

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride $\geq 98\%$ , p.a.

article number: **8413**  
Version: **1.0 en**

date of compilation: 2016-04-07

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

#### 1.1 Product identifier

|                                 |   |
|---------------------------------|---|
| Identification of the substance | <b>3-Methyl-2-benzothiazolinone hydrazone hydrochloride</b> |
| Article number                  | 8413  |
| Registration number (REACH)     | This information is not available.                          |
| EC number                       | 224-393-5   |
| CAS number                      | 4338-98-1   |

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses:** laboratory chemical

#### 1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:** +49 (0) 721 - 56 06 0

**Telefax:** +49 (0) 721 - 56 06 149

**e-mail:** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

Competent person responsible for the safety data sheet : Department Health, Safety and Environment

**e-mail (competent person)** : [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

#### 1.4 Emergency telephone number

Emergency information service **Poison Centre Munich: +49/(0)89 19240**

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

| Classification acc. to GHS |                                   |                           |                  |
|----------------------------|-----------------------------------|---------------------------|------------------|
| Section                    | Hazard class                      | Hazard class and category | Hazard statement |
| 3.10                       | acute toxicity (oral)             | (Acute Tox. 3)            | H301             |
| 3.3                        | serious eye damage/eye irritation | (Eye Irrit. 2)            | H319             |

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride $\geq 98\%$ , p.a.

article number: **8413**

### Remarks

Caution. - substance not yet fully tested.  
For full text of Hazard- and EU Hazard-statements: see SECTION 16.

## 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008 (CLP)

#### Signal word

**Danger**

#### Pictograms



#### Hazard statements

H301 Toxic if swallowed.  
H319 Causes serious eye irritation.

#### Precautionary statements

##### Precautionary statements - prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

##### Precautionary statements - response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.

#### Labelling of packages where the contents do not exceed 125 ml

Signal word: **Danger**

Symbol(s)



H301 Toxic if swallowed.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.

## 2.3 Other hazards

There is no additional information.

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride ≥98%, p.a.

article number: 8413

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

|                   |  |
|-------------------|--|
| Name of substance | 3-Methyl-2-benzothiazolinone hydrazone hydrochloride |
| EC number         | 224-393-5  |
| CAS number        | 4338-98-1  |
| Molecular formula | C <sub>8</sub> H <sub>9</sub> N <sub>3</sub> S HCl   |
| Molar mass        | 215,7 g/mol  |

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures



##### General notes

Take off contaminated clothing.

##### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

##### Following skin contact

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

##### Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

##### Following ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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

Irritation

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

none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings  
water spray, foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>)

##### Unsuitable extinguishing media

water jet

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride $\geq 98\%$ , p.a.

article number: 8413

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

Combustible.

#### Hazardous combustion products

In case of fire may be liberated: nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), sulphur oxides (SO<sub>x</sub>), hydrogen chloride (HCl)

### 5.3 Advice for firefighters

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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

#### For non-emergency personnel

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Avoid contact with skin, eyes and clothes. Do not breathe dust.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

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

#### Advices on how to contain a spill

Covering of drains.

#### Advices on how to clean up a spill

Take up mechanically. Control of dust.

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

#### Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid dust formation.

#### • Measures to prevent fire as well as aerosol and dust generation

Removal of dust deposits.

#### Advice on general occupational hygiene

When using do not eat or drink. Thorough skin-cleansing after handling the product.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a dry place.

#### Incompatible substances or mixtures

Observe hints for combined storage.

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride $\geq 98\%$ , p.a.

article number: 8413

### Consideration of other advice

Store locked up.

#### • Ventilation requirements

Use local and general ventilation.

#### • Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C.

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

| Country | Name of agent | CAS No | Notation | Identifier | TWA [mg/m <sup>3</sup> ] | STEL [mg/m <sup>3</sup> ] | Source    |
|---------|---------------|--------|----------|------------|--------------------------|---------------------------|-----------|
| GB      | dust          |        | i        | WEL        | 10                       |                           | EH40/2005 |
| GB      | dust          |        | r        | WEL        | 4                        |                           | EH40/2005 |

#### Notation

i Inhalable fraction

r Respirable fraction

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)



#### Eye/face protection

Use safety goggles with side protection.

