

MATERIAL SAFETY DATA SHEET

Lipocrine

Page: 1

Cayman Chemical Company
1180 E. Ellsworth Rd.
Ann Arbor, MI 48108

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1. Product and Company Identification

Product Code: 10006733
Product Name: Lipocrine
Manufacturer Information
Company Name: Cayman Chemical Company
Emergency Contact: Cayman Chemical Company (800)364-9897
Information: Cayman Chemical Company (734)971-3335
Chemical Family: Inhibitors
Synonyms: 1,2,3,4-tetrahydro-6-chloro-9-(N-D,L-.alpha.-lipooylamidopropyl)-amino-acridine

2. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	CAS #	Percentage	OSHA TWA	ACGIH TLV	Other Limits
1. Lipocrine	NA	1.0 %	No data.	No data.	No data.
2. Ethyl alcohol	64-17-5	49.5 %	8H TWA:1000 ppm (1900 mg/m3)	1000 ppm	No data.
3. Dichloromethane	75-09-2	49.5 %	8H TWA:25 ppm (174 mg/m3)	50 ppm	No data.
Hazardous Components (Chemical Name)	RTECS #	OSHA STEL	OSHA CEIL	ACGIH STEL	ACGIH CEIL
1. Lipocrine	NA	No data.	No data.	No data.	No data.
2. Ethyl alcohol	KQ6300000	No data.	No data.	No data.	No data.
3. Dichloromethane	PA8050000	125 ppm (15 min)	No data.	No data.	No data.

3. Hazards Identification

Emergency Overview: No data available.

Route(s) of Entry: Inhalation? Yes Skin? Yes Eyes? Yes Ingestion? Yes Other: Injection

Potential Health Effects (Acute and Chronic): Can cause cancer.
Causes eye, skin, or respiratory system irritation.
Contains a California Prop. 65 carcinogen.
Extremely hazardous in case of eye contact.
The hazards identified with this product are those associated with the solvent(s).
Long term repeated oral exposure to ethanol may result in the development of progressive liver injury with fibrosis.
Material is irritating to the mucous membranes and upper respiratory tract.
Material is harmful by inhalation, ingestion, or skin absorption.
May cause severe allergic skin reaction.
Repeated exposure may cause skin dryness or cracking.
Repeated ingestion of ethanol by pregnant mothers has been shown to adversely affect the CNS system of the fetus, producing a collection of effects which together constitute fetal alcohol syndrome. These include mental and physical retardation, disturbances of learning, motor and language deficiencies, behavioral disorders and small size head.
The toxicological properties of this compound have not been fully evaluated.

LD 50/LC 50: Please refer to Section 11.

Signs and Symptoms Of Exposure: Exposure may cause: Dizziness, drowsiness, headache, nausea, and vomiting.
Inflammation of the eye is characterized by redness, watering, and itching.
Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Medical Conditions Generally Aggravated By Exposure: Repeated exposure to ethanol may aggravate liver injury produced from other causes.
Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

MATERIAL SAFETY DATA SHEET

Lipocrine

Page: 2

Printed: 09/07/2006

Revision: 09/05/2006

4. First Aid Measures

Emergency and First Aid Procedures:

If inhaled remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

If swallowed, wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

In case of contact with eyes, hold eyelids apart and flush eyes with plenty of water. After initial flushings, remove any contact lenses and continue flushing for at least 20 minutes. Have eyes examined and tested by medical personnel.

In case of skin contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

5. Fire Fighting Measures

Flash Pt:

No data.

Explosive Limits:

LEL: No data.

UEL: No data.

Fire Fighting Instructions:

As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

Note: Flammable as diluted in ethanol and methylene chloride.

Flammable Properties and Hazards:

Can release vapors that form explosive mixtures at temperatures at or above the flashpoint.

Container explosion may occur under fire conditions.

Emits toxic fumes under fire conditions.

Flammable liquid.

Vapors can travel to a source of ignition and flash back.

Hazardous Combustion Products:

carbon dioxide
carbon monoxide
halogens

Extinguishing Media:

Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray when fighting fires involving this material.

Unsuitable Extinguishing Media:

No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled:

Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container.

After removal, ventilate contaminated area and flush thoroughly with water.

7. Handling and Storage

Hazard Label Information:

Avoid contact with skin and eyes. Do not reuse this container. Use with adequate ventilation.

Wash thoroughly after handling.

Precautions To Be Taken in Handling:

Avoid breathing (dust, vapor, mist, gas).

Avoid contact with eyes, skin, and clothing.

Avoid prolonged or repeated exposure.

Do not reuse this container.

Keep away from sources of ignition.

