



Chemical Safety Data Sheet

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name: Vinylcyclohexene dioxide

Synonyms: 3-Epoxyethyl-7-oxabicyclo[4.1.0]heptane; 1,2-Epoxy-4-epoxyethylcyclohexane

CAS No.: 106-87-6

Company: Unilong Industry Co.,Ltd.

Address: No.2000 Shunhua Rd, High-Tech Zone, Jinan City, Shandong Province, China

Tel: +86 0531 55690071

Section 2: COMPOSITION / INFORMATION ON INGREDIENTS

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 3)

Acute toxicity, Dermal (Category 3)

Carcinogenicity (Category 2)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Toxic by inhalation, in contact with skin and if swallowed. Possible risk of irreversible effects.

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008 [CLP]

Pictogram



Signal word	Danger Hazard statement(s)
-------------	----------------------------

H301	Toxic if swallowed.
------	---------------------

H311	Toxic in contact with skin
------	----------------------------

H331	Toxic if inhaled.
------	-------------------

H351	Suspected of causing cancer.
------	------------------------------

Precautionary statement(s)

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

P280	Wear protective gloves/ protective clothing
------	---



P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P311 Call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements: None

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)

R-pharse(s)

R23/24/25 Toxic by inhalation, in contact with skin and if swallowed

R68 Possible risk of irreversible effects

S-pharse(s)

S23 Do not breathe gas/fumes/vapour/spray

S24 Avoid contact with skin

S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

2.3 Other hazards - none

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Formula: C₈H₁₂O₂

Molecular Weight: 140,18 g/mol

Component Concentration: 4-Vinylcyclohexene dioxide

CAS-No. 106-87-6

EC-No. 203-437-7

Section 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Consult a physician. Show this 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. Take victim immediately to hospital. 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.

4.2 Most important symptoms and effects, both acute and delayed

Cough, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed: NA

Section 5: FIREFIGHTING MEASURES



5.1 Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture: Carbon oxides

5.3 Advice for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information: NA

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 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.

6.4 Reference to other sections

For disposal see section 13.

Section 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

7.2 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. Store under inert gas.

7.3 Specific end uses: NA

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after



handling the product.

Personal protective equipment

Eye/face protection

Face shield and safety glasses 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 EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, 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).

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- | | |
|---|---------------------------------|
| a) Appearance | Form: liquid Color: light brown |
| b) Odor: | NA |
| c) Odor Threshold | NA |
| d) pH | NA |
| e) Melting point/freezingpoint | NA |
| f) Initial boiling point and boiling range: | 230 - 232 ° C - lit. |
| g) Flash point | 107 ° C - closed cup |
| h) Evaporation rate | NA |
| i) Flammability (solid, gas) | NA |
| j) Upper/lower flammability or explosive limits | NA |
| k) Vapour pressure | NA |
| l) Vapour density | NA |
| m) Relative density | 1,094 g/mL at 25 ° C |
| n) Water solubility | NA |
| o) Partition coefficient: | NA octanol/water |
| p) Autoignition temperature | NA |



q) Decomposition temperature	NA
r) Viscosity	NA
s) Explosive properties	NA
t) Oxidizing properties	NA

9.2 Other safety information NA

Section 10: STABILITY AND REACTIVITY

10.1 Reactivity: NA

10.2 Chemical stability: NA

10.3 Possibility of hazardous reactions: NA

10.4 Conditions to avoid: NA

10.5 Incompatible materials: Strong oxidizing agents

10.6 Hazardous decomposition products Other decomposition products - NA

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - rat - 2.130 mg/kg

LC50 Inhalation - rat - 4 h - 800 ppm

LD50 Dermal - rabbit - 678 mg/kg

Skin corrosion/irritation NA

Serious eye damage/eye irritation NA

Respiratory or skin sensitization NA

Germ cell mutagenicity

Laboratory experiments have shown mutagenic effects.

Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Vinylcyclohexane diepoxide) Reproductive toxicity NA

Specific target organ toxicity - single exposure NA

Specific target organ toxicity - repeated exposure NA

Aspiration hazard NA

Potential health effects

Inhalation Toxic if inhaled. May cause respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin Toxic if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

Cough, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.



Additional Information

RTECS: RN8640000

Section 12: ECOLOGICAL INFORMATION

12.1 Toxicity NA

12.2 Persistence and degradability NA

12.3 Bioaccumulative potential NA

12.4 Mobility in soil NA

12.5 Results of PBT and vPvB assessment NA

12.6 Other adverse effects NA

Section 13: DISPOSAL CONSIDERATIONS

13.1 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

14.1 UN number

ADR/RID: 2810 IMDG: 2810 IATA: 2810

14.2 UN proper shipping name

ADR/RID: TOXIC LIQUID, ORGANIC, N.O.S. (Vinylcyclohexane diepoxide) IMDG: TOXIC LIQUID, ORGANIC, N.O.S. (Vinylcyclohexane diepoxide)

IATA: Toxic liquid, organic, n.o.s. (Vinylcyclohexane diepoxide)

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user NA

Section 15: REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: NA

15.2 Chemical Safety Assessment: NA

Section 16: OTHER INFORMATION

Further information

License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.