



CHUANG XIN

福建创鑫科技开发有限公司

FUJIAN CHUANG XIN SCIENCE AND DEVELOPS CO., LTD.

Tel : +86-591-83704867 Fax: +86-591-83753263 E-mail:kfb@fjirs.ac.cn

MATERIAL SAFETY DATA SHEET

Section 1. Product and company information

Product Name : 4-VINYL-1,3-DIOXOLAN-2-ONE (99.5%)

Synonyms : Vinyl Ethylene Carbonate (VEC)

Company : FuJian Chuangxin Science and Develops Co.,Ltd.

Phone : +86-591-83704867

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E-mail address : kfb@fjirms.ac.cn

Section 2. Composition/information on ingredients

Formula : $C_5H_6O_3$

Molecular Weight : 114.10 g/mol

CAS-No. : 4427-96-7

Section 3. Hazards summarizing

Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Acute toxicity, Oral (Category 3)

Eye irritation (Category 2)

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

Toxic if swallowed.

Section 4. 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

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

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5. Fire-fighting measures

Suitable extinguishing media

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

Special hazards arising from the substance or mixture

Carbon oxides, Sulphur oxides

Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

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.

Environmental precautions

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

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.

Section 7. Handling and storage

Precautions for safe handling

Avoid inhalation of vapour or mist.

Normal measures for preventive fire protection.

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.

Recommended storage temperature: 2 - 8 °C

Heat sensitive.

Specific end use(s)

no data available

Section 8. Exposure controls/personal protection

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

Tightly fitting safety goggles. Faceshield (8-inch minimum). 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

Appearance

Form: clear, liquid

Safety data

pH value : no data available

Melting point : no data available

Boiling point : 237 °C

Flash point : 96.9 °C - closed cup

Auto-ignition temperature : no data available

Lower explosive limits : no data available
Upper explosive limits no data available
Water solubility : no data available
Vapour pressure : no data available
Vapour density : no data available
Relative density : 1,188 g/mL at 25 °C
Partition coefficient (noctanol/water) : 0.89
Decomposition temperature : no data available
Viscosity : no data available
Explosive properties : no data available
Oxidizing properties : no data available

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

Heat

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - Carbon oxides

Section 11. Toxicological information

Acute toxicity

LD50 Oral - rat - 167 mg/kg

LD50 Dermal - rat - > 2.000 mg/kg

Skin corrosion/irritation

Skin - rabbit - Mild skin irritation

Serious eye damage/eye irritation

Eyes - rabbit - Mild eye irritation

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component 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

Aspiration hazard

no data available

Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion Toxic if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

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

Additional Information

RTECS: no data available

Section 12. Ecological information

Elimination information (persistence and degradability)

Toxicity

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - > 111,8 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - Daphnia - > 120,5 mg/l - 48 h

Toxicity to algae EC50 - Pseudokirchneriella subcapitata (green algae) - > 102,6 mg/l - 72 h

Ecotoxicity effects

no data available

Further information on ecology

no data available

Section 13. Disposal considerations

Waste treatment methods



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Product

This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. 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:2810

IMDG: 2810

IATA: 2810

UN proper shipping name

ADR/RID: TOXIC LIQUID, ORGANIC, N.O.S. (4-Vinyl-1,3-dioxolan-2-one)

IMDG: TOXIC LIQUID, ORGANIC, N.O.S. (4-Vinyl-1,3-dioxolan-2-one)

IATA: TOXIC LIQUID, ORGANIC, N.O.S. (4-Vinyl-1,3-dioxolan-2-one)

Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

Packaging group

ADR/RID:III

IMDG: III

IATA: III

Environmental hazards

ADR/RID: no

IMDG Marine Pollutant: no

IATA: no

Section 15. Regulatory information

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

Further information

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. Fujian Chuangxin Science and Develops Co., Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.