

**Section 1. Product and Company Identification**

Product Name Norepinephrine Bitartrate
Product ID N5766
Chemical Name (Synonyms) Norepinephrine *d*-Bitartrate; Levarterenol bitartrate
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, Oral (Category 2) H300
Acute toxicity, Skin (Category 2) H310
Acute toxicity, Inhalation (Category 1) H330

GHS Label elements including precautionary statements

Pictogram



Signal word Danger

Hazard and precautionary statements

Hazard statements

H300 + H310 - Fatal if swallowed or in contact with skin.
H330 - Fatal if inhaled.

Precautionary statements

P260 - Do not breathe dust, fumes, gas, mist, vapors or spray.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/ protective clothing.
P284 - Wear respiratory protection.
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water.
P310 - Immediately call a POISON CENTER or physician.

HMIS Classification Health hazard: 4
Chronic health hazard: *
Flammability: 0

NFPA Rating Health hazard: 4
Fire: 0
Reactivity hazard: 0

Potential Health Effects Inhalation: May be fatal if inhaled. May cause respiratory tract irritation.
Skin: May be fatal if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Section 3. Composition/Information on Ingredients

Substances

Formula $C_8H_{11}NO_3 \cdot C_4H_6O_6 \cdot H_2O$
CAS No. 108341-18-0

Formula Wt. 337.28
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 Remove contact lenses. Flush eyes with water for a precaution.

Skin Contact Wash with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

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. Contact a physician or poison control immediately.

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 and protective clothing for fire fighting if necessary.

Unusual Fire Hazards Hazardous decomposition products formed under fire conditions. 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. Avoid breathing dust.

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. Normal measures for preventive fire protection.

Storage Conditions Keep container tightly closed in a dry and well-ventilated place. Light sensitive.

Hazardous Decomposition Products Hazardous decomposition products formed under fire conditions. Carbon oxides and nitrogen oxides (NOx). Other decomposition products - Not available.

Other Remarks None.

Section 8. Exposure Controls/Personal Protection

Personal protective equipment

EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values.

PERSONAL PROTECTION

Eye protection: Face shield and safety glasses use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin and 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.

Hand 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.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) 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).

Hygiene measures: Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

Section 9. Physical and Chemical Properties

Physical State	Solid.	Color	White crystal powder.
Boiling Point	Not available.	Volatility	Not available.
Melting Point	102°C - 104°C	Density	Not available.
Solubility	Soluble in water (400 mg/mL). Slightly soluble in ethanol (3mg/mL).	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	Soluble in water (400 mg/mL).	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.

Materials To Avoid Acids, bases, and oxidizing agents.

Hazardous Decomposition Products Hazardous decomposition products formed under fire conditions. Carbon oxides and nitrogen oxides (NOx). Other decomposition products - Not available.

Possibility of hazardous reactions Not available.

Conditions to avoid Not available.

Section 11. Toxicological Information

Oral LD50 Not available.

Skin corrosion/irritation Not available.

Inhalation LC50 Not available.

Serious eye damage/irritation Not available.

Dermal LD50 Not available.

Respiratory or skin sensitization Not available.

Other information on acute toxicity Not available.

Germ cell mutagenicity Not available.

Reproductive Toxicity May cause reproductive disorders. Exposure during pregnancy can provoke uterine contractions which can result in fetal asphyxia.

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 RTECS: Not available.

Teratogenicity Not available.

Signs and symptoms of exposure Cough, shortness of breath, headache, nausea, vomiting, and sweating.

Potential Health Effects Inhalation: May be fatal if inhaled. May cause respiratory tract irritation.
Skin: May be fatal if absorbed through skin. May cause skin irritation.
Eyes: May cause eye irritation.
Ingestion: May be harmful if swallowed.

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.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information

Toxicity Not available.

Mobility in soil Not available.

PBT and vPvB assessment Not available.

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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Dispose of as unused product.

Section 14. Transport Information

DOT (US) UN number: 2811 Class: 6.1 Packing Group: II
Proper shipping name: Toxic solids, organic, n.o.s. (L-(-)-Norepinephrine (+)-bitartrate salt monohydrate)
Marine pollutant: No Poison inhalation Hazard: No

IATA UN number: 2811 Class: 6.1 Packing group: II
Proper shipping name: Toxic solid, organic, n.o.s. (L-(-)-Norepinephrine (+)-bitartrate salt monohydrate)

IMDG UN number: 2811 Class: 6.1 Packing group: II EMS-No: F-A and S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (L-(-)-Norepinephrine (+)-bitartrate salt monohydrate)
Marine pollutant: No

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 Acute health hazard, chronic health hazard.

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

Pennsylvania Right To Know Components L-(-)-Norepinephrine (+)-bitartrate salt monohydrate CAS-No. 108341-18-0 Revision Date:

New Jersey Right To Know Components L-(-)-Norepinephrine (+)-bitartrate salt monohydrate CAS-No. 108341-18-0 Revision Date:

California Prop 65 Components California Prop. 65 Components: This product does not contain any chemicals known to 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 11/14/2018

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