

## SAFETY DATA SHEET

Preparation Date: 11/6/2017

Revision Date: 11/6/2017

Revision Number: G1

### 1. IDENTIFICATION

#### Product identifier

**Product code:** T1352  
**Product Name:** TINIDAZOLE, USP

#### Other means of identification

**Synonyms:** Ethyl (2-(2-methyl-5-nitro-1-imidazolyl)ethyl)sulfone  
 Tinidazol

**CAS #:** 19387-91-8  
**RTECS #** NI6255000  
**CI#:** Not available

#### Recommended use of the chemical and restrictions on use

**Recommended use:** Medication.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300

**Contact Person:** Martin LaBenz (West Coast)

**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

#### Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Germ cell mutagenicity	Category 2
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#### Label elements

##### **Warning**

##### **Hazard statements**

Suspected of causing genetic defects

**Hazards not otherwise classified (HNOC)**

Not Applicable

**Other hazards**

May be harmful if swallowed

**Precautionary Statements - Prevention**

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response***IF exposed or concerned: Get medical advice/attention***Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Components	CAS-No.	Weight %
Tinidazole	19387-91-8	100

**4. FIRST AID MEASURES****First aid measures****General Advice:**

National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

**Skin Contact:**

Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

**Eye Contact:**

Flush eyes with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

**Inhalation:**

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

**Ingestion:**

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

**Most important symptoms and effects, both acute and delayed****Symptoms**

May cause eye/skin irritation  
Abdominal discomfort, nausea, vomiting, cramping  
May cause constipation  
May cause dyspepsia  
May cause anorexia  
Dryness of mouth

Thirst  
May cause metallic taste  
Fatigue  
Weakness  
May cause drowsiness or dizziness  
May cause headache  
Ataxia  
Convulsions  
Seizures  
Peripheral neuropathy  
Paresthesia (numbness and tingling of the extremities)  
It may affect the kidneys  
Heart palpitations

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically.

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water spray mist or foam.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:** Carbon Monoxide, Carbon Dioxide. Nitrogen Oxides. Sulfur Oxides.

**Specific hazards:** May be combustible at high temperatures.

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Remove all sources of ignition.

**Environmental precautions** Prevent further leakage or spillage. Prevent product from entering drains. Prevent entry into waterways, sewers.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Avoid dust formation. Do not ingest. Do not breathe dust. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed. Store at controlled room temperature. "Controlled Room Temperature" is 20-25 °C (68-77 °F). Excursions between 15°C/59°F and 30°C/86°F that are experienced in pharmacies, hospitals, and warehouses and during shipping are allowed. Provided the mean kinetic temperature does not exceed 25°C, transient spikes up to 40°C are permitted as long as they don't exceed 24 h. An article for which the storage at "Controlled Room Temperature" is directed, may, alternatively, be stored and shipped in a cool place or refrigerated, unless otherwise specified in the individual monograph. Protect from light. Sensitive to light. Store in light-resistant containers. Store away from incompatible materials.

#### **Incompatible Materials:**

Strong oxidizing agents

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Tinidazole	19387-91-8	None	None	None	None

##### **Canada**

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Tinidazole	19387-91-8	None	None	None	None

## Australia and Mexico

Components	CAS-No.	Australia	Mexico
Tinidazole	19387-91-8	None	None

### Appropriate engineering controls

**Engineering measures to reduce exposure:** Ensure adequate ventilation. 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.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

