

# Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 01.08.2013

Version number 1

Revision: 01.08.2013

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

### 1.1 Product identifier

**Trade name:** MONOCROTALINE N-OXIDE ROTICHROM® HPLC**Article number:** 2249**CAS Number:**  
35337-98-5

### Registration number

A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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

No further relevant information available.

### Application of the substance / the preparation

Laboratory chemical

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

#### Manufacturer/Supplier:

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

Telefon: +49/(0)721 5606-0

Telefax: +49/(0)721 5606-149

E-Mail: [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**Further information obtainable from:** Department Health, Safety and Environment

### 1.4 Emergency telephone number:

Poison Centre Munich

Telefon +49/(0)89 19240

## 2 Hazards identification

### 2.1 Classification of the substance or mixture

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

Acute Tox. 3 H301 Toxic if swallowed.

#### Classification according to Directive 67/548/EEC or Directive 1999/45/EC

T; Toxic

R25: Toxic if swallowed.

**Additional information:** Note, not yet fully tested.

### 2.2 Label elements

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

The substance is classified and labelled according to the CLP regulation.

#### Hazard pictograms



GHS06

**Signal word** Danger

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**Hazard statements**

H301 Toxic if swallowed.

**Precautionary statements**

P270 Do not eat, drink or smoke when using this product.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P330 Rinse mouth.

**2.3 Other hazards**

All chemicals are potentially dangerous. They are therefore only be handled by specially trained personnel with the necessary care.

**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.

## 3 Composition/information on ingredients

**3.1 Chemical characterization: Substances****CAS No. Description**

35337-98-5 Monocrotaline N-oxide

**Identification number(s)****Formula:**  $C_{16}H_{23}NO_7$ **Molar mass [g/mol]:** 341,36

## 4 First aid measures

**4.1 Description of first aid measures****General information:**

Remove any clothing soiled by the product.

**After inhalation:**

Supply fresh air; if there is any trouble seek medical help.

**After skin contact:**

Immediately rinse with water.

If there is any trouble seek medical help.

**After eye contact:**

To be sure rinse opened eye under running water. If there is any trouble seek medical help.

**After swallowing:**

Rinse out mouth and then drink water.

Call for a doctor immediately and show the container or label.

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

We have no description of any toxic symptoms.

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

No further relevant information available.

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## 5 Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing agents:**

Use fire extinguishing methods suitable to surrounding conditions.  
CO<sub>2</sub>, powder, foam or water spray.

**For safety reasons unsuitable extinguishing agents:**

For this substance/mixture no limitations of extinguishing agents are given.

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

In the event of fire development of hazardous combustion gases or vapours possible.

In case of fire, the following can be released:

Nitrogen oxides (NO<sub>x</sub>)

Carbon monoxide and carbon dioxide

### 5.3 Advice for firefighters

**Protective equipment:**

Wear self-contained respiratory protective device.

## 6 Accidental release measures

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

Do not breathe dust.

Avoid contact with the eyes and skin.

### 6.2 Environmental precautions

Do not allow product to reach sewage system or any water course.

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

Pick up mechanically.

Dispose of the material collected according to regulations.

Dispose contaminated material as waste according to item 13.

### 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

### 7.1 Precautions for safe handling

Provide suction extractors if dust is formed.

Keep containers, equipment and working place clean.

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

**Storage:****Requirements to be met by storerooms and receptacles:**

Store only in the original receptacle.

**Information about storage in one common storage facility:**

Store away from foodstuffs.

**Further information about storage conditions:**

Keep container tightly sealed.

Store in dry conditions.

Protect from exposure to the light.

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**Recommended storage temperature:** +4 °C**7.3 Specific end use(s)**

No further relevant information available.

**8 Exposure controls/personal protection****Additional information about design of technical facilities:**

No further data; see item 7.

**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:** Not required.**8.2 Exposure controls****Personal protective equipment:****General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Do not breathe dust.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

**Individual protection measures**

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

**Respiratory protection:**

When dusts are generated: protective device filter P3.

**Protection of hands:****Protective gloves**

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves**Nitrile, thickness:  $\geq 0.11$  mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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**Eye protection:**

Tightly sealed goggles

**Body protection:**

Protective work clothing

## 9 Physical and chemical properties

**9.1 Information on basic physical and chemical properties****General Information****Appearance:**

<b>Form:</b>	Crystalline powder
<b>Colour:</b>	Colourless
<b>Odour:</b>	Odourless
<b>Odour threshold:</b>	No information available.

<b>pH-value:</b>	No information available.
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**Change in condition**

<b>Melting point/Melting range:</b>	134-138 °C
<b>Boiling point/Boiling range:</b>	No information available.

