

## CARULITE 200 4x8 mesh GranularCatalyst

Version 2.0

Revision Date 14.12.2015

Print Date 27.09.2017

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

#### 1.1 Product identifier

Trade name : CARULITE 200 4x8 mesh GranularCatalyst

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

Use of the Sub-  
stance/Mixture : catalyst

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

Company : Lehmann & Voss & Co. KG  
Alsterufer 19  
20354 Hamburg  
Germany

Telephone : 49(0)40/44197-0  
Responsible/issuing person : EHUS@lehvoss.de

#### 1.4 Emergency telephone number

Telephone : (DE): GIZ Giftinformationszentrum-Nord  
(all msds available)  
49(0)551/19240  
  
: (GB): National Poisons Inform. Service  
0844 892 0111

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### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Acute toxicity, Category 4	H332: Harmful if inhaled.
Skin irritation, Category 2	H315: Causes skin irritation.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3, Respiratory system	H335: May cause respiratory irritation.
Specific target organ toxicity - repeated exposure, Category 2	H373: May cause damage to organs through prolonged or repeated exposure.

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### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H302 + H332 Harmful if swallowed or if inhaled  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements : **Prevention:**  
P260 Do not breathe dust.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
**Response:**  
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.  
**Storage:**  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

Hazardous components which must be listed on the label:  
manganese dioxide

Copper(II) oxide

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Hazardous components

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Chemical name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
manganese dioxide	1313-13-9 215-202-6	Acute Tox.4; H332 Acute Tox.4; H302 STOT RE2; H373	40 - 70
Copper(II) oxide	1317-38-0 215-269-1	Acute Tox.4; H302 Acute Tox.4; H332 Skin Irrit.2; H315 Eye Irrit.2; H319 STOT SE3; H335 STOT RE2; H373	15 - 40

For explanation of abbreviations see section 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice : Take off all contaminated clothing immediately.  
Never give anything by mouth to an unconscious person.
- If inhaled : Remove to fresh air.  
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with soap and plenty of water.
- In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids.  
If symptoms persist, call a physician.
- If swallowed : Rinse mouth.  
If symptoms persist, call a physician.

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

- Symptoms : Lachrymation  
Redness  
irritant effects

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

- Treatment : Treat symptomatically and supportively.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
The product is not flammable, but it does support combustion.

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Unsuitable extinguishing media : High volume water jet

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

Specific hazards during fire-fighting : Hazardous decomposition products formed under fire conditions.

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

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## SECTION 6: Accidental release measures

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

Personal precautions : Wear personal protective equipment.  
Remove all sources of ignition.  
In the case of dust or aerosol formation use respirator with an approved filter.  
Avoid breathing dust.

### 6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

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

Methods for cleaning up : Use mechanical handling equipment.  
Dispose of in accordance with local regulations.

### 6.4 Reference to other sections

For personal protection see section 8., For disposal considerations see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.  
Keep container tightly closed.  
Avoid creating dust.  
Dust must be extracted directly at the point of origin.  
Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.

Advice on protection against fire and explosion : Keep away from heat and sources of ignition.

Hygiene measures : Take off all contaminated clothing immediately.  
Wash thoroughly after handling.

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

- Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.
- Advice on common storage : Keep away from oxidizing agents and strongly acid or alkaline materials.  
 Keep away from combustible materials.  
 Keep away from reducing agents.

### 7.3 Specific end use(s)

- Specific use(s) : For further information, refer to the product technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
manganese dioxide	1313-13-9	TWA	0,5 mg/m <sup>3</sup> (Manganese)	GB EH40
Further information	Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used			

### 8.2 Exposure controls

#### Engineering measures

Effective exhaust ventilation system

#### Personal protective equipment

- Eye protection : Safety glasses with side-shields conforming to EN166
- Hand protection
- Material : Protective gloves
- Remarks : As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use.  
 The suitability for a specific workplace should be discussed with the producers of the protective gloves.  
 The exact break through time can be obtained from the protective glove producer and this has to be observed.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : In case of inadequate ventilation wear respiratory protection.  
 Half mask with a particle filter P2 (EN 143)

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Protective measures : Keep away from food, drink and animal feedingstuffs.  
When using do not eat, drink or smoke.  
Avoid contact with skin, eyes and clothing.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

Appearance : granular  
Colour : black, brown  
Odour : odourless  
Bulk density : 800 - 900 kg/m<sup>3</sup>  
  
Water solubility : insoluble  
Thermal decomposition : 704 °C

#### 9.2 Other information

No data available

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

Stable under recommended storage conditions.

