

Section 1 - Product and Company Identification

1.1 Product identifiers

Product name: **Leptomycin B**

Catalog code: inh-lep-10

CAS number: Not available

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use: Laboratory chemicals

Disclaimer: All InvivoGen products are supplied for research and laboratory use only. Not for drug, household or other uses.

1.3 Details of the supplier of the safety data sheet

Company:

InvivoGen US, 10515 Vista Sorrento Parkway
San Diego, California 92121, USA
(+1) 888 457 5873

InvivoGen Europe, 5 rue Jean Rodier
31400 Toulouse, France
+33 (0) 5 62 71 69 39

InvivoGen Asia, Unit 307, 3F,
8W Phase 2 Hong Kong Science Park,
Pak Shek Kok, Hong Kong
+852 3622 3480

1.4 Emergency telephone number: ORFILA (INRS): +33 (0)1 45 42 59 59

Section 2 – Hazards Identification

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

Flammable liquids (Category 2), H225
Eye irritation (Category 2A), H319

2.2 Label elements according to Regulation (EC) No 1272/2008 [CLP] and GHS

Pictogram



Signal word: Danger

Hazard statement(s)

H225: Highly flammable liquid and vapour.
H319: Causes serious eye irritation.

Precautionary statement(s)

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.


P280 Wear protective gloves/eye protection/face protection.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/attention.

2.3 Other hazards - none

Section 3 – Composition/Information on Ingredient

3.2 Mixtures

Synonyms: Leptomycin B (cas number: 87081-35-4) is provided as a 10 µM solution (5.4 µg/ml in ethanol). The hazardous component is listed below.

Component	CAS Number	GHS Classification	Pictogram	Concentration
Ethanol	64-17-5	Flam. Liq. 2; Eye Irrit. 2A; H225, H319		≥99%

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. Move out of dangerous area.

If inhaled: If breathed in, remove to fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash skin with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Do NOT induce vomiting. 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

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available

Section 5 – Fire Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media: Use water spray, carbon dioxide, dry chemical powder or appropriate foam.

5.2 Specific hazards arising from the chemical

No data available

5.3 Special Firefighting Procedures

Wear self-contained breathing apparatus for firefighting if necessary.

Section 6 – Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

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 according to local regulations (see section 13).

6.4 Reference to other sections

For disposal see section 13.

Section 7 – Handling and Storage

7.1 Precautions for safe handling

Keep away from open flames, hot surfaces, and sources of ignition. Take precautionary measures against static discharge. Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Recommended storage temperature: -20 °C.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8 – Exposure Controls/PPE

8.1 Control parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	1,000 ppm 1,900 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
	Remarks	The value in mg/m3 is approximate.		
		STEL	1,000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Confirmed animal carcinogen with unknown relevance to humans		
		TWA	1,000 ppm 1,900 mg/m3	USA. NIOSH Recommended Exposure Limits
		PEL	1,000 ppm 1,900 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

8.2 Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

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.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

Section 9 – Physical/Chemical Properties**9.1 Information on basic physical and chemical properties****Appearance**

Physical state: Liquid

Color: Colorless

Safety Data

Odor: No data available

Odor threshold: No data available

pH: No data available

Melting point/freezing point: -114 °C

Initial boiling point and boiling range: 78 °C

Flash point: 13 °C - closed cup

Evaporation rate: No data available

Flammability: No data available

Upper/lower flammability or explosive limits: Upper explosion limit: 19 %(V) Lower explosion limit: 3.3 %(V)

Vapor pressure: 5.95 kPa at 20 °C

Relative density: 0.7849 g/mL at 25 °C

Solubility in water: Miscible

Partition coefficient (n-octanol/water): log Pow: -0.35 at 24 °C

Autoignition temperature: 365 °C

Decomposition temperature: No data available

Viscosity: No data available

9.2 Other safety information

no data available

Section 10 – Stability and Reactivity

10.1 Reactivity: No data available

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: No data available

10.4 Conditions to avoid: No data available

10.5 Incompatible materials: No data available

10.6 Hazardous decomposition products: No data available

In case of fire: See section 5

Section 11 – Toxicological Information**11.1 Information on toxicological effects****Acute toxicity:**

Oral LD50: LD50 Oral – Rat (3-4 months old) - 10,600 mg/kg

LD50 Oral – Rat (10-12 months old) - 7,060 mg/kg

Reference: Wiberg GS. et al., 1970. Increased ethanol toxicity in old rats: changes in LD50, *in vivo* and *in vitro* metabolism, and liver alcohol dehydrogenase activity. Toxicol Appl Pharmacol. 16(3):718-27.

Inhalation LC50: No data available

Dermal LD50: No data available

Other information on acute toxicity: No data available

Skin corrosion/irritation: Skin - Rabbit

Result: No skin irritation - 24 h

(OECD Test Guideline 404)

Serious eye damage/irritation: Eyes - Rabbit

Result: Moderate eye irritation

(OECD Test Guideline 405)

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Additional information: No data available

Section 12 – Ecological Information

12.1 Toxicity: No data available

12.2 Persistence and degradability: No data available

12.3 Bioaccumulative potential: No data available

12.4 Mobility in soil: No data available

12.5 Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required or not conducted.

12.6 Other adverse effects: No data available

Section 13 – Disposal Considerations

13.1 Waste treatment methods

Product: Observe all federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Must not be disposed of together with household garbage.

Contaminated Packaging: Dispose of as unused product.

Section 14 – Transport Information

14.1 UN number

ADR/RID: 1170 DOT (US): 1170 IMDG: 1170 IATA: 1170

14.2 UN proper shipping name

Ethanol

14.3 Transport hazard class(es)

ADR/RID: 3 DOT (US): 3 IMDG: 3 IATA: 3

14.4 Packaging group

ADR/RID: II DOT (US): II IMDG: II IATA: II

14.5 Environmental hazards

ADR/RID: no DOT (US): no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not applicable

Section 15 – Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical Safety Assessment
no data available

Section 16 – Other Information

The information contained in this SDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). InvivoGen provides this information in good faith and is based on our present knowledge. This SDS is provided without warranty of any kind. The recipient is responsible for ensuring that, where applicable, existing laws and guidelines are observed.