

239200

 Revision: 11.04.2011  
Printing date: 07.07.2016

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

- Product identifier
- Trade name:  
L-Carnitine  
(R)-(3-Carboxy-2-hydroxypropyl)trimethylammonium hydroxide
- Article number:  
new: 4030429      old: F-2700
- CAS Number:  
541-15-1
- Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation  
Laboratory chemicals
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Bachem AG  
Hauptstrasse 144  
CH-4416 Bubendorf  
Switzerland  
E-mail [msds@bachem.com](mailto:msds@bachem.com)  
Tel +41 58 595 2021  
Fax +41 58 595 2040
- Further information obtainable from:  
Department: Marketing
- Emergency telephone number:  
+41 44 251 51 51 (Tox Info Suisse)

## \* 02 Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS07

Skin Irrit. 2 - H315 Causes skin irritation.  
Eye Irrit. 2 - H319 Causes serious eye irritation.  
STOT SE 3 - H335 May cause respiratory irritation.

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



GHS07

- Signal word  
Warning
- Hazard statements  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.
- Precautionary statements  
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.

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- P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501a Dispose of contents/container in accordance with local/regional/ national/international regulations.
- Other hazards
  - Results of PBT and vPvB assessment
  - PBT:  
Not applicable.
  - vPvB:  
Not applicable.

### 03 Composition/information on ingredients

- Chemical characterization: Substances

<b>CAS No.</b>	<b>Description</b>
541-15-1	L-Carnitine

- Identification number(s)
- EINECS Number:  
-
- RTECS Number:  
BP2980000

### 04 First aid measures

- After inhalation:  
In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:  
Immediately wash with water and soap and rinse thoroughly.  
Seek immediate medical advice.
- After eye contact:  
Rinse opened eye for several minutes under running water. Then consult a doctor.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:  
Call a doctor immediately.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed  
No further relevant information available.
- Indication of any immediate medical attention and special treatment needed  
No further relevant information available.

### 05 Firefighting measures

- Suitable extinguishing agents:  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture  
No further relevant information available.
- Advice for firefighters
- Protective equipment:  
No special measures required.

### 06 Accidental release measures

- Personal precautions, protective equipment and emergency procedures  
Avoid formation of dust.  
Use respiratory protective device against the effects of fumes/dust/ aerosol.  
Wear protective clothing.
- Environmental precautions:  
Suppress gases/fumes/haze with water spray.
- Methods and material for containment and cleaning up:  
Pick up mechanically.

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## 07 Handling and storage

- Handling:
  - Precautions for safe handling
    - Open and handle receptacle with care.
    - Prevent formation of dust.
  - Information about fire - and explosion protection:
    - Keep respiratory protective device available.
- 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.
    - Store in dry conditions.
  - Recommended storage temperature:
    - +5 +/- 3 °C
- Specific end use(s)
  - No further relevant information available.

## 08 Exposure controls/personal protection

- Ingredients with limit values that require monitoring at the workplace:
  - Not required.
- Additional information:
  - The lists valid during the making were used as basis.
- Personal protective equipment:
- General protective and hygienic measures:
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Store protective clothing separately.
  - 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.
  - Use suitable respiratory protective device in case of insufficient ventilation.
- Protection of hands:
  - The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  - Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  - Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  - Protective gloves
- Material of gloves
  - 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.
- Eye protection:
  - Safety glasses
  - Tightly sealed goggles

## 09 Physical and chemical properties

### General Information

#### Appearance:

<b>Form:</b>	Crystalline powder
<b>Colour:</b>	White
<b>Odour:</b>	Nearly odourless
<b>Odour threshold:</b>	Not determined.
<b>Molecular Weight</b>	161,2000 g/mol

#### Change in condition

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<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	Undetermined.
<b>Flash point:</b>	Not applicable.
<b>Flammability (solid, gaseous):</b>	Not applicable.
<b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
<b>Self-igniting:</b>	Not determined.
<b>Danger of explosion:</b>	Not determined.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure:</b>	Not determined.
<b>Density:</b>	Not determined.
<b>Solubility in / Miscibility with water:</b>	at 25 °C 50,00 g/l
<b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
<b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:  
No decomposition if used according to specifications.
- Possibility of hazardous reactions  
No dangerous reactions known.
- Conditions to avoid  
No further relevant information available.
- Incompatible materials:  
No further relevant information available.
- Dangerous decomposition products:  
No dangerous decomposition products known.

## 11 Toxicological information

- Acute toxicity:  
No further relevant information available.
- Primary irritant effect:
- on the skin:  
Irritant to skin and mucous membranes.
- on the eye:  
Irritating effect.
- Sensitization:  
No sensitizing effects known.

## 12 Ecological information

- Aquatic toxicity:  
No further relevant information available.
- Persistence and degradability  
No further relevant information available.
- Behaviour in environmental systems:
- Bioaccumulative potential  
No further relevant information available.
- Mobility in soil  
No further relevant information available.

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- Additional ecological information:
- General notes:  
Not known to be hazardous to water.
- 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
- Waste disposal key:  
18 02 05
- Uncleaned packaging:
- Recommendation:  
Disposal must be made according to official regulations.

### 14 Transport information

- ADR/RID class:** -
- IMDG Class:** -
- ICAO/IATA Class:** -
- Environmental hazards:  
Not applicable.
  - Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
Not applicable.

### 15 Regulatory information

- 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: Marketing
- 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 Organisation  
EINECS: European Inventory of Existing Commercial Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
RTECS: Registry of Toxic Effects of Chemical Substances
- \* Data compared to the previous version altered.