

# MATERIAL SAFETY DATA SHEET

Product Name: Isoniazid  
MSDS #:L-MSDS7119-4

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## Section 1: Product and Company Information

**Product Name:** Isoniazid

**Product Code:** 7115-60

**Manufacturer:** TREK Diagnostic Systems  
982 Keynote Circle, Suite 6  
Cleveland, OH 44131  
USA

**European:** TREK Diagnostic Systems  
Unit 17-19  
Birches Industrial Estate  
East Grinstead

**Phone Number:** (800) 871-8909

**Fax:** (216) 351-5456

**24-hour Emergency:** (800) 642-7029

West Sussex, RH19 1XZ

UK

Telephone No. 44-1342-318777

## 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>
Isoniazid	4-Pyridinecarboxylic hydrazide	54-85-3	200-214-6	0.1	Xn	R22, R33
Cyclodextrin	Beta-cycloamylose	7585-39-9	231-493-2	99.9	Xn	R22

\* See Section 16 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 cause irritation.

**Ingestion:** May be harmful.

**Skin:** Allergic reaction may occur in sensitive individuals.

**Eyes:** May cause irritation.

**CHRONIC (long term):** see Section 11 for additional toxicological data

Target organs – liver, nerves. Can cause severe liver damage including hepatitis.

IARC has classified Isoniazid under Group 3 – Unclassifiable as to carcinogenicity to humans

Laboratory experiments on isoniazid have shown mutagenic effects. Isoniazid has been reported to induce pulmonary tumors in a number of strains of mice.

**Medical Conditions Aggravated by Exposure:** None known.

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## 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:** Completely soluble in water.

## 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 control dust.

## Section 8: Exposure Controls and Personal Protection

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

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### 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 water.	<b><u>Solubility in Water:</u></b>	Completely soluble in water.
<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>	Melting point: 260 °C.

### Section 10: Stability and Reactivity

<b><u>Stability:</u></b>	Stable.
<b><u>Incompatible Materials and Conditions to Avoid:</u></b>	Incompatible with 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.

### Section 11: Toxicological Information

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

<b><u>Ingredient</u></b>	<b><u>ACGIH</u></b>	<b><u>IARC</u></b>	<b><u>NTP</u></b>	<b><u>OSHA</u></b>
Isoniazid	Not listed	3	Not listed	Not listed
Cyclodextrin	Not listed	Not listed	Not listed	Not listed

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<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.)
Isoniazid	1250 (rat)	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

## 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 it's 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.

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## Section 16: Other Information

### HMIS and NFPA Hazard Rating:

Category	HMIS	NFPA
Acute Health	1	1
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:

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Preparation date: September 23, 1999. Revised November 7, 2002 by TREK to update TREK USA address. Revised July 18, 2003 by TREK to update regulatory information. Revised August 14, 2010 by TREK to update TREK UK address.

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