#### 10.2 Chemical stability

No decomposition if stored and applied as directed.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

#### 10.4 Conditions to avoid

Conditions to avoid : Keep away from heat and sources of ignition.

#### 10.5 Incompatible materials

Materials to avoid : Combustible material  
Oxidizing agents  
Reducing agents  
Aluminium  
Strong acids

#### 10.6 Hazardous decomposition products

Hazardous decomposition products : Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

**Product:**

Acute oral toxicity : No data available

Acute inhalation toxicity : No data available

##### Skin corrosion/irritation

**Product:**

Result: Skin irritation

##### Serious eye damage/eye irritation

**Product:**

Result: Eye irritation

##### Respiratory or skin sensitisation

**Product:**

No data available

##### Germ cell mutagenicity

No data available

##### Carcinogenicity

No data available

##### Reproductive toxicity

No data available

##### STOT - single exposure

No data available

##### STOT - repeated exposure

**Components:**

**manganese dioxide:**

Target Organs: Central nervous system

Assessment: May cause damage to organs through prolonged or repeated exposure.

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### Repeated dose toxicity

#### Components:

##### **manganese dioxide:**

Prolonged exposure, usually over many years, to manganese oxide fume/dust can lead to chronic manganese poisoning, chiefly affecting the central nervous system.

Chronic exposure to breathing low levels of manganese dust or fume over a long period of time can result in "manganism," a disease of the central nervous system similar to Parkinson's Disease, gait impairment, muscle spasms and behavioral changes. Frequent inhalation of dust over a long period of time increases the risk of developing asthma, chronic lung diseases, and skin irritation.

### Aspiration toxicity

No data available

### Further information

#### Product:

The usual form of chronic manganese toxicity involves the central nervous system.

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : No adverse effect has been observed in acute toxicity tests.

Toxicity to daphnia and other aquatic invertebrates : No adverse effect has been observed in acute toxicity tests.

Toxicity to algae : No adverse effect has been observed in acute toxicity tests.

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or



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very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Other adverse effects

**Product:**

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of in conjunction with appropriate waste disposal authorities and in accordance with disposal regulations.

Contaminated packaging : Dispose of in accordance with local regulations.

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## SECTION 14: Transport information

### 14.1 UN number

ADR : Not dangerous goods  
RID : Not dangerous goods  
IMDG : Not dangerous goods  
IATA : Not dangerous goods

### 14.2 Proper shipping name

ADR : Not dangerous goods  
RID : Not dangerous goods  
IMDG : Not dangerous goods  
IATA : Not dangerous goods

### 14.3 Transport hazard class

ADR : Not dangerous goods  
RID : Not dangerous goods  
IMDG : Not dangerous goods  
IATA : Not dangerous goods

### 14.4 Packing group

ADR : Not dangerous goods  
RID : Not dangerous goods  
IMDG : Not dangerous goods  
IATA : Not dangerous goods

### 14.5 Environmental hazards

ADR : Not dangerous goods  
RID : Not dangerous goods

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



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**IMDG** : Not dangerous goods

**IATA** : Not dangerous goods

### 14.6 Special precautions for user

Not applicable

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

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

Water contaminating class (Germany) : WGK 1 slightly water endangering

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out

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## SECTION 16: Other information

### Full text of H-Statements

H302 : Harmful if swallowed.  
H315 : Causes skin irritation.  
H319 : Causes serious eye irritation.  
H332 : Harmful if inhaled.  
H335 : May cause respiratory irritation.  
H373 : May cause damage to organs through prolonged or repeated exposure.

### Full text of other abbreviations

Acute Tox. : Acute toxicity  
Eye Irrit. : Eye irritation  
Skin Irrit. : Skin irritation  
STOT RE : Specific target organ toxicity - repeated exposure  
STOT SE : Specific target organ toxicity - single exposure

### Further information

Contact Point : Business Unit Filtration

# SAFETY DATA SHEET

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