# MATERIAL SAFETY DATA SHEET

## 3-METHYL 2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE
**CAS No 38894-11-0**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers
- **Product name**: 3-Methyl-2-benzothiazolinone hydrazone hydrochloride
- **CAS-No.**: 38894-11-0

### 1.2 Relevant identified uses of the substance or mixture and uses advised against
- **Identified uses**: Laboratory chemicals, Industrial & for professional use only.

### 1.3 Details of the supplier of the safety data sheet
- **Company**: Central Drug House (P) Ltd
  7/28 Varadaan House
  New Delhi -110002
  INDIA
- **Telephone**: +91 11 49404040
- **Email**: care@cdhfinechemical.com

### 1.4 Emergency telephone number
- **Emergency Phone #**: +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture
**Classification according to Regulation (EC) No 1272/2008**
- **Acute toxicity, Oral (Category 3)**, H301
- **Eye irritation** (Category 2), H319

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 Label elements
**Labelling according Regulation (EC) No 1272/2008**

- **Pictogram**

- **Signal word**: Danger

- **Hazard statement(s)**
  - H301: Toxic if swallowed.
  - H319: Causes serious eye irritation.

- **Precautionary statement(s)**
2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1 Substances
Synonyms: 2-Hydrazone-3-methylbenzothiazoline

Formula: C₈H₉N₃S · HCl · H₂O
Molecular weight: 233.72 g/mol
CAS-No.: 38894-11-0
EC-No.: 238-428-7

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

Component | Classification | Concentration |
---|---|---|
3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate | Acute Tox. 3; Eye Irrit. 2 | <= 100 % |
CAS-No. | 38894-11-0 | |
EC-No. | 238-428-7 | H301, H319 |

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 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. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

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

SECTION 5: Firefighting 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), Sulphur oxides, Hydrogen chloride gas

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. 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.

SECTION 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. Storage class (TRGS 510): Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection
Face shield and safety glasses 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
Complete suit protecting against chemicals. 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 (EN 143) respirator cartridges as a backup to engineering controls. If th 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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form: crystalline
   Colour: beige
b) Odour No data available
c) Odour Threshold No data available
d) pH No data available
e) Melting point/freezing point Melting point/range: 270 - 274 °C
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: n-octanol/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
SECTION 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
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx), Sulphur oxides, Hydrogen chloride gas
Other decomposition products: No data available
In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity
LD50 Oral - Rat - 149.0 mg/kg(3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)
LD50 Dermal - Rabbit - 12,300 mg/kg(3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

Skin corrosion/irritation
No data available(3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

Serious eye damage/eye irritation
Eyes - Rabbit(3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)
Result: Moderate eye irritation

Respiratory or skin sensitisation
No data available(3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

Germ cell mutagenicity
No data available(3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available(3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

Specific target organ toxicity - single exposure
No data available(3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)
Specific target organ toxicity - repeated exposure  
No data available

Aspiration hazard  
No data available (3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

Additional Information  
RTECS: DL7160200

SECTION 12: Ecological information

12.1 Toxicity  
No data available

12.2 Persistence and degradability  
No data available

12.3 Bioaccumulative potential  
No data available

12.4 Mobility in soil  
No data available (3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

12.5 Results of PBT and vPvB assessment  
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects  
No data available

SECTION 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 chem scrubber.

Contaminated packaging  
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number  
ADR/RID: 2811  
IMDG: 2811  
IATA: 2811

14.2 UN proper shipping name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

IMDG:  
TOXIC SOLID, ORGANIC, N.O.S. (3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

IATA:  
Toxic solid, organic, n.o.s. (3-Methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate)

14.3 Transport hazard class(es)

ADR/RID: 6.1  
IMDG: 6.1  
IATA: 6.1
14.4 Packaging group
ADR/RID: III      IMDG: III      IATA: III
14.5 Environmental hazards
ADR/RID: no      IMDG Marine pollutant: no      IATA: no
14.6 Special precautions for user
No data available

SECTION 15: Regulatory information
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out

SECTION 16: Other information
Full text of H-Statements referred to under sections 2 and 3.
H301 Toxic if swallowed.
H319 Causes serious eye irritation.

Further 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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.