# Chemical Safety Data Sheet MSDS / SDS

# 2-[(2-Methylphenoxy)methyl]oxirane

Revision Date: 2025-02-01 Revision Number: 1

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

#### **Product identifier**

Product name : 2-[(2-Methylphenoxy)methyl]oxirane

CBnumber : CB3163337

CAS : 2210-79-9

EINECS Number : 218-645-3

Synonyms : O-CRESYL GLYCIDYL ETHER,o-Tolyl glycidyl ether

### 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 : 400-158-6606

### SECTION 2: Hazards identification

### GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word Warning

### Precautionary statements

P405 Store locked up.

P391 Collect spillage. Hazardous to the aquatic environment

P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

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

P273 Avoid release to the environment.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P201 Obtain special instructions before use.

# Hazard statements

H411 Toxic to aquatic life with long lasting effects

H401 Toxic to aquatic life

H341 Suspected of causing genetic defects

H331 Toxic if inhaled

H317 May cause an allergic skin reaction

H315 Causes skin irritation

H303 May be harmfulif swallowed

# SECTION 3: Composition/information on ingredients

### **Substance**

Product name : 2-[(2-Methylphenoxy)methyl]oxirane

Synonyms : O-CRESYL GLYCIDYL ETHER,o-Tolyl glycidyl ether

CAS : 2210-79-9
EC number : 218-645-3
MF : C10H12O2
MW : 164.2

### SECTION 4: First aid measures

### **Description of first aid measures**

### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

### In case of eye contact

Flush eyes with water as a precaution.

### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. 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 2.2) and/or in section 11

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

No data available

# SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special hazards arising from the substance or mixture

Carbon oxides

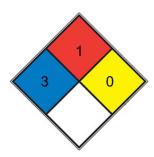
### Advice for firefighters

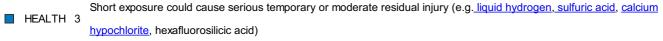
Wear self-contained breathing apparatus for firefighting if necessary.

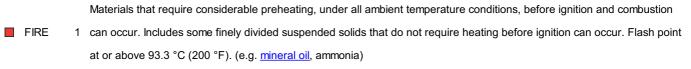
#### **Further information**

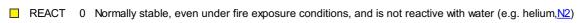
No data available

### **NFPA 704**









SPEC.

# SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

#### Reference to other sections

For disposal see section 13.

# SECTION 7: Handling and storage

### Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. For precautions see section 2.2.

### Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# SECTION 8: Exposure controls/personal protection

### control parameter

#### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

### **Exposure controls**

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

# SECTION 9: Physical and chemical properties

# Information on basic physicochemical properties

| Appearance                              | colorless liquid             |
|---|------------------------------|
| Odour                                   | No data available            |
| Odour Threshold                         | No data available            |
| рН                                      | No data available            |
| Melting point/freezing point            | No data available            |
| Initial boiling point and boiling range | 109 - 111 °C at 5 hPa - lit. |
| Flash point                             | 113 °C - closed cup          |
| Evaporation rate                        | No data available            |
| Flammability (solid, gas)               | No data available            |
| Upper/lower flammability or explosive   | No data available            |
| limits                                  |                              |
| Vapour pressure                         | No data available            |
| Vapour density                          | 5,67 - (Air = 1.0)           |
| Relative density                        | 1,079 g/cm3 at 25 °C         |
| Water solubility                        | No data available            |
| Partition coefficient: n-octanol/water  | log Pow: 5                   |
| Autoignition temperature                | No data available            |
| Decomposition temperature               | No data available            |
| Viscosity                               | No data available            |
| Explosive properties                    | No data available            |
| Oxidizing properties                    | No data available            |
| •                                       |                              |

# Other safety information

Relative vapor density

5,67 - (Air = 1.0)

# SECTION 10: Stability and reactivity

### Reactivity

No data available

### **Chemical stability**

Stable under recommended storage conditions.

# Possibility of hazardous reactions

No data available

### Conditions to avoid

No data available

### Incompatible materials

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available In the event of fire: see section 5

# **SECTION 11: Toxicological information**

### Information on toxicological effects

### **Acute toxicity**

LD50 Oral - Rat - male and female - > 5.000 mg/kg (OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - > 0,04 mg/l (OECD Test Guideline 403)

LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

#### Skin corrosion/irritation

Causes skin irritation. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 72 h (OECD Test Guideline 405)

#### Respiratory or skin sensitization

(OECD Test Guideline 429)

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

### Germ cell mutagenicity

Suspected of causing genetic defects. Ames test

S. typhimurium Result: positive

**OECD Test Guideline 474** 

Mouse - male and female - Bone marrow Result: negative

Mouse - male - Bone marrow Result: negative

(ECHA)

OECD Test Guideline 488

Mouse - male and female - Bone marrow Result: negative

### Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

### 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

#### **Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - 90 Days - NOAEL (No observed adverse effect level) - 600 mg/kg

RTECS: TZ3700000

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

# **SECTION 12: Ecological information**

### **Toxicity**

### Toxicity to fish

static test LC50 - Oncorhynchus mykiss (rainbow trout) - ca. 2,8 - 5,1 mg/l - 96 h

(OECD Test Guideline 203)

#### Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - ca. 3,3 mg/l - 48 h (OECD Test Guideline 202)

### Toxicity to algae

static test EC50 - Pseudokirchneriella subcapitata - ca. 5,1 mg/l - 72 h

(OECD Test Guideline 201)

### Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: ca.11 - 17 % - Not readily biodegradable. (OECD Test Guideline 301B)

### Bioaccumulative potential

No data available

### Mobility in soil

No data available

### Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### Other adverse effects

Toxic to aquatic life with long lasting effects. No data available

# **SECTION 13: Disposal considerations**

### Waste treatment methods

### **Product**

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

### Contaminated packaging

Dispose of as unused product.

# **SECTION 14: Transport information**

### **UN** number

ADR/RID: 3082 IMDG: 3082 IATA: 3082

### **UN proper shipping name**

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,2-Epoxy-3-(2-

methylphenoxy)propane)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,2-Epoxy-3-(2-

methylphenoxy)propane)

IATA: Environmentally hazardous substance, liquid, n.o.s. (1,2-Epoxy-3-(2- methylphenoxy)propane)

### Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

### **Packaging group**

ADR/RID: III IMDG: III IATA: III

#### **Environmental hazards**

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

### Special precautions for user

### **Further information**

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids. Packages smaller than or equal to 5 kg / L, not dangerous goods of Class 9

# **SECTION 15: Regulatory information**

### Safety, health and environmental regulations/legislation specific for the substance or mixture

### Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

## Measures for Environmental Management of New Chemical Substances

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

EC Inventory:Listed.

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

### SECTION 16: Other information

### Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit TWA: Time Weighted Average

#### References

[1] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

[2] ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

[3] ECHA - European Chemicals Agency, website: https://echa.europa.eu/

[4] eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request\_locale=en

[5] ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

[6] Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

[7] HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

[8] IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

[9] IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】 Sigma-Aldrich, website: https://www.sigmaaldrich.com/

### Other Information

Check for peroxides prior to distillation; eliminate if found.

### 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.