

# MATERIAL SAFETY DATA SHEET

Product Name: Pyrazinamide  
MSDS #: L-MSDS7117-3

Page 1 of 5

## Section 1: Product and Company Information

**Product Name:** Pyrazinamide  
**Product Code:** 7116-70  
**Manufacturer:** TREK Diagnostic Systems  
982 Keynote Circle, Suite 6  
Cleveland, OH 44131  
**European:** TREK Diagnostic Systems  
Imberhorne Lane, East Grinstead  
West Sussex, UK, RH19 1QX UK  
Telephone No. 44-1342-318777  
**Phone Number:** (800) 871-8909  
**Fax:** (216) 351-5456  
**24-hour Emergency:** (800) 642-7029

## Section 2: Composition and Ingredient Information

<u>Common Name</u>	<u>Chemical Name</u>	<u>CAS No.</u>	<u>EINECS/ELINCS</u>	<u>Wt.%</u>	<u>Symbol</u>	<u>R-phrases</u>
Pyrazinamide	Pyrazinoic acid amide	98-96-4	202-717-6	28.4	Not available	Not available
Cyclodextrin	Beta-cycloamylose	7585-39-9	231-493-2	71.6	Xn	R22

\* See Section for the full text of the R-phrases declared above.

**Note:** See Section 8 of this MSDS for exposure limit data for these ingredients.

## Section 3: Hazards Identification

**Appearance, Color and Odor:** Solid, white, crystalline, caked powder (freeze-dried)

**Primary Route(s) of Exposure:** Inhalation, ingestion, skin, eyes.

**Potential Health Effects:** **ACUTE (short term):** see Section 8 for exposure controls  
**Inhalation:** May be harmful  
**Ingestion:** May be harmful  
**Skin:** May be harmful  
**Eyes:** May be irritating

**CHRONIC (long term):** see Section 11 for additional toxicological data  
Target organ – liver.

**Medical Conditions Aggravated by Exposure:** Those with preexisting liver disease or at risk for liver-related illness should avoid contact with this material.

# MATERIAL SAFETY DATA SHEET

Product Name: Pyrazinamide  
MSDS #: L-MSDS7117-3

Page 2 of 5

## Section 4: First Aid Measures

- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical advice.
- Eye Contact:** Rinse immediately with plenty of water and seek medical advice.
- Skin Contact:** Wash immediately with plenty of water, and seek medical advice if symptoms arise.
- Ingestion:** Seek medical advice immediately and show this container.

## Section 5: Fire Fighting Measures

- Flash Point and Method (°F):** Not considered to be a fire hazard.
- Flammability Limits (%):** Not applicable.
- Auto Ignition Temperature (°F):** Not applicable.
- Extinguishing Media:** Use appropriate extinguishing media for surrounding material.
- Unusual Fire and Explosion Hazards:** Emits toxic fumes under fire conditions.
- Fire Fighting Instructions:** Wear self-contained breathing apparatus, and protective clothing to prevent contact with eyes and skin.
- Hazardous Combustion Products:** Carbon monoxide, carbon dioxide, nitrogen oxides.

## Section 6: Accidental Release Measures

- Air Release:** Avoid creating dust clouds.
- Land Spill:** While wearing protective equipment, sweep up and place in a container for proper disposal.
- Water Spill:** Not available.

## Section 7: Handling and Storage

- Storage Temperature:** 2 – 8 °C
- Storage Pressure:** Not applicable.
- General:** Keep container tightly closed and store in a cool, dry place.  
Use a chemical fume hood to rehydrate.

## Section 8: Exposure Controls and Personal Protection

<u>Ingredient</u>	<u>ACGIH TLV</u> <u>(8-hr. TWA)</u> <u>(mg/m<sup>3</sup>)</u>	<u>U.S. OSHA PEL</u> <u>(8-hr. TWA)</u> <u>(mg/m<sup>3</sup>)</u>	<u>UK OEL</u> <u>(8-hr. TWA)</u> <u>(mg/m<sup>3</sup>)</u>
Pyrazinamide	Not established	Not established	Not established
Cyclodextrin	Not established	Not established	Not established

## MATERIAL SAFETY DATA SHEET

Product Name: Pyrazinamide  
MSDS #: L-MSDS7117-3

Page 3 of 5

**Engineering Controls:** Provide general and/or local exhaust ventilation to control airborne concentrations below the recommended exposure guideline.

**Personal Protection:**

**Respiratory Protection:** Use a NIOSH/MSHA approved respirator to protect from dust exposures.

**Skin Protection:** Chemical resistant gloves and body-covering clothing to prevent contact. Nitrile or neoprene gloves recommended.

