SAFETY DATA SHEET

Preparation Date: No data available
Revision Date: 03/26/2015
Revision Number: G1

Product code: M2140
Product Name: 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE

Other means of identification
Synonyms:
MBTH hydrochloride hydrate
3-methyl-2-benzothiazolinone hydrazone-hydrochloride hydrate
MBTH hydrate
2-hydrazono-3-methylbenzothiazoline hydrochloride hydrate

CAS #:
149022-15-1

RTECS #:
Not available

CI#:
Not available

Recommended use of the chemical and restrictions on use
Recommended use: No information available.
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)
Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

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

<table>
<thead>
<tr>
<th>Acute toxicity - Oral</th>
<th>Category 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2B</td>
</tr>
</tbody>
</table>

Label elements

Product code: M2140
Product name: 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE
Danger

Hazard statements
Toxic if swallowed
Causes eye irritation

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product

Precautionary Statements - Response
Specific treatment (see .? on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
<th>Trade Secret</th>
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<tbody>
<tr>
<td>3-Methyl-2-benzothiazolinone Hydrazone Hydrochloride, Hydrate</td>
<td>149022-15-1</td>
<td>100</td>
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</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops. If skin irritation persists, call a physician.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention.

Product code: M2140
Product name: 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE
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. Call a physician or Poison Control Center immediately.

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

**Symptoms**
Causes eye irritation. May cause irritation of respiratory tract.

**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

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### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:** Carbon oxides. Sulfur oxides. Nitrogen oxides. Hydrogen chloride gas

**Specific hazards:** Hydrogen chloride gas is produced during combustion Containers may explode when heated

**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

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**Product code:** M2140

**Product name:** 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

**Personal Precautions:**
Use personal protective equipment. Avoid contact with skin, eyes and clothing. All equipment used when handling the product must be grounded. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Remove all sources of ignition. Avoid dust formation. Evacuate personnel to safe areas.

**Environmental precautions**
Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment**
Cover with plastic sheet to prevent spreading. Absorb spill with inert material (e.g. vermiculite, dry sand or earth), then place in a suitable chemical waste container.

**Methods for cleaning up**
Sweep up and shovel into suitable containers for disposal. Avoid creating dust. 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. Keep away from incompatible materials. Minimize dust generation and accumulation. Remove all sources of ignition. All equipment used when handling the product must be grounded.

**Safe Handling Advice:**
Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapours/dust. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Technical Measures/Storage Conditions:**
Keep containers tightly closed in a dry, cool and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store in a segregated and approved area. Store away from incompatible materials.

**Incompatible Materials:**
Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**National occupational exposure limits**

**United States**

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
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**Canada**

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<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
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<tbody>
<tr>
<td>Product code: M2140</td>
<td>Product name: 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE</td>
<td>4 / 12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appropriate engineering controls

**Engineering measures to reduce exposure:**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

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

**Personal Protective Equipment**

- **Eye protection:** Safety glasses with side-shields.
- **Skin and body protection:** Long sleeved clothing.
- **Respiratory protection:** Effective dust mask. Be sure to use an approved/certified respirator or equivalent.
- **Hygiene measures:** When using, do not eat, drink or smoke. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### 9. PHYSICAL AND CHEMICAL PROPERTIES
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<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Odor: No information available</td>
<td>Taste No information available</td>
<td>Molecular/Formula weight: 215.70 g/mol</td>
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<tr>
<td>Formula: C8H9N3S-HCl-xH2O</td>
<td>Flash point (°C): 161.2°C</td>
<td>Flashpoint (°C/F): No information available.</td>
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<tr>
<td>Flash Point Tested according to: Not available</td>
<td>Lower Explosion Limit (%): No information available</td>
<td>Upper Explosion Limit (%): No information available</td>
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<tr>
<td>Autoignition Temperature (°C/°F): No information available</td>
<td>pH: No information available</td>
<td>Melting point/range(°C/°F): 276°C/529°F</td>
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<tr>
<td>Boiling point/range(°C/°F): 342.9°C/649.9°F</td>
<td>Decomposition temperature(°C/°F): No information available</td>
<td>Bulk density: No information available</td>
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<tr>
<td>Specific gravity: No information available</td>
<td>Vapor pressure @ 20°C (kPa): No information available</td>
<td>Density (g/cm3): No information available</td>
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<tr>
<td>Evaporation rate: No information available</td>
<td>Vapor density: No information available</td>
<td>VOC content (g/L): No information available</td>
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<tr>
<td>Odor threshold (ppm): No information available</td>
<td>Partition coefficient (n-octanol/water): No information available</td>
<td>Viscosity: No information available</td>
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<tr>
<td>Miscibility: No information available</td>
<td>Solubility: No information available</td>
<td></td>
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</table>

10. STABILITY AND REACTIVITY

Reactivity
Reactive with oxidizing agents

Chemical stability
Stability: Stable under recommended storage conditions
Possibility of Hazardous Reactions: Hazardous polymerization does not occur
Conditions to avoid: Heat. Incompatible materials.
Incompatible Materials: Strong oxidizing agents.