Use with adequate ventilation.

Wash thoroughly after handling.

Precautions To Be Taken in Storing:

Store at correct temperature.

8. Exposure Controls/Personal Protection

Protective Equipment Summary - Hazard Label Information:

Eye wash station in work area Lab coat Protective gloves Safety glasses Safety shower
in work area Vent Hood

Respiratory Equipment (Specify Type):

Government approved respirator as conditions warrant.

Eye Protection:

Safety glasses

Protective Gloves:

Protective gloves

Other Protective Clothing:

Lab coat

MATERIAL SAFETY DATA SHEET

Lipocrine

Page: 3

Printed: 09/07/2006

Revision: 09/05/2006

Engineering Controls (Ventilation etc.): Good general ventilation should be sufficient to control airborne levels.

Work/Hygienic/Maintenance Practices: Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

9. Physical and Chemical Properties

Physical States: ☐ Gas ☒ Liquid ☐ Solid

Melting Point: No data.

Boiling Point: No data.

Autoignition Pt: No data.

Flash Pt: No data. Method:

Explosive Limits: LEL: No data. UEL: No data.

Specific Gravity (Water = 1): No data.

Vapor Pressure (vs. Air or mm Hg): No data.

Vapor Density (vs. Air = 1): No data.

Evaporation Rate (vs Butyl Acetate=1): No data.

Solubility in Water: 0.25 mg/ml* at 25.0 C

Other Solubility Notes: *DMSO:PBS (pH 7.2)(1:2), sol. in EtOH, DMF & DMSO

Percent Volatile: No data.

Corrosion Rate: No data.

Formula: C₂₄H₃₂CIN₃OS₂

Molecular Weight: 478.10

pH: No data.

Appearance and Odor: A clear, colorless solution

10. Stability and Reactivity

Stability: Unstable ☐ Stable ☒

Conditions To Avoid - Instability: No data available.

Incompatibility - Materials To Avoid: metals
strong inorganic acids
strong oxidizing agents

Hazardous Decomposition Or Byproducts: carbon dioxide
carbon monoxide
halogenated compounds

Hazardous Polymerization: Will occur ☐ Will not occur ☒

Conditions To Avoid - Hazardous Polymerization: No data available.

11. Toxicological Information

Toxicological Information: The toxicological effects of this compound have not been thoroughly studied.

Dichloromethane - Toxicity Data:
Oral LD50 (rat):1600 mg/kg

Dichloromethane - Irritation Data:
Skin (rabbit):100 mg 24H moderate effect
Eyes (rabbit):162 mg moderate effect

Chronic Toxicological Effects: Dichloromethane - Investigated as a carcinogen, mutagen and reproductive effector.
Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here.
See actual entry in RTECS for complete information.
Dichloromethane RTECS Number: PA8050000

MATERIAL SAFETY DATA SHEET

Lipocrine

Page: 4
Printed: 09/07/2006
Revision: 09/05/2006

Carcinogenicity/Other Information: Dichloromethane (methylene chloride) is reasonably anticipated to be a human carcinogen based on sufficient evidence of carcinogenicity in experimental animals (NTP 1986).
No adequate human studies of the relationship between exposure to dichloromethane and human cancer were found (IARC 1979, 1982, 1999).

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No

12. Ecological Information

Ecological Information: Runoff from fire control or dilution water may cause pollution.

13. Disposal Considerations

Waste Disposal Method: Dispose in accordance with local, state and federal regulations.

14. Transport Information

LAND TRANSPORT (US DOT)

DOT Proper Shipping Name: Ethyl alcohol, methylene chloride
DOT Hazard Class: 3
DOT Hazard Label: FLAMMABLE LIQUID
UN/NA Number: 1170
DOT Packing Group: II

Additional Transport Information: Transport in accordance with local, state, and federal regulations.

15. Regulatory Information

US EPA SARA Title III

Hazardous Components (Chemical Name)	CAS #	Sec.302 (EHS)	Sec.304 RQ	Sec.313 (TRI)	Sec.110
1. Lipocrine	NA	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	No	No
3. Dichloromethane	75-09-2	No	Yes 1000 LB	Yes	Yes

US EPA CAA, CWA, TSCA

Hazardous Components (Chemical Name)	CAS #	EPA CAA	EPA CWA NPDES	EPA TSCA	CA PROP 65
1. Lipocrine	NA	No	No	No	No
2. Ethyl alcohol	64-17-5	No	No	No	No
3. Dichloromethane	75-09-2	HAP	Yes	8A CAIR	Yes

16. Other Information

Company Policy or Disclaimer

For research use only, not for human or veterinary clinical use.

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