#### Skin protection

##### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### • type of material

NBR (Nitrile rubber)

##### • material thickness

0,4 mm.

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride $\geq 98\%$ , p.a.

article number: **8413**

- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection

Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P3 (filters at least 99,95 % of airborne particles, colour code: White).

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                 |                             |
|-----------------|-----------------------------|
| Physical state  | solid (powder, crystalline) |
| Colour          | whitish                     |
| Odour           | odourless                   |
| Odour threshold | No data available           |

#### Other physical and chemical parameters

|   |  |
|---|--|
| pH (value)                              | This information is not available.             |
| Melting point/freezing point            | 276 - 278 °C                                   |
| Initial boiling point and boiling range | This information is not available.             |
| Flash point                             | not applicable                                 |
| Evaporation rate                        | no data available                              |
| Flammability (solid, gas)               | Non-flammable                                  |
| <u>Explosive limits</u>                 |  |
| • lower explosion limit (LEL)           | this information is not available              |
| • upper explosion limit (UEL)           | this information is not available              |
| Explosion limits of dust clouds         | these information are not available            |
| Vapour pressure                         | This information is not available.             |
| Density                                 | This information is not available.             |
| Vapour density                          | This information is not available.             |
| Relative density                        | Information on this property is not available. |

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride ≥98%, p.a.

article number: **8413**

### Solubility(ies)

Water solubility soluble

### Partition coefficient

n-octanol/water (log KOW) This information is not available.

Auto-ignition temperature Information on this property is not available.

Decomposition temperature no data available

Viscosity not relevant (solid matter)

Explosive properties none

Oxidising properties none

### 9.2 Other information

There is no additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

Violent reaction with: Alkali (lye), Strong oxidiser

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

| Exposure route | Endpoint | Value        | Species | Source |
|----------------|----------|--------------|---------|--------|
| oral           | LD50     | 149 mg/kg    | rat     | TOXNET |
| dermal         | LD50     | 12.300 mg/kg | rabbit  | TOXNET |

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride $\geq 98\%$ , p.a.

article number: 8413

### Serious eye damage/eye irritation

Causes serious eye irritation.

### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

### Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

#### • Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### • Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

### Symptoms related to the physical, chemical and toxicological characteristics

#### • If swallowed

data are not available

#### • If in eyes

data are not available

#### • If inhaled

data are not available

#### • If on skin

data are not available

### Other information

None

## SECTION 12: Ecological information

### 12.1 Toxicity

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

### 12.2 Process of degradability

Theoretical Oxygen Demand with nitrification: 1,805 mg/mg

Theoretical Oxygen Demand: 1,409 mg/mg

Theoretical Carbon Dioxide: 1,632 mg/mg

### 12.3 Bioaccumulative potential

Data are not available.

### 12.4 Mobility in soil

Data are not available.

### 12.5 Results of PBT and vPvB assessment

Data are not available.



# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride $\geq 98\%$ , p.a.

article number: **8413**

### 12.6 Other adverse effects

Slightly hazardous to water.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Sewage disposal-relevant information

Do not empty into drains.

#### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

## SECTION 14: Transport information

|      |   |   |
|------|---|---|
| 14.1 | UN number   | 2811  |
| 14.2 | UN proper shipping name   | <b>TOXIC SOLID, ORGANIC, N.O.S.</b>   |
|      | Hazardous ingredients   | 3-Methyl-2-benzothiazolinone hydrazone hydrochloride  |
| 14.3 | Transport hazard class(es)  |   |
|      | Class   | 6.1 (toxic substances)  |
| 14.4 | Packing group   | III (substance presenting low danger)   |
| 14.5 | Environmental hazards   | none (non-environmentally hazardous acc. to the dangerous goods regulations)                                  |
| 14.6 | <b>Special precautions for user</b>   |   |
|      | Provisions for dangerous goods (ADR) should be complied within the premises.          |   |
| 14.7 | <b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>             |   |
|      | The cargo is not intended to be carried in bulk.                                      |   |
| 14.8 | <b>Information for each of the UN Model Regulations</b>                               |   |
|      | <b>• Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)</b> |   |
|      | UN number   | 2811  |
|      | Proper shipping name  | TOXIC SOLID, ORGANIC, N.O.S.  |
|      | Particulars in the transport document   | UN2811, TOXIC SOLID, ORGANIC, N.O.S., (3-methylbenzothiazol-2(3H)-one hydrazone hydrochloride), 6.1, III, (E) |
|      | Class   | 6.1   |
|      | Classification code   | T2  |
|      | Packing group   | III   |
|      | Danger label(s)   | 6.1   |

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride ≥98%, p.a.

article number: **8413**



|                               |                    |
|-------------------------------|--------------------|
| Special provisions (SP)       | 274, 614, 802(ADN) |
| Excepted quantities (EQ)      | E1                 |
| Limited quantities (LQ)       | 5 kg               |
| Transport category (TC)       | 2                  |
| Tunnel restriction code (TRC) | E                  |
| Hazard identification No      | 60                 |
| <b>Emergency Action Code</b>  | <b>2X</b>          |

### • International Maritime Dangerous Goods Code (IMDG)

|  |  |
|--|--|
| UN number                                | 2811   |
| Proper shipping name                     | TOXIC SOLID, ORGANIC, N.O.S.   |
| Particulars in the shipper's declaration | UN2811, TOXIC SOLID, ORGANIC, N.O.S., (3-methylbenzothiazol-2(3H)-one hydrazone hydrochloride), 6.1, III |
| Class                                    | 6.1  |
| Packing group                            | III  |
| Danger label(s)                          | 6.1  |



|                          |          |
|--------------------------|----------|
| Special provisions (SP)  | 223, 274 |
| Excepted quantities (EQ) | E1       |
| Limited quantities (LQ)  | 5 kg     |
| EmS                      | F-A, S-A |
| Stowage category         | B        |

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Relevant provisions of the European Union (EU)

- **Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)**  
Not listed.

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride ≥98%, p.a.

article number: 8413

- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**

Not listed.

- **Regulation 850/2004/EC on persistent organic pollutants (POP)**

Not listed.

- **Restrictions according to REACH, Annex XVII**

not listed

- **List of substances subject to authorisation (REACH, Annex XIV)**

not listed

**Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II**

not listed

**Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**

not listed

**Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)**

not listed

### National inventories

Substance is listed in the following national inventories:

- EINECS/ELINCS/NLP (Europe)

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Abbreviations and acronyms

| Abbr.     | Descriptions of used abbreviations  |
|-----------|---|
| ADN       | Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways) |
| ADR       | Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)                                       |
| CAS       | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)  |
| CLP       | Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures  |
| CMR       | Carcinogenic, Mutagenic or toxic for Reproduction   |
| EH40/2005 | EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )                                 |
| EINECS    | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS    | European List of Notified Chemical Substances   |
| EmS       | Emergency Schedule  |
| GHS       | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations   |
| IMDG      | International Maritime Dangerous Goods Code   |
| MARPOL    | International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")   |
| NLP       | No-Longer Polymer   |
| PBT       | Persistent, Bioaccumulative and Toxic   |

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## 3-Methyl-2-benzothiazolinone hydrazone hydrochloride $\geq 98\%$ , p.a.

article number: **8413**

| Abbr. | Descriptions of used abbreviations  |
|-------|---|
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals  |
| RID   | Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail) |
| STEL  | short-term exposure limit   |
| TWA   | time-weighted average   |
| vPvB  | very Persistent and very Bioaccumulative  |
| WEL   | workplace exposure limit  |

### Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

| Code | Text                          |
|------|-------------------------------|
| H301 | toxic if swallowed            |
| H319 | causes serious eye irritation |

### Disclaimer

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.