Other Information
Corrosivity: No information available
Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product code: M2140
Product name: 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE
Principal Routes of Exposure:
Inhalation, Eyes.

**Acute Toxicity**

**Component Information**

3-Methyl-2-benzothiazolinone Hydrazone Hydrochloride, Hydrate - 149022-15-1

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
<th>Information Available</th>
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<tbody>
<tr>
<td>LD50/oral/rat</td>
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<tr>
<td>LD50/oral/mouse</td>
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<tr>
<td>LD50/dermal/rat</td>
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<tr>
<td>LD50/dermal/rabbit</td>
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<tr>
<td>LC50/inhalation/rat</td>
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<tr>
<td>LC50/inhalation/mouse</td>
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**Product Information**

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<td>LD50/oral/mouse</td>
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<td>LD50/dermal/rabbit</td>
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</tr>
<tr>
<td>LC50/inhalation/rat</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>

**Symptoms**

**Skin Contact:** May cause skin irritation  
**Eye Contact:** May cause eye irritation  
**Inhalation** May be harmful if inhaled.  
**Ingestion** Toxic if swallowed.  
**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

**Product code:** M2140  
**Product name:** 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE
Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

<table>
<thead>
<tr>
<th>Components</th>
<th>ACGIH - Carcinogens</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
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<tbody>
<tr>
<td>3-Methyl-2-benzothiazolinone Hydrazine Hydrochloride, Hydrate</td>
<td>Not listed</td>
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<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
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</tbody>
</table>

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: No information available
Mobility: No information available

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

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<tbody>
<tr>
<td>3-Methyl-2-benzothiazolinone Hydrazine Hydrochloride, Hydrate</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</tbody>
</table>
14. TRANSPORT INFORMATION

DOT
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: None
ERG No: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available

TDG (Canada)
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

ADR
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
MFAG: No information available
Maximum Quantity: No information available

RID
UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Classification Code: No information available
Description: No information available

ICAO
UN-No: Not Regulated
Proper Shipping Name: No information available

Product code: M2140  Product name: 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE
14. TRANSPORT INFORMATION

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<tbody>
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<td>Subsidiary Risk:</td>
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IATA

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<td>Description:</td>
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15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>KOREA KECL (PICCS)</th>
<th>Philippines</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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<tbody>
<tr>
<td>3-Methyl-2-benzothiazolinone Hydrazine Hydrochloride, Hydrate</td>
<td>Not Listed</td>
<td>Not present</td>
<td>Not present</td>
<td>Not present</td>
<td>Not present</td>
<td>Not present</td>
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</tr>
</tbody>
</table>

U.S. Regulations


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)

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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<tr>
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CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
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</thead>
<tbody>
<tr>
<td>3-Methyl-2-benzothiazolinone Hydrazine Hydrochloride, Hydrate</td>
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U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
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Canada

Product code: M2140

Product name: 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE
WHMIS hazard class:
Non-controlled

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

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<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
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<td>3-Methyl-2-benzothiazolinone Hydrazine Hydrochloride, Hydrate</td>
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Components

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<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
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<td>Not listed</td>
</tr>
</tbody>
</table>

EU Classification

R-phrase(s)
not determined (not applicable)
R20/21/22 - Also harmful by inhalation, in contact with skin and if swallowed
R36/37/38 - Irritating to eyes, respiratory system and skin.

S -phrase(s)
none

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
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<tr>
<td>3-Methyl-2-benzothiazolinone Hydrazine Hydrochloride, Hydrate</td>
<td>No information</td>
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</tbody>
</table>

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

Indication of danger:
Xn - Harmful.

16. OTHER INFORMATION

Product code: M2140
Product name: 3-METHYL-2-BENZOTHIAZOLINONE HYDRAZONE HYDROCHLORIDE, HYDRATE
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