



Section 1. Product and Company Identification

Product Name Enniatin B1
Product ID E537335
Chemical Name (Synonyms) Enniatin B1
Supplier LKT Laboratories, Inc
545 Phalen Blvd.
St. Paul, MN 55130 USA
Ph: 651-644-8424 Fax: 651-644-8357
www.lktlabs.com - getinfo@lktlabs.com

Emergency Phone # 1-800-424-9300

Section 2. Hazards Identification

GHS Classification Acute Toxicity: Inhalation, (Category 3) H331
Acute Toxicity: Oral, (Category 3) H301
Acute Toxicity: Skin, (Category 3) H311

GHS Label elements including precautionary statements

Pictogram



Signal word Danger

Hazard statement

Hazard and precautionary statements

H301 + H311 + H331 - Toxic if swallowed, in contact with skin or if inhaled.

Precautionary statements

P261 - Avoid breathing dust, fumes,, gas, mist, vapors, spray.
P264 - Wash skin thoroughly after handling.
P280 - Wear protective gloves and protective clothing.
P301 + P310 + P330 - IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P302 + P352 - IF ON SKIN: Wash with plenty of water.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P311: Call a POISON CENTER or doctor.
P361: Remove all contaminated clothing.
P405 - Store locked up.
P501 - Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification Not classified. Caution - substance is not yet fully tested.

NFPA Rating Not classified. Caution - substance is not yet fully tested.

Potential Health Effects Inhalation - Acute toxicity. Toxic if inhaled. May cause respiratory tract irritation.
Skin - Acute toxicity. Toxic if absorbed through skin. May cause skin irritation.
Eyes - May cause eye irritation.

Ingestion - Acute toxicity. Toxic if swallowed.

Section 3. Composition/Information on Ingredients

Substances	Ingredient: Enniatin B1	Percent: 98-100	
Formula	C ₃₄ H ₅₉ N ₃ O ₉	Formula Wt.	653.86
CAS No.	19914-20-6	EC No.	

Section 4. First Aid Measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
Eye Contact	Flush eyes with water as a precaution.
Skin Contact	Wash off with soap and plenty of water.
Inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Section 5 . Firefighting Measures

Flash Point	Not available.
Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Firefighting Procedures	Wear self-contained breathing apparatus for firefighting if necessary.
Unusual Fire Hazards	Carbon oxides, nitrogen oxides (NOx).

Section 6. Accidental Release Measures

Personal Precautions	Wear respiratory protection. Avoid dust formation. 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 cleanup	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7. Handling and Storage

Handling	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Storage Conditions	Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20°C
Hazardous Decomposition Products	Carbon monoxide (CO). Carbon dioxide (CO ₂) Nitrogen oxides
Other Remarks	

Section 8. Exposure Controls/Personal Protection

Personal protective equipment

EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values.
General industrial hygiene practice.

PERSONAL PROTECTION

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).

Section 9. Physical and Chemical Properties

Physical State	Solid.	Color	White powder.
Boiling Point	Not available.	Volatility	Not available.
Melting Point	Not available.	Density	Not available.
Solubility	Soluble in DMSO, ethanol, methanol and DMF. Insoluble in water.	pH	Not available.
Flash Point	Not available.	Ignition temperature	Not available.
Lower explosion limit	Not available.	Autoignition temperature	Not available.
Upper explosion limit	Not available.	Vapor pressure	Not available.
Water solubility	Insoluble in water.	Odor	Not available.
Partition coefficient: n-octanol/water	Not available.	Odor Threshold	Not available.
Relative vapor density	Not available.	Evaporation rate	Not available.

Section 10. Stability and Reactivity

Stability Stable under recommended storage conditions. May be light-sensitive.

Materials To Avoid Strong oxidizing agents.

Hazardous Decomposition Products Carbon monoxide (CO).
Carbon dioxide (CO₂)
Nitrogen oxides

Possibility of hazardous reactions Not available.

Conditions to avoid Heat, flames and sparks

Section 11. Toxicological Information

Oral LD50 Not available.

Skin corrosion/irritation Skin Toxic if absorbed through skin. May cause skin irritation.

Inhalation LC50 Not available.

Serious eye damage/irritation May cause eye irritation.

Dermal LD50 Not available.

Respiratory or skin sensitization Inhalation Toxic if inhaled. May cause respiratory tract irritation.

Other information on acute toxicity Not available.

Germ cell mutagenicity Not available.

Reproductive Toxicity Not available.

Aspiration Hazard Not available.

Specific organ toxicity single exposure (GHS) Not available.

Synergistic effects Not available.

Specific organ toxicity repeated exposure (GHS) Not available.

Additional Information Not available.

Teratogenicity Not available.

Signs and symptoms of exposure Not available.

Potential Health Effects Inhalation - Acute toxicity. Toxic if inhaled. May cause respiratory tract irritation.
Skin - Acute toxicity. Toxic if absorbed through skin. May cause skin irritation.
Eyes - May cause eye irritation.
Ingestion - Acute toxicity. Toxic if swallowed.

Carcinogenicity **IARC:** This substance is not identified as human carcinogen. This substance is not known to be a Mutagene, Teratogene, and/or Genetoxic.

Section 12. Ecological Information

Toxicity Not available.

Mobility in soil Not available.

PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not

conducted.

Persistence and degradability Not available.

Other adverse effects Not available.

Bioaccumulative potential Not available.

Section 13. Disposal Considerations

Waste Disposal Dispose of material according to all federal, state and local regulations.
Offer material to a licensed, professional waste disposal company to dispose of as unused product.

Section 14. Transport Information

DOT (US) UN number: 3462 Class: 6.1 Packing Group: III
Proper Shipping Name: Toxins, Extracted from living sources, solid, n.o.s.

IATA UN number: 3462 Class: 6.1 Packing Group: III
Proper Shipping Name: Toxins, Extracted from living sources, solid, n.o.s.

IMDG UN number: 3462 Class: 6.1 Packing Group: III
Proper Shipping Name: Toxins, Extracted from living sources, solid, n.o.s.

Further Information

Section 15. Regulatory Information

Reach No.

SARA 302 Components SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Components No SARA hazards.

Massachusetts Right To Know Components No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components Enniatin B1 CAS #: 19914-20-6 Revision Date:

New Jersey Right To Know Components Enniatin B1 CAS #: 19914-20-6 Revision Date:

California Prop 65 Components This product does not contain any chemicals known to the State of California to cause cancer, birth defects or any other reproductive harm.

Section 16. Other Information

Other information The information in this document is believed to be correct but is not necessarily complete. LKT does not guarantee the accuracy of the information. The burden of verifying the information in this document rests solely upon the user.

Updated 7/28/2020

For emergencies in the USA, call
CHEMTREC 800-424-9300