Piperitone ROTICHROM® GC

article number: 5174
Version: 1.0 en
date of compilation: 2020-01-23

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

1.1 Product identifier

Identification of the substance: Piperitone
Article number: 5174
Registration number (REACH): This information is not available.
EC number: 201-942-7
CAS number: 89-81-6

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

Identified uses: laboratory chemical
laboratory and analytical use

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
Website: www.carlroth.de

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

E-mail (competent person): sicherheit@carlroth.de

1.4 Emergency telephone number

<table>
<thead>
<tr>
<th>Name</th>
<th>Street</th>
<th>Postal code/city</th>
<th>Telephone</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Poisons Information Centre Beaumont Hospital</td>
<td>Beaumont Road</td>
<td>Dublin 9</td>
<td>01 809 2166</td>
<td><a href="https://www.poisons.ie/">https://www.poisons.ie/</a></td>
</tr>
</tbody>
</table>

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)
This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)
not required

Signal word not required

2.3 Other hazards
SECTION 3: Composition/information on ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Name of substance</th>
<th>6-Isopropyl-3-methylcyclohexen-2-enone</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC number</td>
<td>201-942-7</td>
</tr>
<tr>
<td>CAS number</td>
<td>89-81-6</td>
</tr>
<tr>
<td>Molecular formula</td>
<td>C_{10}H_{16}O</td>
</tr>
<tr>
<td>Molar mass</td>
<td>152,2 g/mol</td>
</tr>
</tbody>
</table>

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
Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

Following ingestion
Rinse mouth. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed
Symptoms and effects are not known to date

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_{2})
Unsuitable extinguishing media
water jet

5.2 Special hazards arising from the substance or mixture
Combustible. Vapours can form explosive mixtures with air.

Hazardous combustion products
In case of fire may be liberated: carbon monoxide (CO), carbon dioxide (CO₂)

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
Do not breathe vapour/spray. Avoid contact with skin and eyes.

6.2 Environmental precautions
Keep away from drains, surface and ground water.

6.3 Methods and material for containment and cleaning up
Advice on how to contain a spill
Covering of drains.

Other information relating to spills and releases
Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Provide adequate ventilation.

• Measures to prevent fire as well as aerosol and dust generation
Keep away from sources of ignition - No smoking.

Advice on general occupational hygiene
Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a cool place.

Incompatible substances or mixtures
Observe hints for combined storage.
Consideration of other advice

- Ventilation requirements
  Use local and general ventilation.

- Specific designs for storage rooms or vessels
  Recommended storage temperature: 2 – 8 °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)
Data are not available.

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.

  - type of material
    NBR (Nitrile rubber)

  - material thickness
    >0.11 mm

  - 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: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).
**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: liquid (fluid)
- Colour: colourless
- Odour: characteristic
- Odour threshold: No data available

**Other physical and chemical parameters**
- **pH (value):** This information is not available.
- **Melting point/freezing point:** < -50 °C
- **Initial boiling point and boiling range:** 225 – 235 °C
- **Flash point:** > 80 °C
- **Evaporation rate:** no data available
- **Flammability (solid, gas):** not relevant (fluid)

**Explosive limits**
- **lower explosion limit (LEL):** this information is not available
- **upper explosion limit (UEL):** this information is not available

**Explosion limits of dust clouds:** not relevant

**Vapour pressure:** 5.3 Pa at 20 °C

**Density**
- 0.93 g/cm³ at 20 °C

**Vapour density:** This information is not available.

**Bulk density:** Not applicable

**Relative density:** Information on this property is not available.

**Solubility(ies):**
- **Water solubility:** this information is not available

**Partition coefficient**
- **n-octanol/water (log KOW):** 2.4 (pH value: 7, 20 °C) (ECHA)

**Auto-ignition temperature:** 390 °C - ECHA

**Decomposition temperature:** no data available

**Viscosity:** not determined

**Explosive properties:** Shall not be classified as explosive

**Oxidising properties:** none

#### 9.2 Other information
SECTION 10: Stability and reactivity

10.1 Reactivity
In case of warming: Vapours can form explosive mixtures with air.

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
No known hazardous reactions

10.4 Conditions to avoid
Keep away from heat.

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
Shall not be classified as acutely toxic.

<table>
<thead>
<tr>
<th>Exposure route</th>
<th>Endpoint</th>
<th>Value</th>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>oral</td>
<td>LD50</td>
<td>2.450 mg/kg</td>
<td>rat</td>
<td>TOXNET</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation
Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation
Shall not be classified as seriously damaging to the eye or eye irritant.

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.
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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
Frequently or prolonged contact with skin may cause dermal irritation

Other information
Substance not yet fully tested

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
The substance is readily biodegradable.
Theoretical Oxygen Demand: 2,838 mg/mg
Theoretical Carbon Dioxide: 2,891 mg/mg

<table>
<thead>
<tr>
<th>Process</th>
<th>Degradation rate</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>oxygen depletion</td>
<td>86 %</td>
<td>28 d</td>
</tr>
</tbody>
</table>

12.3 Bioaccumulative potential
Does not significantly accumulate in organisms.
n-octanol/water (log KOW) 2,4 (pH value: 7, 20 °C)

12.4 Mobility in soil
Data are not available.

12.5 Results of PBT and vPvB assessment
Data are not available.

12.6 Other adverse effects
Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

Sewage disposal-relevant information
Do not empty into drains.
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

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN number</th>
<th>(not subject to transport regulations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.2</td>
<td>UN proper shipping name</td>
<td>not relevant</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport hazard class(es)</td>
<td>not relevant</td>
</tr>
<tr>
<td></td>
<td>Class</td>
<td>-</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing group</td>
<td>not relevant not assigned to a packing group</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental hazards</td>
<td>none (non-environmentally hazardous acc. to the dangerous goods regulations)</td>
</tr>
</tbody>
</table>

14.6 **Special precautions for user**

There is no additional information.

