

Safety Data Sheet (MSDS) for Laurocapram

Manufacturer: Shandong Ruisheng Pharmaceutical Excipients Co., Ltd.

Packaging Specification: 20KG/drum

Manufacturer's Address: Middle Section of West Ring Road, Dong'e County, Liaocheng City, Shandong Province

Contact Number: 0635-5018008

Section 1: Chemical Product and Company Identification

Chemical Name: Laurocapram

This product is 1-dodecylhexahydro-2H-azepin-2-one, containing 97.0% ~ 102.0% of $C_{18}H_{35}NO$.

Chemical English Name: Laurocapram

CAS No.: 59227-89-3

Section 2: Composition/Information on Ingredients

Nature: Compound

This product is a colorless and transparent viscous liquid.

It is extremely soluble in anhydrous ethanol, ethyl acetate or cyclohexane, and insoluble in water.

It is used as a skin penetration enhancer, etc.

Section 3: Hazards Identification

Hazard Class: Not defined by national standards

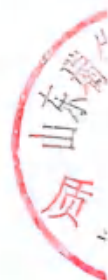
Routes of Exposure: Ingestion

Health Hazards: Harmful if ingested

Environmental Hazards: Minor

Section 4: First-Aid Measures

General Advice: Consult a physician.



Inhalation: If inhaled, remove the victim to fresh air. Perform artificial respiration if breathing stops.

Skin Contact: Wash with soap and plenty of water.

Eye Contact: Rinse thoroughly with plenty of water for at least 15 minutes and seek medical attention.

Ingestion: Rinse mouth with water and seek medical attention. Do not give anything by mouth to an unconscious person.

No detailed information available on symptoms requiring immediate medical and special treatment.

Section 5: Fire-Fighting Measures

Nature: This product is not a flammable substance but is combustible.

Extinguishing Media: Dry chemical powder, carbon dioxide

Special Hazards: In case of fire, the release of other toxic gases cannot be ruled out, e.g., Carbon Monoxide (CO)

Special Extinguishing Methods: Avoid inhalation of dust/fumes/gases/mists/vapors/spray

Special Protective Equipment for Firefighters: Wear appropriate respiratory protection in case of insufficient ventilation.

Section 6: Accidental Release Measures

Protective Measures

Wear protective clothing and respiratory protection to avoid exposure to fumes/dust/aerosols.

Environmental Protection Measures

Do not allow the product to enter sewage systems or any water sources.

Spill/Leakage Disposal

Absorb with sand or other inert materials, or rinse with plenty of water, dilute and discharge into wastewater collection systems.

Section 7: Handling and Storage

In accordance with the provisions of the 2025 Edition of Volume IV of the Chinese Pharmacopoeia and the results of stability studies, laurocapram shall be stored in a light-resistant and sealed container.



Section 8: Exposure Controls/Personal Protection

Engineering Controls

Operate in a sealed system with adequate ventilation.

Respiratory Protection

Wear self-priming filter type half-mask respirator when the concentration in the air exceeds the limit; wear air respirator during emergency evacuation or first aid.

Eye Protection

Wear chemical safety goggles.

Body Protection

Wear poison-proof permeable protective work clothes.

Hand Protection

Wear rubber gloves.

Other Protection

None

Section 9: Physical and Chemical Properties

Main Component: Compound

Physical State: Colorless and transparent viscous liquid

Color: Colorless and transparent

Viscosity: 32 ~ 34mm²/S at 25°C

Specific Gravity/Density: 0.906 ~ 0.926

Section 10: Stability and Reactivity

Stability: Stable at low temperatures.

Section 11: Toxicological Information

Laurocapram is a new type of high-efficiency and non-toxic skin penetration enhancer. It can increase the fluidity of the stratum corneum, cause irregular arrangement of the lipids in the stratum corneum, and facilitate the penetration and absorption of drugs through the stratum corneum. Laurocapram is non-toxic and non-

irritating to the skin. It is a colorless, odorless and transparent oily liquid, insoluble in water (forming an emulsion with water), and easily soluble in most organic solvents such as ethanol, propanol and chloroform. Adding it to creams or liniments gives the products a comfortable lubricating feel.

Acute oral toxicity test: LD50 is 7.3 ± 0.8 g/kg, confirming its non-toxicity.

Emulsions or creams containing less than 10% laurocapram are non-irritating and non-allergenic to the skin.

References

1. Translated by Zheng Junmin. *Handbook of Pharmaceutical Excipients (4th Edition)*. Beijing: Chemical Industry Press, 2005:203
2. Pharmaceutical Excipient Database, Center for Drug Evaluation, National Medical Products Administration

Section 12: Ecological Information

Persistence and Degradability

Readily biodegradable.

Other Information

- Potential for Bioaccumulation: No expected accumulation in organisms.
- Mobility in Soil: No detailed information available.
- Additional Ecological Information: Do not allow undiluted or large quantities of the product to contact groundwater, water courses or sewage systems; Water Hazard Class: Slightly hazardous to water.
- Other Adverse Effects: No detailed information available.

Section 13: Disposal Considerations

Disposal Methods

Recommendation: Must be disposed of in strict accordance with government regulations.

Contaminated Containers and Packaging

Recommendation: Must be discarded in accordance with official rules.

Section 14: Transport Information

Transport Hazard Class: Not specified

Environmentally Hazardous: No

Marine Pollutant: No

Special Precautions for Users: Not applicable

Section 15: Regulatory Information

Not listed in the Hazardous Chemicals Catalogue.

Chemical Safety Assessment: Not yet conducted.

Section 16: Other Information

None

Shandong Ruisheng Pharmaceutical Excipients Co., Ltd.

October 14, 2025

