**

Strong heating.

**Incompatible materials**

No data available

**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**

LD50 Oral - Rat - female - 1,840 mg/kg (OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 6 h - > 1,000 mg/m<sup>3</sup> - aerosol (OECD Test Guideline 412)

LD50 Dermal - Rat - female - > 2,000 mg/kg (OECD Test Guideline 402)

**Skin corrosion/irritation**

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Causes serious eye damage. - 15 Days (OECD Test Guideline 405)

**Respiratory or skin sensitization**

Maximisation Test - Guinea pig

Result: negative (OECD Test Guideline 406)

**Germ cell mutagenicity**

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster lung cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: Positive results were obtained in some in vitro tests.

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: Chinese hamster lung cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 473

Result: negative

Test Type: Micronucleus test

Species: Mouse

Cell type: Red blood cells (erythrocytes)

Application Route: Intraperitoneal

Method: OECD Test Guideline 474

Result: negative

Test Type: unscheduled DNA synthesis assay

Species: Rat

Cell type: Liver cells

Application Route: Oral

Method: OECD Test Guideline 486

Result: negative

Test Type: Chromosome aberration test

Species: Rat

Cell type: Bone marrow

Application Route: Oral

Result: negative

Remarks: (ECHA)

#### **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**

May cause respiratory irritation. - Respiratory Tract

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

#### **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

### **11.2 Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - No observed adverse effect level - 369 mg/kg

Repeated dose toxicity - Rabbit - male and female - Dermal - 13 Weeks - No observed adverse effect level - 500 mg/kg - Lowest observed adverse effect level - > 500 mg/kg

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

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## **SECTION 12: Ecological information**

### **Ecotoxicity**

#### **Components:**

#### **2-Phenoxyethanol:**

##### **Toxicity to fish**

LC50 (Leuciscus idus (Golden orfe)): > 220 - < 460 mg/l End point: mortality Exposure time: 96 h Test Type: static test Method: DIN 38412

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

EC50 (Daphnia magna (Water flea)): > 500 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202

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

ErC50 (Desmodesmus subspicatus (green algae)): 625 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: Regulation (EC) No. 440/2008, Annex, C.3 GLP: yes

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

NOEC (Pimephales promelas (fathead minnow)): 24 mg/l End point: mortality Exposure time: 34 d Test Type: flow-through test Analytical monitoring: yes Method: OECD Test Guideline 210 GLP: yes

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

NOEC (Daphnia magna (Water flea)): 9.43 mg/l End point: reproduction rate Exposure time: 21 d Test Type: semi-static test Analytical monitoring: yes Method: OECD Test Guideline 211 GLP: yes

##### **Toxicity to microorganisms**

EC50 (activated sludge): > 1,000 mg/l Exposure time: 30 min Test Type: static test Method: OECD Test Guideline 209 GLP: yes

### **Persistence and degradability**

## Components:

### 2-Phenoxyethanol:

#### Biodegradability

aerobic Inoculum: activated sludge Concentration: 20 mg/l Result: Readily biodegradable. Biodegradation: 98 % Exposure time: 3 d Method:

OECD Test Guideline 301A GLP: yes

#### Chemical Oxygen Demand (COD)

2.127 mg/g Remarks: (IUCLID)

#### Bioaccumulative potential

## Components:

### 2-Phenoxyethanol:

#### Partition coefficient: noctanol/water

log Pow: 1.107 Method: OECD Test Guideline 117 GLP: yes Remarks: Bioaccumulation is not expected.

#### Mobility in soil

No data available

#### Other adverse effects

No data available

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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

UN/ID 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**

Catalogue of Hazardous Chemicals : This product is not listed in the catalogue of hazardous chemicals, but it meets the definition of hazardous chemicals and its principles of determination.

### **National regulatory information**

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

#### **Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)**

Not listed

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

Not listed under SAWS

## **Catalogue of Specially Controlled Hazardous**

Not listed Chemicals

## **List of Explosive Precursors**

Not listed

## **Regulations on Labour Protection in Workplaces where Toxic Substances are Used**

## **Catalogue of Highly Toxic Chemicals**

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 listed

## **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**

AiIC - Australian Inventory of Industrial Chemicals  
ANTT - National Agency for Transport by Land of Brazil  
ASTM - American Society for the Testing of Materials  
bw - Body weight  
CMR - Carcinogen, Mutagen or Reproductive Toxicant  
DIN - Standard of the German Institute for Standardisation  
DSL - Domestic Substances List (Canada)  
EC<sub>x</sub> - Concentration associated with x% response  
EL<sub>x</sub> - Loading rate associated with x% response  
EmS - Emergency Schedule  
ENCS - Existing and New Chemical Substances (Japan)  
ErC<sub>x</sub> - Concentration associated with x% growth rate response  
ERG - Emergency Response Guide  
GHS - Globally Harmonised System  
GLP - Good Laboratory Practice  
IARC - International Agency for Research on Cancer  
IATA - International Air Transport Association  
IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC<sub>50</sub> - Half maximal inhibitory concentration  
ICAO - International Civil Aviation Organization  
IECSC - Inventory of Existing Chemical Substances in China  
IMDG - International Maritime Dangerous Goods  
IMO - International Maritime Organisation  
ISHL - Industrial Safety and Health Law (Japan)  
ISO - International Organisation for Standardisation  
KECI - Korea Existing Chemicals Inventory  
LC<sub>50</sub> - Lethal Concentration to 50 % of a test population  
LD<sub>50</sub> - Lethal Dose to 50% of a test population (Median Lethal Dose)  
MARPOL - International Convention for the Prevention of Pollution from Ships  
MERCOSUR - The Agreement for the Facilitation of the Transport of Dangerous Goods  
n.o.s. - Not Otherwise Specified  
Nch - Chilean Norm  
NO(A)EC - No Observed (Adverse) Effect Concentration  
NO(A)EL - No Observed (Adverse) Effect Level  
NOELR - No Observable Effect Loading Rate  
NOM - Official Mexican Norm  
NTP - National Toxicology Program  
NZIoC - New Zealand Inventory of Chemicals  
OECD - Organisation for Economic Co-operation and Development  
OPPTS - Office of Chemical Safety and Pollution Prevention  
PBT - Persistent, Bioaccumulative and Toxic substance  
PICCS - Philippines Inventory of Chemicals and Chemical Substances  
(Q)SAR - (Quantitative) Structure Activity Relationship

REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

SADT - Self-Accelerating Decomposition Temperature

SDS - Safety Data Sheet

TCSI - Taiwan Chemical Substance Inventory

TDG - Transportation of Dangerous Goods

TECI - Thailand Existing Chemicals Inventory

TSCA - Toxic Substances Control Act (United States)

UN - United Nations

UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods

vPvB - Very Persistent and Very Bioaccumulative

WHMIS - Workplace Hazardous Materials Information 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.