



## Material Safety Data Sheet L-Tryptophan MSDS

### Section 1: Chemical Product and Company Identification

Distributor: MCKINLEY RESOURCES  
Address: PO Box 810472, Dallas, TX 75381  
Phone Number: 972-620-9730  
Emergency Phone: 800-424-9300 (Chemtrec)

Chemical Name: L-Tryptophan

Chemical Formula: C<sub>11</sub>H<sub>12</sub>N<sub>2</sub>O<sub>2</sub>

### Section 2: Composition and Information on Ingredients

#### Composition:

Name	CAS #	% by Weight
{L-}Tryptophan	73-22-3	100

Toxicological Data on Ingredients: Not applicable.

### Section 3: Hazards Identification

**Potential Acute Health Effects:** Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

**Potential Chronic Health Effects:**

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. Repeated or prolonged exposure is not known to aggravate medical condition.

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## Section 4: First Aid Measures

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**Eye Contact:**

Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.

**Skin Contact:**

Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

**Serious Skin Contact:** Not available.

**Inhalation:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation:** Not available.

**Ingestion:**

Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Ingestion:** Not available.

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## Section 5: Fire and Explosion Data

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**Flammability of the Product:** May be combustible at high temperature.

**Auto-Ignition Temperature:** Not available.

**Flash Points:** Not available.

**Flammable Limits:** Not available.

**Products of Combustion:** These products are carbon oxides (CO, CO<sub>2</sub>), nitrogen oxides (NO, NO<sub>2</sub>...).

**Fire Hazards in Presence of Various Substances:**

Slightly flammable to flammable in presence of heat. Non-flammable in presence of oxidizing materials.

**Explosion Hazards in Presence of Various Substances:**

Slightly explosive in presence of open flames and sparks. Non-explosive in presence of shocks.

**Fire Fighting Media and Instructions:**

SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards:** As with most organic solids, fire is possible at elevated temperatures

**Special Remarks on Explosion Hazards:**

Fine dust dispersed in air in sufficient concentrations, and in the presences of an ignition source is a potential dust explosion hazard.

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## Section 6: Accidental Release Measures

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**Small Spill:**

Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill:**

Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

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## Section 7: Handling and Storage

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**Precautions:**

Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe dust. Wear suitable protective clothing. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.

**Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area.

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## Section 8: Exposure Controls/Personal Protection

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**Engineering Controls:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection:** Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill:**

Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits:** Not available.

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## Section 9: Physical and Chemical Properties

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**Physical state and appearance:** Solid. (Crystalline solid.)

**Odor:** Odorless.

**Taste:** Bitter. (Slight.)

**Molecular Weight:** 204.22 g/mole

**Color:** White. White to yellowish.

**pH (1% soln/water):** 5.5 - 7.0

**Boiling Point:** Not available.

**Melting Point:**

Melting Point: 282 deg. C Decomposition temperature: 289°C (552.2°F)

**Critical Temperature:** Not available.

**Specific Gravity:** Not available.

**Vapor Pressure:** Not applicable.

**Vapor Density:** Not available.

**Volatility:** Not available.

**Odor Threshold:** Not available.

**Water/Oil Dist. Coeff.:** Not available.

**Ionicity (in Water):** Not available.

**Dispersion Properties:** See solubility in water.

**Solubility:**

Soluble in hot water. Partially soluble in cold water. Insoluble in diethyl ether. Slightly soluble in acetic acid. Solubility in water: 0.23 g/l @ 0 deg. C; 11.4 g/l @ 25 deg C; 17.1 g/l @ 50 deg. C; 27.95 g/l @ 75 deg. C; 49.9 g/l @ 100 deg. C Insoluble in chloroform. Soluble in hot alcohol and solutions of dilute acids, and alkali hydroxides.

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### Section 10: Stability and Reactivity Data

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**Stability:** The product is stable.

**Instability Temperature:** Not available.

**Conditions of Instability:** Excess heat, incompatible materials

**Incompatibility with various substances:** Reactive with oxidizing agents, acids.

**Corrosivity:** Non-corrosive in presence of glass.

**Special Remarks on Reactivity:** Protect from light

**Special Remarks on Corrosivity:** Not available.

**Polymerization:** Will not occur.

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### Section 11: Toxicological Information

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**Routes of Entry:** Inhalation. Ingestion.

**Toxicity to Animals:** Acute oral toxicity (LD50): >16000 mg/kg [Rat].

**Chronic Effects on Humans:** MUTAGENIC EFFECTS: Mutagenic for bacteria and/or yeast.

**Other Toxic Effects on Humans:** Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

**Special Remarks on Toxicity to Animals:** Not available.

**Special Remarks on Chronic Effects on Humans:**

May cause adverse reproductive effects based on animal test data. May cause cancer based on animal test data. May affect genetic material (mutagenic)

**Special Remarks on other Toxic Effects on Humans:**

**Acute Potential Health Effects:** Skin: May cause skin irritation. Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: Causes severe initial nausea. May affect behavior/central nervous system (drowsiness, headache, excitement, somnolence, insomnia, muscle weakness, anitaxiety), respiration (acute pulmonary edema), skin (dermatitis). May affect blood and cause L-Tryptophan induced eosinophilia myalgia syndrome. This illness is characterized by musculoskeletal symptoms including myalgias, arthralgias, and paresthesias. The physical findings consist of muscle tenderness, neuropathies, rash, peripheral and periorbital edema, eosinophilia. **Chronic Potential Health Effects:** Ingestion: Prolonged or repeated ingestion may affect the liver, metabolism (weight loss), blood (changes in red blood cell count, eosinophilia), and respiration (dyspena, chronic pulmonary edema), urinary system.

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### Section 12: Ecological Information

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**Ecotoxicity:** Not available.

**BOD5 and COD:** Not available.

**Products of Biodegradation:**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.

**Special Remarks on the Products of Biodegradation:** Not available.

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### Section 13: Disposal Considerations

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**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

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## Section 14: Transport Information

**DOT Classification:** Not a DOT controlled material (United States).

**Identification:** Not applicable.

**Special Provisions for Transport:** Not applicable.

## Section 15: Other Regulatory Information

**Federal and State Regulations:** TSCA 8(b) inventory: L-Tryptophan

**Other Regulations:** EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

**Other Classifications:**

**WHMIS (Canada):** Not controlled under WHMIS (Canada).

**DSCL (EEC):**

This product is not classified according to the EU regulations. S24/25- Avoid contact with skin and eyes.

**HMIS (U.S.A.):**

**Health Hazard:** 1

**Fire Hazard:** 1

**Reactivity:** 0

**Personal Protection:** E

**National Fire Protection Association (U.S.A.):**

**Health:** 1

**Flammability:** 1

**Reactivity:** 0

**Specific hazard:**

**Protective Equipment:**

Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Safety glasses.

## Section 16: Other Information

**References:** Not available.

**Other Special Considerations:** Not available.

**Created:** 10/11/2005 12:50 PM

**Last Updated:** 05/21/2013 12:00 PM

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