**Eye protection:** Safety glasses with side-shields or Goggles

**Skin and body protection:** Long sleeved clothing  
Chemical resistant apron  
Gloves

**Respiratory protection:** Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds) , inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid	<b>Appearance:</b> No information available.	<b>Color:</b> White.
<b>Odor:</b> Odorless.	<b>Taste</b> No information available.	<b>Formula:</b> C8H13N3O4S
<b>Molecular/Formula weight:</b> 247.28	<b>Flammability:</b> No information available	<b>Flashpoint (°C/°F):</b> No information available.
<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available	<b>Lower Explosion Limit (%):</b> No information available
<b>Upper Explosion Limit (%):</b> No information available	<b>Melting point/range(°C/°F):</b> 125-128 °C/257-262.4 °F	<b>Decomposition temperature(°C/°F):</b> No information available
<b>Boiling point/range(°C/°F):</b> No information available	<b>Bulk density:</b> No information available	<b>Density (g/cm3):</b> No information available
<b>Specific gravity:</b> 1.4	<b>pH:</b> No information available	<b>Vapor pressure @ 20°C (kPa):</b> No information available
<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available	<b>VOC content (g/L):</b> No information available

**Product code:** T1352

**Product name:** TINIDAZOLE, USP

**Odor threshold (ppm):**  
No information available

**Partition coefficient  
(n-octanol/water):**  
3.04

**Viscosity:**  
No information available

**Miscibility:**  
No information available

**Solubility:**  
Soluble in Water  
Solubility in Water: 20 g/L @ 25°C

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with oxidizing agents  
Reacts with strong bases

### Chemical stability

**Stability:** Stable under recommended storage conditions.

**Possibility of Hazardous Reactions:** Hazardous polymerization does not occur

**Conditions to avoid:** Heat. Avoid dust formation. Exposure to light. Incompatible materials.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous decomposition products:** Carbon monoxide. Carbon dioxide.

### Other Information

**Corrosivity:** No information available

**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**  
Ingestion. Inhalation.

### Acute Toxicity

### Component Information

Tinidazole
CAS-No.   19387-91-8

**LD50/oral/rat** = 2710 mg/kg Oral LD50 Rat  
**LD50/oral/mouse** = 3200 mg/kg  
**LD50/dermal/rabbit** = No information available  
**LD50/dermal/rat** = No information available  
**LC50/inhalation/rat** = No information available  
**LC50/inhalation/mouse** = No information available  
**Other LD50 or LC50 information** = No information available

### Product Information

**LD50/oral/rat** =

**Product code:** T1352

**Product name:** TINIDAZOLE, USP

VALUE- Acute Tox Oral = 2710 mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = 3200 mg/kg

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

### Symptoms

**Skin Contact:** May cause skin irritation.

**Eye Contact:** May cause eye irritation.

**Inhalation** May cause irritation of respiratory tract.

**Ingestion** Ingestion may cause nausea, vomiting. May cause dyspepsia. May cause abdominal pain. May cause constipation. May cause anorexia. May cause metallic taste. May cause dry mouth, thirst. May cause stomatitis. May affect urinary system (kidneys). May affect behavior/central nervous system (dizziness, headache). May affect behavior/central nervous system (ataxia). It may affect behavior/central nervous system (drowsiness). May affect behavior/central nervous system (convulsions/seizures). May affect behavior/central nervous system (fatigue, weakness). May affect the peripheral nervous system ( peripheral neuropathy with paresthesia - a tingling, pricking, or numbness of the skin (known as the feeling of "pins and needles" generally of the hands and feet (extremities)),. May affect the cardiovascular system (palpitations).

**Aspiration hazard** No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Chronic Toxicity** No information available.

**Sensitization:** No information available.

**Mutagenic Effects:** Suspected of causing genetic defects  
Mutations in microorganisms  
Experiments with bacteria and/or yeast have shown mutagenic effects  
Cytogenetic Analysis: human lymphocyte  
Sister Chromatid Exchange (human lymphocyte)

**Carcinogenic effects:** Not considered carcinogenic.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic	Australia - Prohibited Carcinogenic
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						<b>Substances</b>	<b>Substances</b>
Tinidazole	19387-91-8	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** No information available.  
**STOT - repeated exposure** No information available.  
**Target Organs:** No information available.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** No data available.