<b>Flash point:</b>	No information available
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<b>Flammability (solid, gaseous):</b>	No information available
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<b>Ignition temperature:</b>	No information available
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<b>Decomposition temperature:</b>	No information available
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<b>Self-igniting:</b>	No information available
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<b>Danger of explosion:</b>	The product is not explosive. However, dust may form an explosive mixture with air.
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**Explosion limits:**

<b>Lower:</b>	No information available.
<b>Upper:</b>	No information available.

<b>Oxidizing properties:</b>	No information available.
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<b>Vapour pressure:</b>	Not applicable.
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<b>Density:</b>	No information available.
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<b>Relative density</b>	No Information available.
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<b>Vapour density</b>	Not applicable.
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<b>Evaporation rate</b>	Not applicable.
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<b>Solubility in / Miscibility with water:</b>	Not easily soluble.
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<b>Partition coefficient (n-octanol/water):</b>	No information available
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**Viscosity:**

<b>Dynamic:</b>	No information available.
<b>Kinematic:</b>	No information available.

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**9.2 Other information**

No further relevant information available.

**10 Stability and reactivity****10.1 Reactivity**

See section 10.3

**10.2 Chemical stability****Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

**10.3 Possibility of hazardous reactions**Strong reaction possible with:

Strong oxidizing agents

**10.4 Conditions to avoid**

Exposure to light

**10.5 Incompatible materials:**

No information available.

**10.6 Hazardous decomposition products:**

In case of fire: see item 5.

**11 Toxicological information****11.1 Information on toxicological effects****Acute toxicity:****LD/LC50 values relevant for classification:**

Oral	LD50*	66 mg/kg (rat) Monocrotaline
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**Primary irritant effect:****on the skin:**

No information available.

**on the eye:**

Intense exposure may cause irritative symptoms.

**after inhalation:**

Intensive contact with dusts may lead to irritations of the eyes and the respiratory tract.

**Sensitization:**

No sensitizing effects known.

**CMR effects:****Germ cell mutagenicity:**

No information available.

**Carcinogenicity:**

Probably carcinogenic to humans.

**Reproductive toxicity:**

No information available.

**Aspiration hazard:**

No aspiration toxicity classification.

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**Specific target organ toxicity - single exposure**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

**Specific target organ toxicity - repeated exposure**

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

**Additional toxicological information:**

After swallowing large quantities:

Liver damage

**Further information:**

To the best of our knowledge, the toxicological properties have not been thoroughly investigated. Further hazardous properties cannot be excluded.

The product should be handled with the care usual when dealing with chemicals.

## 12 Ecological information

**12.1 Toxicity****Aquatic toxicity:**

Quantitative data on the ecological effect of this product are not available.

**12.2 Persistence and degradability**

biodegradable

**12.3 Bioaccumulative potential**

No further relevant information available.

**12.4 Mobility in soil**

No further relevant information available.

**Ecotoxicological effects:****Remark:**

Do not allow to enter waters, waste water, or soil!

**12.5 Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects**

No further relevant information available.

## 13 Disposal considerations

**Waste treatment methods****Recommendation**

This material and its container must be disposed of as hazardous waste.

The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.

**Uncleaned packaging:****Recommendation:**

Disposal according to official regulations.

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## 14 Transport information

<b>14.1 UN-Number</b>	
ADR, IMDG, IATA	UN1544
<b>14.2 UN proper shipping name</b>	
ADR	1544 ALKALOIDS, SOLID, N.O.S. (Monocrotaline N-oxide)
IMDG, IATA	ALKALOIDS, SOLID, N.O.S. (Monocrotaline N-oxide)
<b>14.3 Transport hazard class(es)</b>	
ADR, IMDG, IATA	
	
Class	6.1 Toxic substances.
Label	6.1
<b>14.4 Packing group</b>	
ADR, IMDG, IATA	III
<b>14.5 Environmental hazards:</b>	
Marine pollutant:	No
<b>14.6 Special precautions for user</b>	
Danger code (Kemler):	Warning: Toxic substances.
EMS Number:	60 F-A,S-A
<b>14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
Not applicable.	
<b>Transport/Additional information:</b>	
ADR	
Limited quantities (LQ)	5 kg
Transport category	2
Tunnel restriction code	E
UN "Model Regulation":	UN1544, ALKALOIDS, SOLID, N.O.S. (Monocrotaline N-oxide), 6.1, III

## 15 Regulatory information

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

#### National regulations:

#### Information about limitation of use:

Employment restrictions concerning pregnant and lactating women must be observed.  
Employment restrictions concerning juveniles must be observed.

#### Waterhazard class:

Water hazard class 3 (Self-assessment): extremely hazardous for water.

### 15.2 Chemical safety assessment

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A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:** Department: Health, Safety and Environment

**Contact:** Frau Weckemann

**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

LD50\*: Lethal Dose, 50 percent (Not relevant for classification)

LD50\*: Lethal Concentration, 50 percent (Not relevant for classification)

GB