

# Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 09.10.2013

Version number 1

Revision: 09.10.2013

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

### 1.1 Product identifier

**Trade name:** TOMATIDINE ROTICHROM® TLC**Article number:** 5678**CAS Number:**

77-59-8

**EC number:**

201-040-3

### 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 mixture

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.

Acute Tox. 3 H331 Toxic if inhaled.

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

T; Toxic

R23/25: Toxic by inhalation and 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

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**Signal word** Danger**Hazard statements**

H301+H331 Toxic if swallowed or if inhaled.

**Precautionary statements**

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

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P309 IF exposed or if you feel unwell:

P310 Immediately call a POISON CENTER or doctor/physician.

P405 Store locked up.

**Additional information:**

-

**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**

77-59-8 Tomatidine

**Identification number(s)****EC number:** 201-040-3**Formula:**  $C_{27}H_{45}NO_3$ **Molar mass [g/mol]:** 415,66

## 4 First aid measures

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

Immediately remove any clothing soiled by the product.

First Aider: Pay attention to self-protection!

**After inhalation:**

Take affected persons into fresh air and keep quiet.

If breathing is difficult, give oxygen. Seek medical advice immediatly.

**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.

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

Irritations  
Dizziness  
Spasms  
Gastric or intestinal disorders  
Nausea  
Vomiting

**Hazards**

Danger of impaired breathing.  
Danger of disturbed cardiac rhythm.

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

No further relevant information available.

**5 Firefighting measures****5.1 Extinguishing media**

**Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

**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**

Wear protective clothing.  
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.  
Avoid formation of dust  
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.

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## 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.

Protect from exposure to the light.

Store under lock and key and with access restricted to technical experts or their assistants only.

**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.

### **Additional information:**

The lists valid during the making were used as basis.

### 8.2 Exposure controls

#### Personal protective equipment:

#### **General protective and hygienic measures:**

Do not eat, drink or smoke while working.

Immediately remove all soiled and contaminated clothing.

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:**



Required when dusts are generated: filter P3.

When selecting your respiratory unit: Consider the "Rules for the use of respiratory protection equipment" (BGR190).

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**Protection of hands:**

Protective gloves

**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**Value for the permeation: Level  $\geq 6$ 

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

**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>          | Whitish                   |
| <b>Odour:</b>           | Odourless                 |
| <b>Odour threshold:</b> | No information available. |

|                  |                           |
|------------------|---------------------------|
| <b>pH-value:</b> | No information available. |
|------------------|---------------------------|

**Change in condition**

|                                     |                           |
|-------------------------------------|---------------------------|
| <b>Melting point/Melting range:</b> | 210 - 211 °C              |
| <b>Boiling point/Boiling range:</b> | No information available. |

|                     |                          |
|---------------------|--------------------------|
| <b>Flash point:</b> | No information available |
|---------------------|--------------------------|

|                                       |                          |
|---------------------------------------|--------------------------|
| <b>Flammability (solid, gaseous):</b> | No information available |
|---------------------------------------|--------------------------|

|                              |                          |
|------------------------------|--------------------------|
| <b>Ignition temperature:</b> | No information available |
|------------------------------|--------------------------|

|                                   |                          |
|-----------------------------------|--------------------------|
| <b>Decomposition temperature:</b> | No information available |
|-----------------------------------|--------------------------|

|                       |                          |
|-----------------------|--------------------------|
| <b>Self-igniting:</b> | No information available |
|-----------------------|--------------------------|

|                             |                          |
|-----------------------------|--------------------------|
| <b>Danger of explosion:</b> | No information available |
|-----------------------------|--------------------------|

**Explosion limits:**

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

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|                                                 |                                            |
|-------------------------------------------------|--------------------------------------------|
| <b>Oxidizing properties:</b>                    | No information available.                  |
| <b>Vapour pressure:</b>                         | No information available                   |
| <b>Density:</b>                                 | No information available.                  |
| <b>Relative density</b>                         | No Information available.                  |
| <b>Vapour density</b>                           | No information available                   |
| <b>Evaporation rate</b>                         | No information available                   |
| <b>Solubility in / Miscibility with water:</b>  | No information available.                  |
| <b>Partition coefficient (n-octanol/water):</b> | No information available                   |
| <b>Viscosity:</b>                               |                                            |
| <b>Dynamic:</b>                                 | No information available.                  |
| <b>Kinematic:</b>                               | No information available.                  |
| <b>9.2 Other information</b>                    | No further relevant information available. |

## 10 Stability and reactivity

### 10.1 Reactivity

No further relevant information available.

### 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

No information available.

### 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:**

Quantitative data on the toxicity of this product are not available.

#### Primary irritant effect:

##### **on the skin:**

No information available.

##### **on the eye:**

Intense exposure may cause irritative symptoms.

##### **after inhalation:**

Irritations in the respiratory tract, coughing, dyspnoea.  
absorption

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**Sensitization:**

No sensitizing effects known.

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

No information available.

**Carcinogenicity:**

No information available.

**Reproductive toxicity:**

No information available.

**Aspiration hazard:**

No aspiration toxicity classification.

**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:

gastrointestinal complaints

Nausea

Vomiting

Spasms

After absorption of toxic quantities:

Coma

Possibly respiratory arrest and heart attack

Damage of the kidneys.

**Further information:**

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

This substance should be handled with particular care.

**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**

No further relevant information available.

**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.

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### 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.

### 14 Transport information

#### 14.1 UN-Number

ADR, IMDG, IATA

UN1544

#### 14.2 UN proper shipping name

ADR  
IMDG, IATA1544 ALKALOIDS, SOLID, N.O.S. (Tomatidine)  
ALKALOIDS, SOLID, N.O.S. (Tomatidine)

#### 14.3 Transport hazard class(es)

ADR, IMDG, IATA

Class  
Label6.1 Toxic substances.  
6.1

#### 14.4 Packing group

ADR, IMDG, IATA

III

#### 14.5 Environmental hazards:

Marine pollutant:

No

#### 14.6 Special precautions for user

Danger code (Kemler):

Warning: Toxic substances.

EMS Number:

60

F-A,S-A

#### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

#### Transport/Additional information:

ADR

Limited quantities (LQ)

5 kg

Transport category

2

Tunnel restriction code

E

UN "Model Regulation":

UN1544, ALKALOIDS, SOLID, N.O.S. (Tomatidine),  
6.1, III

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## 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 juveniles must be observed.

#### Breakdown regulations:

**Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

### 15.2 Chemical safety assessment 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:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

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

EINECS: European Inventory of Existing Commercial Chemical Substances

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)

**\* Data compared to the previous version altered.**