



Lee&Man

珠海理文新材料有限公司

Zhuhai Lee&Man Materials Science CO., LTD.

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MATERIAL SAFETY DATA SHEET

Section 1. Product and company information

Product Name : 4-Fluoro-1,3-dioxolan-2-one (99.95%)

Synonyms : Fluoroethylene carbonate (FEC)

Company : Zhuhai Lee&Man Materials Science Co.,Ltd.

Phone : +86-756-87799368

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Section 2. Composition/information on ingredients

Formula : C₃H₃FO₃

Molecular Weight : 106.05300

CAS-No. : 114435-02-8

Section 3. Hazards summarizing

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin sensitization (Category 1)

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

May cause sensitization by skin contact.

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

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

Normal measures for preventive fire protection.

Conditions for safe storage

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.

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

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: liquid

Colour: colourless

Safety data

pH value : no data available

Melting point : 18-23 °C

Boiling point : 212 °C

Flash point : > 101.7°C

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 : 1.454 g/mL at 25 °C

Partition coefficient (noctanol/water) : -0.367



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

no data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Other decomposition products - Carbon oxides

Section 11. Toxicological information

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

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: RTECS: WT3500000

Section 12. Ecological information**Elimination information (persistence and degradability)****Toxicity**

no data available

Ecotoxicity effects

no data available

Further information on ecology

no data available

Section 13. Disposal considerations**Waste treatment methods****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: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods



Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID:- IMDG: - IATA: -

Environmental hazards

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

Special precautions for user

no data available

Section 15. Regulatory information

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

Section 16. Other information**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. Zhuhai Lee&Man Materials Science Co.,Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.