**Eye Protection:** Safety goggles.

**Other:** None.

### Section 9: Physical and Chemical Properties

<b><u>Physical State:</u></b>	Solid	<b><u>Vapor Pressure:</u></b> <b><u>(mm Hg @ 20°C)</u></b>	Not applicable.
<b><u>Appearance:</u></b>	White, crystalline, caked powder (freeze-dried)	<b><u>Vapor Density:</u></b> <b><u>(Air = 1)</u></b>	Not applicable.
<b><u>pH:</u></b>	7.0-8.5 when rehydrated with 25 ml of water	<b><u>Solubility in Water:</u></b>	Not available.
<b><u>Specific Gravity:</u></b> <b><u>(water = 1)</u></b>	Not applicable.	<b><u>Water / Oil distribution coefficient:</u></b>	Not available.
<b><u>Boiling Point:</u></b>	Not applicable.	<b><u>Odour Type:</u></b>	Odourless.
<b><u>Freezing Point:</u></b>	Not applicable.	<b><u>Evaporation Rate:</u></b> <b><u>(n-Butyl Acetate = 1)</u></b>	Not applicable.
<b><u>Viscosity:</u></b>	Not applicable.	<b><u>Other:</u></b>	Completely soluble in PZA Rehydration Buffer

### Section 10: Stability and Reactivity

<b><u>Stability:</u></b>	Stable.
<b><u>Incompatible Materials and Conditions to Avoid:</u></b>	Strong oxidizing agents.
<b><u>Hazardous Decomposition Products:</u></b>	Carbon monoxide, carbon dioxide, nitrogen oxides.
<b><u>Hazardous Polymerization:</u></b>	Will not occur.
<b><u>Other Reactivity Concerns:</u></b>	None.

# MATERIAL SAFETY DATA SHEET

Product Name: Pyrazinamide  
MSDS #: L-MSDS7117-3

Page 4 of 5

## Section 11: Toxicological Information

**Carcinogenicity:** The table below indicates whether or not each agency has listed each ingredient as a carcinogen.

<u>Ingredient</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
Pyrazinamide	Not listed	Not listed	Not listed	Not listed
Cyclodextrin	Not listed	Not listed	Not listed	Not listed

<u>Ingredient</u>	<u>LD<sub>50</sub> Oral</u> (mg/kg)	<u>LD<sub>50</sub> Dermal</u> (mg/kg)	<u>LC<sub>50</sub> Inhalation</u> (mg/m <sup>3</sup> , 4 hrs.)
Pyrazinamide	Not available	Not available	Not available
Cyclodextrin	18 800 (rat)	Not available	Not available

## Section 12: Ecological Information

The ecological effects have not been thoroughly investigated, but currently none have been identified.

## Section 13: Disposal Considerations

**Waste Disposal Method:** Dispose of in accordance with local, state and federal regulations.

## Section 14: Transport Information

**DOT Proper Shipping Name:** Not regulated  
**DOT Hazard Classification:** Primary: Not regulated  
Secondary:  
**DOT Special Provisions:** None  
**DOT Packaging Exceptions:** None  
**DOT Non-bulk Packaging:** None  
**DOT Bulk Packaging:** None  
**IMDG Proper Shipping Name:** Not regulated  
**IATA Proper Shipping Name:** Not regulated

# MATERIAL SAFETY DATA SHEET

Product Name: Pyrazinamide  
MSDS #: L-MSDS7117-3

Page 5 of 5

## Section 15: Regulatory Information

**TSCA Status:** Exempt under TSCA

**California Proposition 65:** None

**SARA Title III:**

Sec. 302/304: None

Sec. 313: None

**Right to Know:** None

**EC Directive:** The product is classified as dangerous according to Directive 1999/45/EC and its amendments.



Xn Harmful

R22 Harmful if swallowed.

S20 When using, do not eat or drink.

S36 Wear suitable protective clothing.

S46 If swallowed, seek medical advice immediately & show container / label.

**Other:** None.

## Section 16: Other Information

### **HMIS and NFPA Hazard Rating:**

Category	HMIS	NFPA
Acute Health	2	2
Flammability	0	0
Reactivity	0	0

**Full Text of R-phrases appearing in Section 2:** R22 – Harmful if swallowed

**Text of classifications appearing in Section 2:** Xn - Harmful

### **Preparation Information:**

**Prepared by:** LEHDER Environmental Services Limited

**Address:** 704 Mara Street, Suite 210  
Point Edward, Ontario  
N7V 1X4

**Phone:** (519) 336-4101

**Preparation date:** September 23, 1999; Revised to reflect new TREK address November 7, 2002.  
Revised and Updated July 24, 2003 for regulatory information.

**Disclaimer:** While LEHDER Environmental Services Limited believes that the data set forth herein is accurate, as of the date hereof, LEHDER makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation and verification.