14.7 **Transport in bulk according to Annex II of MARPOL and the IBC Code**

The cargo is not intended to be carried in bulk.

14.8 **Information for each of the UN Model Regulations**

- **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)**
  Not subject to ADR, RID and ADN.
- **International Maritime Dangerous Goods Code (IMDG)**
  Not subject to IMDG.
- **International Civil Aviation Organization (ICAO-IATA/DGR)**
  Not subject to ICAO-IATA.

### 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.
- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**
  Not listed.
  Not listed.
- **Restrictions according to REACH, Annex XVII**
  not listed
- **Restrictions according to REACH, Title VIII**
  None.
• List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list not listed

• Seveso Directive

<table>
<thead>
<tr>
<th>2012/18/EU (Seveso III)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
</tr>
<tr>
<td>-----</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

• Directive 75/324/EEC relating to aerosol dispensers

Filling batch


| VOC content | |
|-------------|-----------------
|             | 100 %           |

Directive on industrial emissions (VOCs, 2010/75/EU)

| VOC content | |
|-------------|-----------------
|             | 0 %             |

| VOC content | |
|-------------|-----------------
|             | 0 g/l           |

• 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

• Regulation 98/2013/EU on the marketing and use of explosives precursors

not listed

• Regulation 111/2005/EC laying down rules for the monitoring of trade between the Community and third countries in drug precursors

not listed

National inventories

Substance is listed in the following national inventories:

<table>
<thead>
<tr>
<th>Country</th>
<th>National inventories</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>AU</td>
<td>AICS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>CA</td>
<td>DSL</td>
<td>substance is listed</td>
</tr>
<tr>
<td>CN</td>
<td>IECSC</td>
<td>substance is listed</td>
</tr>
<tr>
<td>EU</td>
<td>ECSI</td>
<td>substance is listed</td>
</tr>
<tr>
<td>EU</td>
<td>REACH Reg.</td>
<td>substance is listed</td>
</tr>
<tr>
<td>JP</td>
<td>CSCL-ENCS</td>
<td>substance is listed</td>
</tr>
</tbody>
</table>
Voluntary safety information following the Safety Data Sheet format according to Regulation (EC) No. 1907/2006 (REACH)

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<table>
<thead>
<tr>
<th>Country</th>
<th>National inventories</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ</td>
<td>NZIoC</td>
<td>substance is listed</td>
</tr>
<tr>
<td>PH</td>
<td>PICCS</td>
<td>substance is listed</td>
</tr>
<tr>
<td>TW</td>
<td>TCSI</td>
<td>substance is listed</td>
</tr>
<tr>
<td>US</td>
<td>TSCA</td>
<td>substance is listed</td>
</tr>
</tbody>
</table>

Legend

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AICS</td>
<td>Australian Inventory of Chemical Substances</td>
</tr>
<tr>
<td>CSCL-ENCS</td>
<td>List of Existing and New Chemical Substances (CSCL-ENCS)</td>
</tr>
<tr>
<td>DSL</td>
<td>Domestic Substances List (DSL)</td>
</tr>
<tr>
<td>ECSI</td>
<td>EC Substance Inventory (EINECS, ELINCS, NLP)</td>
</tr>
<tr>
<td>IECS</td>
<td>Inventory of Existing Chemical Substances Produced or Imported in China</td>
</tr>
<tr>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>PICCS</td>
<td>Philippine Inventory of Chemicals and Chemical Substances</td>
</tr>
<tr>
<td>REACH Reg.</td>
<td>REACH registered substances</td>
</tr>
<tr>
<td>TCSI</td>
<td>Taiwan Chemical Substance Inventory</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
</tbody>
</table>

15.2 Chemical Safety Assessment

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

SECTION 16: Other information

Abbreviations and acronyms

<table>
<thead>
<tr>
<th>Abbr.</th>
<th>Description of used abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADN</td>
<td>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)</td>
</tr>
<tr>
<td>ADR</td>
<td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td>
</tr>
<tr>
<td>CLP</td>
<td>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures</td>
</tr>
<tr>
<td>CMR</td>
<td>Carcinogenic, Mutagenic or toxic for Reproduction</td>
</tr>
<tr>
<td>DGR</td>
<td>Dangerous Goods Regulations (see IATA/DGR)</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>ELINCS</td>
<td>European List of Notified Chemical Substances</td>
</tr>
<tr>
<td>GHS</td>
<td>“Globally Harmonized System of Classification and Labelling of Chemicals” developed by the United Nations</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transport Association</td>
</tr>
<tr>
<td>IATA/DGR</td>
<td>Dangerous Goods Regulations (DGR) for the air transport (IATA)</td>
</tr>
<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Dangerous Goods Code</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships (abbr. of “Marine Pollutant”)</td>
</tr>
<tr>
<td>NLP</td>
<td>No-Longer Polymer</td>
</tr>
<tr>
<td>PBT</td>
<td>Persistent, Bioaccumulative and Toxic</td>
</tr>
<tr>
<td>REACH</td>
<td>Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
</tr>
<tr>
<td>RID</td>
<td>Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)</td>
</tr>
</tbody>
</table>
Abbr. | Descriptions of used abbreviations
--- | ---
SVHC | Substance of Very High Concern
VOC | Volatile Organic Compounds
vPvB | very Persistent and very Bioaccumulative

Key literature references and sources for data
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)
- Dangerous Goods Regulations (DGR) for the air transport (IATA)
- International Maritime Dangerous Goods Code (IMDG)

List of relevant phrases (code and full text as stated in chapter 2 and 3)
not relevant.

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.