

**Section 1. Product and Company Identification**

<b>Product Name</b>	Methotrexate Hydrate
<b>Product ID</b>	M1676
<b>Chemical Name (Synonyms)</b>	L-(+)-Amethopterin Dihydrate, Amethopterin, MTX, Emtexate, Ledertrexate, Rheumatrex
<b>Supplier</b>	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
<b>Emergency Phone #</b>	1-800-424-9300

**Section 2. Hazards Identification**

<b>GHS Classification</b>	Acute toxicity, Oral (Category 3) H301 Skin irritation (Category 2) H315 Eye irritation (Category 2A) H319 Reproductive toxicity (Category 1B) H360
---------------------------	--

**GHS Label elements including precautionary statements****Pictogram****Signal word** **Danger****Hazard and precautionary statements****Hazard statements**

H301 - Toxic if swallowed.  
H315 - Causes skin irritation.  
H319 - Causes serious eye irritation.  
H360 - May damage fertility or the unborn child.

**Precautionary statements**

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P264 - Wash skin thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P280 - Wear protective gloves/ eye protection/ face protection.  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 - IF exposed or concerned: Get medical advice/ attention.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P330 - Rinse mouth.  
P332 + P313 - If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 - If eye irritation persists: Get medical advice/ attention.  
P362 - Take off contaminated clothing and wash before reuse.  
P405 - Store locked up.  
P501 - Dispose of contents/ container to an approved waste disposal plant.

<b>HMIS Classification</b>	Health hazard: 2 Chronic health hazard: * Flammability: 0 Physical hazard: 0
----------------------------	---

<b>NFPA Rating</b>	Health hazard: 2 Fire hazard: 0 Reactivity hazard: 0
--------------------	--

<b>Potential Health Effects</b>	Inhalation - May be harmful if inhaled. May cause respiratory tract irritation. Skin - May be harmful if absorbed through skin. Causes skin irritation. Eyes - Causes serious eye irritation.
---------------------------------	---

Ingestion - Acute toxicity. Toxic if swallowed.  
Reproductive toxicity - May damage fertility or the unborn child.

---

### Section 3. Composition/Information on Ingredients

<b>Substances</b>	Ingredient: Title Compound	Percent: 100	
<b>Formula</b>	$C_{20}H_{22}N_8O_5 \cdot H_2O$	<b>Formula Wt.</b>	472.45
<b>CAS No.</b>	6745-93-3	<b>EC No.</b>	

---

### Section 4. First Aid Measures

<b>General advice</b>	Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.
<b>Eye Contact</b>	Flush eyes with plenty of water for at least 15 minutes and consult a physician.
<b>Skin Contact</b>	Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.
<b>Inhalation</b>	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

---

### Section 5 . Firefighting Measures

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

---

### Section 6. Accidental Release Measures

<b>Personal Precautions</b>	Wear respiratory protection. Avoid dust formation. Avoid breathing dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
<b>Methods and materials for containment and cleanup</b>	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

---

### Section 7. Handling and Storage

<b>Handling</b>	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs. Provide appropriate exhaust ventilation at places where dust is formed.
<b>Storage Conditions</b>	Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: -20°C
<b>Hazardous Decomposition Products</b>	Not available.
<b>Other Remarks</b>	

---

## Section 8. Exposure Controls/Personal Protection

### Personal protective equipment EXPOSURE CONTROLS

Contains no substances with occupational exposure limit values.  
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

#### 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. Full and splash contact - Material: Nitrile rubber, Minimum layer thickness: 0.11 mm, Break through time: 480 min., Material tested: Dermatrill® (KCL 740 / Aldrich Z677272, Size M).

**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.

**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).

---

## Section 9. Physical and Chemical Properties

<b>Physical State</b>	Solid.	<b>Color</b>	Yellow crystal powder.
<b>Boiling Point</b>	Not available.	<b>Volatility</b>	Not available.
<b>Melting Point</b>	185-204°C(dec.)	<b>Density</b>	Not available.
<b>Solubility</b>	Not soluble in water or ethanol. Soluble in dilute HCl and in alkaline soln.	<b>pH</b>	Not available.
<b>Flash Point</b>	Not available.	<b>Ignition temperature</b>	Not available.
<b>Lower explosion limit</b>	Not available.	<b>Autoignition temperature</b>	Not available.
<b>Upper explosion limit</b>	Not available.	<b>Vapor pressure</b>	Not available.
<b>Water solubility</b>	Insoluble in water.	<b>Odor</b>	Not available.
<b>Partition coefficient: n-octanol/water</b>	Not available.	<b>Odor Threshold</b>	Not available.
<b>Relative vapor density</b>	Not available.	<b>Evaporation rate</b>	Not available.

---

## Section 10. Stability and Reactivity

**Stability** Stable under recommended storage conditions.

**Materials To Avoid** Strong oxidizing agents, strong acids.

**Hazardous Decomposition Products** Not available.

**Possibility of hazardous reactions** Not available.

**Conditions to avoid** Avoid moisture and light.

---

## 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 congenital malformation in the fetus. Presumed human reproductive toxicant.

**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. Blood, irregularities, based on human evidence.

**Teratogenicity** Not available.

**Signs and symptoms of exposure** Symptoms and signs of poisoning are: Nausea, dizziness, headache, changes in the blood count, anemia, drowsiness, gastrointestinal disturbance, vomiting diarrhea, fever, hair loss, mouth ulcers, fatigue, chills, anorexia, blurred vision, increased susceptibility to infections.

**Potential Health Effects** Inhalation - May be harmful if inhaled. May cause respiratory tract irritation. Skin - May be harmful if absorbed through skin. Causes skin irritation. Eyes - Causes serious eye irritation. Ingestion - Acute toxicity. Toxic if swallowed. Reproductive toxicity - May damage fertility or the unborn child.

**Carcinogenicity** This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.  
**IARC: 3** - Group 3: Not classifiable as to its carcinogenicity to humans. (Methotrexate hydrate)  
**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 a 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** 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. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

---

### Section 14. Transport Information

**DOT (US)** UN number: 2811 Class: 6.1 Packing Group: III  
Proper shipping name: Alkaloids, solid, n.o.s. (Methotrexate hydrate)  
Marine pollutant: No Poison inhalation hazard: No

**IATA** UN number: 2811 Class: 6.1 Packing Group: III  
Proper shipping name: Alkaloids, solid, n.o.s. (Methotrexate hydrate)

**IMDG** UN number: 2811 Class: 6.1 Packing Group: III EMS #: F-A, S-A  
Proper shipping name: ALKALOIDS, SOLID, N.O.S. (Methotrexate hydrate)  
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** Methotrexate hydrate CAS #: 6745-93-3 Revision Date: 1993-04-24

**Pennsylvania Right To Know Components** Methotrexate hydrate CAS #: 6745-93-3 Revision Date: 1993-04-24

**New Jersey Right To Know Components** Methotrexate hydrate CAS #: 6745-93-3 Revision Date: 1993-04-24

**California Prop 65 Components** WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.  
Methotrexate hydrate CAS #: 6745-93-3 Revision Date: 2007-09-28

---

### 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** 6/11/2020

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