

# MATERIAL SAFETY DATA SHEET

Product Name: Isoniazid  
MSDS #:L-MSDS7119-3

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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  
**Phone Number:** (800) 871-8909  
**Fax:** (216) 351-5456  
**24-hour Emergency:** (800) 642-7029

**European:** TREK Diagnostic Systems  
Imberhorne Lane, East Grinstead  
West Sussex, UK, RH19 1QX 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</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>
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> (mm Hg @ 20°C)</b>	Not applicable.
<b><u>Appearance:</u></b>	White, crystalline, caked powder (freeze-dried).	<b><u>Vapor Density:</u> (Air = 1)</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> (water = 1)</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> (n-Butyl Acetate = 1)</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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