Section 1. Product and Company Identification

**Product Name**  
Raltitrexed

**Product ID**  
R0245

**Chemical Name**  
LKT Laboratories, Inc

**Supplier**  
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  
Reproductive toxicity (Category 1B) H360

GHS Label elements including precautionary statements

**Pictogram**  

**Signal word**  
Danger

**Hazard and precautionary statements**  

**Hazard statements**  
H300 - Fatal if swallowed.  
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.  
P281 - Use personal protective equipment as required.  
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  
P308 + P313 - IF exposed or concerned: Get medical advice/ attention.  
P321 - Specific treatment (see supplemental first aid instruction on this label).  
P330 - Rinse mouth.  
P405 - Store locked up.  
P501 - Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification  
Health hazard: 3  
Chronic health hazard: *  
Flammability: 0  
Physical hazard: 0

NFPA Rating  
Health hazard: 3  
Fire hazard: 0  
Reactivity hazard: 0

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

Not available.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substances</th>
<th>Ingredient: Title Compound</th>
<th>Percent: 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formula</td>
<td>C_{21}H_{22}N_{4}O_{6}S</td>
<td>Formula Wt. 458.49</td>
</tr>
<tr>
<td>CAS No.</td>
<td>112887-68-0</td>
<td>EC No.</td>
</tr>
</tbody>
</table>

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. 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. 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

Not available.

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.

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: Ambient

Hazardous Decomposition Products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), sulfur oxides.

Other Remarks

Ingestion - Acute toxicity. - Fatal if swallowed.
Reproductive toxicity - May damage fertility or the unborn child.
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: 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 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: Dermatril® (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

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Solid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>White to light yellow powder.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting Point</td>
<td>180-184°C</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>Not available.</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Not available.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>log Pow: 1.69</td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Section 10. Stability and Reactivity

**Stability**

Stable under recommended storage conditions.

**Materials To Avoid**

Strong oxidizing agents.

**Hazardous Decomposition Products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), sulfur oxides.
Section 11. Toxicological Information

**Oral LD50** Not available.

**Inhalation LC50** Not available.

**Dermal LD50** Not available.

**Other information on acute toxicity** Not available.

**Skin corrosion/irritation** Not available.

**Serious eye damage/irritation** Not available.

**Respiratory or skin sensitization** Not available.

**Germ cell mutagenicity** Not available.

**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 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.

**Reproductive Toxicity** 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.

**Signs and symptoms of exposure** Not available.

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

**Teratogenicity** Not available.

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
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 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: Toxic solid, organic, n.o.s. (Raltitrexed)
Poison inhalation hazard: no

IATA UN number: 2811 Class: 6.1 Packing group: III
Proper shipping name: Toxic solid, organic, n.o.s. (Raltitrexed)

IMDG UN number: 2811 Class: 6.1 Packing group: III EMS: F-A, S-A
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Raltitrexed)

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

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

Pennsylvania Right To Know Components Raltitrexed CAS #: 112887-68-0 Revision Date:

New Jersey Right To Know Components Raltitrexed CAS #: 112887-68-0 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.