

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)  
Classifications according to Regulation (EC) No 1272/2008.  
Printdate 11 Jan 2024

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product name:

Metronidazole

### 1.1. Catalog No.:

672963

### 1.2. Relevant identified uses of the substance or mixture

Identified: Laboratory chemical  
uses: R&D

### 1.3. Uses advised against:

HPC Standards GmbH  
Am Wieseneck 7

04451 Cunnersdorf  
Deutschland

Tel. +49 34291 3372-36  
Fax. +49 34291 3372-39  
contact@hpc-standards.com

### 1.4. Emergency telephone number

HPC Standards Tel. +49 34291 3372-36  
This number is only available during office hours.

## 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture  
Classification according to Regulation (EC) No 1272/2008  
Carcinogenicity (Category 2), H351 Classification according to EU Directives 67/548/EEC or 1999/45/EC  
Xn Harmful R40

### 2.2. Label elements

#### 2.2.1. Pictogram



#### 2.2.2.

Signal word Warning  
Hazard statement(s)  
H351 Suspected of causing cancer.  
Precautionary statement(s)  
P281 Use personal protective equipment as required.

Supplemental Hazard  
Statements  
None 2.3 Other hazards - none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Synonyms : 2-Methyl-5-nitroimidazole-1-ethanol

Formula : C<sub>6</sub>H<sub>9</sub>N<sub>3</sub>O<sub>3</sub>

Molecular Weight : 171,15 g/mol

CAS-No. : 443-48-1

EC-No. : 207-136-1

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component Classification Concentration

Metronidazole

Carc. 2; H351 -

Hazardous ingredients according to Directive 1999/45/EC

Component Classification Concentration

Metronidazole

Xn, R40 -

#### 3.1.1. Formula

C<sub>6</sub>H<sub>9</sub>N<sub>3</sub>O<sub>3</sub>

#### 3.1.2. Molecular Weight (g/mol)

171.15

#### 3.1.3. CAS-No.

443-48-1

#### 4. FIRST AID MEASURES

##### 4.1 Description of first aid measures

###### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

###### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

###### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

###### In case of eye contact

Flush eyes with water as a precaution.

###### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

##### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

##### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

#### 5. FIRE-FIGHTING MEASURES

##### 5.1 Extinguishing media

###### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### 5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx)

##### 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

##### 5.4 Further information

no data available

#### 6. ACCIDENTAL RELEASE MEASURES

##### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

##### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

##### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

##### 6.4 Reference to other sections

For disposal see section 13.

#### 7. HANDLING AND STORAGE

##### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: 2 - 8 &deg;C

7.3 Specific end use(s)

A part from the uses mentioned in section 1.2 no other specific uses are stipulated

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

Components with workplace control parameters

### 8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Wash and dry Hands, Body Protection

impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

a) Appearance Form: crystalline

Colour: light yellow

b) Odour no data available

c) Odour Threshold no data available

d) pH no data available

e) Melting point/freezing

point

Melting point/range: 159 - 161 &deg;C - lit.

f) Initial boiling point and

boiling range

no data available

g) Flash point no data available

h) Evaporation rate no data available

i) Flammability (solid, gas) no data available

j) Upper/lower

flammability or

explosive limits

no data available

k) Vapour pressure no data available

l) Vapour density no data available

m) Relative density no data available

n) Water solubility no data available

- o) Partition coefficient: noctanol/  
water  
no data available
  - p) Auto-ignition  
temperature  
no data available
  - q) Decomposition  
temperature  
no data available
  - r) Viscosity no data available s) Explosive properties no data available
  - t) Oxidizing properties no data available
- 9.2 Other safety information  
no data available

## 10. STABILITY AND REACTIVITY

- 10.1 Reactivity  
no data available
- 10.2 Chemical stability  
Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions  
no data available
- 10.4 Conditions to avoid  
no data available
- 10.5 Incompatible materials  
Strong oxidizing agents
- 10.6 Hazardous decomposition products  
Other decomposition products - no data available  
In the event of fire: see section 5

## 11. TOXICOLOGICAL INFORMATION

- 11.1 Information on toxicological effects  
Acute toxicity  
LD50 Oral - rat - 3.000 mg/kg  
Remarks: Behavioral: Somnolence (general depressed activity). Cyanosis Nutritional and Gross  
Metabolic: Changes in: Body temperature decrease.  
Skin corrosion/irritation  
no data available  
Serious eye damage/eye irritation  
no data available  
Respiratory or skin sensitisation  
no data available  
Germ cell mutagenicity  
no data available  
Carcinogenicity  
This product is or contains a component that has been reported to be possibly carcinogenic based on its  
IARC, ACGIH, NTP, or EPA classification.  
Limited evidence of carcinogenicity in animal studies  
IARC: 2B - Group 2B: Possibly carcinogenic to humans (Metronidazole)  
Reproductive toxicity  
no data available  
Specific target organ toxicity - single exposure  
no data available  
Specific target organ toxicity - repeated exposure  
no data available  
Aspiration hazard  
no data available  
Additional Information  
RTECS: NI5600000  
Paresthesia., To the best of our knowledge, the chemical, physical, and toxicological properties have not

been thoroughly investigated

## 12. ECOLOGICAL INFORMATION

- 12.1 Toxicity
  - Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96 h mortality NOEC - Danio rerio (zebra fish) - 500 mg/l - 96 h
  - Toxicity to daphnia and other aquatic invertebrates
  - EC50 - Daphnia magna (Water flea) - > 1.000 mg/l - 48 h
- 12.2 Persistence and degradability
  - no data available
- 12.3 Bioaccumulative potential
  - no data available
- 12.4 Mobility in soil
  - no data available
- 12.5 Results of PBT and vPvB assessment
  - PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
- 12.6 Other adverse effects
  - no data available

## 13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods
  - Product
  - Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
  - Contaminated packaging
  - Dispose of as unused product

## 14. TRANSPORT INFORMATION

- 14.1 UN number
  - ADR/RID: - IMDG: - IATA: -
- 14.2 UN proper shipping name
  - ADR/RID: Not dangerous goods
  - IMDG: Not dangerous goods
  - IATA: Not dangerous goods
- 14.3 Transport hazard class(es)
  - ADR/RID: - IMDG: - IATA: -
- 14.4 Packaging group
  - ADR/RID: - IMDG: - IATA: -
- 14.5 Environmental hazards
  - ADR/RID: no IMDG Marine pollutant: no IATA: no
- 14.6 Special precautions for user
  - no data available

## 15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
no data available

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

## 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. For lab use only!