



**KIMYAGARAN**  
Emrooz  
Chemical Industries Co.

## **Safety Data Sheet**

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Metronidazole

**Product Description:** 1-( $\beta$ -hydroxyethyl)-2-methyl-5- nitroimidazole

**CAS No.:** 443-48-1

**Chemical Family:** Nitro Imidazole

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## 2. HAZARDS IDENTIFICATION

### Potential Acute Health Effects:

Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of inhalation. Hazardous in case of ingestion. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

### Potential Chronic Health Effects:

Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of inhalation. Hazardous in case of ingestion. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.

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## 3. COMPOSITION

Chemical Name	Wt.%	CAS No.
Metronidazole	99-101	443-48-1

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## 4. FIRST AID MEASURES

**Eye Contact:** Check for and remove contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyes open. Cold water may be used. Do not use an eye ointment. Get medical attention immediately.

**Skin Contact:** In case of contact wash immediately with plenty of water. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Remove contaminated clothes and shoes. Wash clothing and shoes thoroughly before re-using.

**Inhalation:** If inhaled, remove to fresh air. Get medical attention.



**Ingestion:** If swallowed, do not induce vomiting. If victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention immediately.

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## 5. FIRE-FIGHTING MEASURES

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

**Flash Point** (Method Used): Not Available

**Extinguishing Methods:** Small Fire: Use DRY chemical powder.

Large Fire: Use water, fog or foam. Do not use water jet.

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## 6. ACCIDENTAL RELEASE MEASURES

**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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## 7. HANDLING AND STORAGE

**Precautions:** Keep away from heat. Keep away from sources of ignition. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

**Storage:** Keep in cool ventilated area out of reach of children. Keep container tightly closed and sealed until ready to use.

**Personal Protection:** Safety glasses, lab coat and gloves (impervious). Wear appropriate respirator when ventilation is inadequate.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Respiratory Protection:** Respiratory protection is not needed during normal product use.

**Skin Protection:** If solution contact with unprotected skin is likely, use of impervious gloves is a prudent practice.

**Ventilation:** Handle product in a well-ventilated area.

**Eye Protection:** Eye protection is not required during expected product use conditions but may be warranted should a splash potential exist.

**Other Protective Clothing or Equipment:** Lab coat

**Work/Hygienic Practices:** Wash hands following use. No eating, drinking, or smoking when handling this product.

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Hand Chemical resistant gloves required for prolonged or repeated contact. Eyes Wear tightly fitting safety goggles.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state and appearance:** Solid (Powdered solid)

**Odor:** Slight

**Taste:** Bitter

**Molecular Weight:** 171.2 g/mole

**Color:** White to yellowish.

**pH (1% soln/water):** 7 [Neutral]

**Boiling Point:** Not available.

**Melting Point:** 159°C

**Solubility:** Very slightly soluble in hot water

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## 10. STABILITY AND REACTIVITY

**Stability:** The product is stable.

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

**Polymerization:** No.

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## 11. TOXICOLOGICAL INFORMATION

No information available at this time.

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## 12. ECOLOGICAL INFORMATION

No information available.

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## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal:** Disposal should be performed in accordance with local regulatory requirements.

**Container Handling and Disposal:** Dispose of container and unused contents in accordance with local regulations.

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## 14. TRANSPORT INFORMATION

It is not classified as a dangerous substance for transport.

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**UN No.:** Not Allocated

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## 15. REGULATORY INFORMATION

metronidazole (CAS: 443-48-1) is found on the following regulatory lists; "Canada CEPA Environmental Registry Substance Lists - Other DSL substances that are priorities for human health (English)", "Canada Domestic Substances List (DSL)", "Canada Substances In Products Regulated Under the Food and Drugs Act (F&DA) That Were In Commerce In Canada Between January 1, 1984 and December 31, 1986 (English)", "Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (English)", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "US - California Air Toxics ""Hot Spots"" List (Assembly Bill 2588) Substances Which Need Not Be Reported Unless Manufactured By the Facility", "US - California Occupational Safety and Health Regulations (CAL/OSHA) - Hazardous Substances List", "US - California Proposition 65 - Carcinogens", "US - California Proposition 65 - Priority List for the Development of NSRLs for Carcinogens", "US - Connecticut Hazardous Air Pollutants", "US - Maine Chemicals of High Concern List", "US - Minnesota Hazardous Substance List", "US - New Jersey Right to Know Hazardous Substances", "US - Pennsylvania - Hazardous Substance List", "US - Rhode Island Hazardous Substance List", "US FDA Maximum Recommended Therapeutic Dose (MRTD) Database", "US National Toxicology Program (NTP) 11th Report Part B. Reasonably Anticipated to be a Human Carcinogen"

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## 16. OTHER INFORMATION

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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## Caution

**The information contained in this Material Safety Data Sheet (MSDS) is believed to be correct since it was obtained from sources we believe are reliable. However no representation, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications, hazards connected with the use of the material, or the results to be obtained from the use thereof. User assumes all risks and liability of any use, processing or handling of any material, variations in methods, conditions and equipment used to store, handle, or process the material and hazards connected with the use of the material are solely the responsibility of the user and remain at his sole discretion.**