**Persistence and degradability:** No information available

**Bioaccumulative potential:** Potential for bioconcentration in aquatic organisms is low.

**Mobility:** It is expected to have high mobility in soil.

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

**Waste from residues / unused products:**  
Waste must be disposed of in accordance with Federal, State and Local regulation.

**Contaminated packaging:**  
Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Tinidazole	19387-91-8	None	None	None	None

**14. TRANSPORT INFORMATION**

**DOT**

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Class** No information available  
**Packing group:** No information available  
**Emergency Response Guide** No information available



**Number**  
**Marine Pollutant**  
**DOT RQ (lbs):**  
**Special Provisions**  
**Symbol(s):**  
**Description:**

No data available  
 No information available  
 No Information available  
 No information available  
 No information available

**TDG (Canada)**

**UN-No:**  
**Proper Shipping Name:**  
**Hazard Class:**  
**Subsidiary Risk:**  
**Packing Group:**  
**Marine Pollutant**  
**Description:**

Not Regulated  
 No information available  
 No information available  
 No information available  
 No information available  
 No Information available  
 No information available

**ADR**

**UN-No:**  
**Proper Shipping Name:**  
**Hazard Class:**  
**Packing Group:**  
**Subsidiary Risk:**

Not Regulated  
 No information available  
 No information available  
 No information available  
 No information available

**IMO / IMDG**

**UN-No:**  
**Proper Shipping Name:**  
**Hazard Class:**  
**Subsidiary Risk:**  
**Packing Group:**  
**Marine Pollutant**

Not Regulated  
 No information available  
 No information available  
 No information available  
 No information available  
 No information available

**RID**

**UN-No:**  
**Proper Shipping Name:**  
**Hazard Class:**  
**Subsidiary Risk:**  
**Packing Group:**

Not Regulated  
 No information available  
 No information available  
 No information available  
 No information available

**ICAO**

**UN-No:**  
**Proper Shipping Name:**  
**Hazard Class:**  
**Subsidiary Risk:**  
**Packing Group:**

Not Regulated  
 No information available  
 No information available  
 No information available  
 No information available

**IATA**

**UN-No:**  
**Proper Shipping Name:**  
**Hazard Class:**  
**Subsidiary Risk:**  
**Packing Group:**  
**ERG Code:**  
**Special Provisions**

Not Regulated  
 No information available  
 No information available  
 No information available  
 No information available  
 No information available  
 No information available

**15. REGULATORY INFORMATION**

**International Inventories**

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines	Japan ENCS	CHINA	Australia	EINECS-No.
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				(PICCS)			(AICS)	
Tinidazole	19387-91-8	Not Listed	Present KE-14058	Not present	Not present	Not present	Present	Present 243-014-4

## U.S. Regulations

### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Tinidazole	19387-91-8	Not Listed	Not Listed	Not Listed	Not Listed

## CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Tinidazole	19387-91-8	None	None	None	None	None

## U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Tinidazole	19387-91-8	Not Applicable	Not Applicable

## Canada

### WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification Information:

The WHMIS 2015 classification of this product has not been validated or reviewed yet.

**Canada Hazardous Products Regulation** This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

### WHMIS 1988 Hazard Class

D2B Toxic materials

### Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

## Inventory

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Tinidazole	19387-91-8	Not Listed	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Tinidazole	19387-91-8	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject

Product code: T1352

Product name: TINIDAZOLE, USP

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		to Mandatory Reporting
Tinidazole	19387-91-8	Not listed

### EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Tinidazole	19387-91-8	

EU - CLP (1272/2008)

### R-phrase(s)

Not determined

### S -phrase(s)

none

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Tinidazole	19387-91-8		No information	

**The product is classified in accordance with Annex VI to Directive 67/548/EEC**

### Indication of danger:

not determined

## 16. OTHER INFORMATION

Preparation Date: 11/6/2017  
Revision Date: 11/6/2017  
Prepared by: Sonia Owen

### Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**