

# Safety data sheet

according to Regulation (EC) No. 1907/2006



Printing date 08.03.2012

Version number 1

Revision: 08.03.2012

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

- **Product identifier**

- **Trade name:** 5-METHYL-3-HEPTANONE ROTICHROM® GC

- **Article number:** 3122

- **CAS Number:**

541-85-5

- **EC number:**

208-793-7

- **Index number:**

606-020-00-1

- **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.

- **Relevant identified uses of the substance or mixture and uses advised against**

- **Application of the substance / the preparation** Laboratory chemical

- **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

- **Emergency telephone number:** Poison Centre Munich

Telefon +49/(0)89 19240

## 2 Hazards identification

- **Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**

Flam. Liq. 3 H226 Flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H335 May cause respiratory irritation.

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

Xi; Irritant

R36/37: Irritating to eyes and respiratory system.

R10: Flammable.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

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

- **Hazard pictograms**



GHS02



GHS07

- **Signal word** Warning

- **Hazard statements**

H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

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**Precautionary statements**

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a POISON CENTER or doctor/physician if you feel unwell.
- P337+P313 If eye irritation persists: Get medical advice/attention.

**Other hazards**

All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

**Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

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

541-85-5 5-methylheptan-3-one

**Identification number(s)**· **EC number:** 208-793-7· **Index Number:** 606-020-00-1

### 4 First aid measures

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

First Aider: Pay attention to self-protection!  
 General advice: No induce of vomiting by layman.  
 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:** Rinse opened eye for 10 minutes under running water. Then consult a doctor.

**After swallowing:**

Rinse out mouth and drink a glass of water. Do not induce vomiting.  
 Call for a doctor immediately and show the container or label.

**Information for doctor:****Most important symptoms and effects, both acute and delayed**

Breathing difficulty  
 Coughing

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

No further relevant information available.

### 5 Firefighting measures

**Extinguishing media****Suitable extinguishing agents:**

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

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

**Special hazards arising from the substance or mixture**

In case of fire, the following can be released:  
 Carbon monoxide (CO)

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- **Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Keep away from ignition sources.  
Do not breathe vapour/spray.  
Avoid contact with the eyes and skin.  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Wear protective clothing.
- **Environmental precautions:** Do not allow to enter sewers/ground water or penetrate the soil.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (e.g. Rotisorb® Art.-Nr. 1710.1).  
Dispose of the material collected according to regulations.  
Ensure adequate ventilation.
- **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

- **Handling:**
- **Precautions for safe handling**  
Keep away from heat and direct sunlight.  
Do not spray on a naked flame or any incandescent material.  
Handling corresponding to laboratory safety guidelines.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**  
Flammable gas-air mixtures may form in empty receptacles.  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Recommended storage temperature:** 15-25 °C
- **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.
- **Control parameters**

<b>Ingredients with limit values that require monitoring at the workplace:</b>
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<b>541-85-5 5-methylheptan-3-one</b>
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WEL (Great Britain)	Short-term value: 20 ppm Long-term value: 10 ppm
IOELV (EU)	Short-term value: 107 mg/m <sup>3</sup> , 20 ppm Long-term value: 53 mg/m <sup>3</sup> , 10 ppm

- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Do not eat, drink or smoke while working.  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Respiratory protection:**  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.  
Required when vapours/aerosols are generated.
- **Protection of hands:**  
Due to missing tests no recommendation to the glove material can be given for the product.



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
Butylcaoutchouc, thickness: 0,7 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  $\geq 3$   
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

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

Form:	Fluid
Colour:	Colourless
Odour:	Fruit-like
Odour threshold:	Not determined.

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· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-57°C
Boiling point/Boiling range:	157-162°C
· Flash point:	43°C
· Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Self-igniting:	Not determined.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures is possible.
· Explosion limits:	
Lower:	0.9 Vol %
Upper:	48 Vol %
· Vapour pressure at 20°C:	2.4 hPa
· Density at 20°C:	0.82 g/cm <sup>3</sup>
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water at 20°C:	3 g/l
· Segregation coefficient (n-octanol/water):	2.15 log POW (calc.)
· Viscosity:	
Dynamic at 25°C:	0.8 mPas
Kinematic:	Not determined.
· Other information	No further relevant information available.

## 10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided:  
No decomposition if used and stored according to specifications.
- Possibility of hazardous reactions Forms explosive gas mixture with air.
- Conditions to avoid No further relevant information available.
- Incompatible materials:  
Strong oxidizing agents.  
Strong alkalis
- Hazardous decomposition products: No information available.
- Additional information: Unsuitable working materials: various plastics, rubber.

## 11 Toxicological information

- Information on toxicological effects
- Acute toxicity:

· LD/LC50 values relevant for classification:			
Oral	LD50	3500 mg/kg (rat) (RTECS)	

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Dermal	LD50	>16000 mg/kg (rabbit) (RTECS)
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- **Primary irritant effect:**
- **on the skin:** Slight irritations.
- **on the eye:** Irritating effect.
- **after inhalation:** Irritations in the respiratory tract, coughing, dyspnoea.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:** We have no description of any toxic symptoms.
- **Further information:** The product should be handled with the care usual when dealing with chemicals.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.

· <b>Daphnia toxicity:</b>	
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EC50	80 mg/l/24 h (Carassius auratus)
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- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential**  
Due to the distribution coefficient n-octanol/water a worth-mentioning accumulation in organisms is not expected.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Do not allow to enter waters, waste water, or soil!
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
Do not allow product to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**  
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.  
This material and its container must be disposed of as hazardous waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.

## 14 Transport information

- |                                  |                        |
|----------------------------------|------------------------|
| · <b>UN-Number</b>               |                        |
| · <b>ADR, IMDG, IATA</b>         | UN2271                 |
| · <b>UN proper shipping name</b> |                        |
| · <b>ADR</b>                     | 2271 ETHYL AMYL KETONE |
| · <b>IMDG, IATA</b>              | ETHYL AMYL KETONE      |

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GB

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· Transport hazard class(es) · ADR	
	
· Class	3 Flammable liquids.
· Label	3
· IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· Packing group	
· ADR, IMDG, IATA	III
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	30
· EMS Number:	F-E,S-D
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN2271, ETHYL AMYL KETONE, 3, III

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Information about limitation of use: In dealing with chemicals the national laws must be observed.
- Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 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: Herr Heine

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**· 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)

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

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

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

GB