

## Carbopure / activated carbon

Version number: GHS 1.0

Date of creation: 07.08.2018

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

**1.1 Product identifier**

Name of the substance	<b>Activated carbon</b>
Trade name	<b>Carbopure</b>
Registration number (REACH)	01-2119488894-16-0013
EC number	931-328-0
CAS number	7440-44-0 (100%)
<b>Other designations</b>	
Product number	CARA

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

Relevant identified uses/Uses by consumers	Activated carbon as filter granulate in marine and freshwater aquariums
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**1.3 Details of the supplier of the safety data sheet**

ARKA Biotechnologie GmbH Mühlach 53-55 90552 Röthenbach Germany  Phone: +49 (0)911 5698610 00 Fax: +49 (0)911 5698610 29 E-mail (knowledgeable person)	info@arka-biotech.de
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**1.4 Emergency number**

Emergency information service	ARKA Biotechnologie GmbH Available by phone Mon.-Fri. from 8:00-17:00 Phone: +49 (0)911 5698610 00
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### SECTION 2: Hazards identification

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 (CLP)**  
 This substance poses no physical risk. See recommendations for other products on site. This substance does not present a health hazard, except where occupational exposure limits are exceeded (see sections 3 and 8). This substance poses no environmental risk. Under normal conditions of use, no adverse environmental effects are known or foreseeable.

**2.2 Labeling elements**

**Labeling according to Regulation (EC) No. 1272/2008 (CLP)**  
 The substance is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

**2.3 Other dangers**

Not subject to labeling. Please observe the information in this safety data sheet.

### SECTION 3: Composition/information on ingredients

**3.1 Fabrics**

Substance name	Activated carbon Carbon
Index no.	not available
Registration number (REACH)	01-2119488894-16-0013
EC number	931-328-0
CAS number	7440-44-0 (100%)
Purity	≤100 %
Chemical name	AC-HDS

### SECTION 4: First aid measures

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### 4.1 Description of first aid measures

#### General notes

No special measures required.

#### After inhalation

Provide fresh air. If symptoms persist, consult a doctor.

#### After contact with the skin

Wash skin with water/shower. If symptoms persist, consult a doctor.

#### After contact with the eyes

Keep eyelids open and rinse thoroughly with clean, running water for at least 15 minutes. Remove any contact lenses if possible. Continue rinsing. Consult a doctor.

#### After ingestion by swallowing

Rinse out mouth and drink plenty of approx. 0.5L. Drink plenty of water. Consult a doctor if symptoms persist.

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

If large quantities are taken orally, constipation may occur.

### 4.3 Information on immediate medical assistance or special treatment

The effectiveness of medication can be reduced by the adsorption effect of activated charcoal.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing agent

#### Suitable extinguishing agents

Coordinate extinguishing measures with the environment . Alcohol-resistant foam. Dry extinguishing agent. Carbon dioxide. Water spray.

#### Unsuitable extinguishing agents

Water

Water jet

Do not use water to extinguish fires in enclosed areas.

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

Not flammable .

#### Hazardous combustion products

Can be released in the event of fire: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO)

### 5.3 Instructions for firefighting

Fight the fire with the usual precautions from an appropriate distance. Stay in the danger zone only with self-contained breathing apparatus. Avoid skin contact by keeping a safe distance or wearing suitable protective clothing. Collect contaminated extinguishing water separately. Do not allow extinguishing water to enter sewers and bodies of water.

## SECTION 6: Accidental release measures

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

#### Staff not trained for emergencies

Use personal protective clothing. Avoid dust formation. If dust or aerosol is generated, use respiratory protection with recognized filter type. Keep away from sources of ignition - No smoking.

#### Emergency services

Respiratory protective equipment must be worn when exposed to vapors, dusts, aerosols and gases.

Personal protective equipment: see section 8.

### 6.2 Environmental protection measures

Prevent from entering the sewage system or surface and ground water. Dispose of in accordance with official regulations.

### 6.3 Methods and material for retention and cleaning

#### Advice on how to prevent spilled materials from spreading

Pick up mechanically. Avoid dust formation. Rinse with plenty of water; treat the absorbed material according to the disposal section.

### 6.4 Reference to other sections

Safe handling: see chapter 7.

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Information on personal protective equipment: see chapter 8.

Information on disposal: see chapter 13.

### SECTION 7: Handling and storage

#### 7.1 Protective measures for safe handling

##### Recommendations

##### Instructions for safe handling:

Avoid dust and aerosol formation. Ensure sufficient air exchange and/or extraction in the working areas. Avoid contact with eyes and skin. Do not inhale dust.

##### Information on fire and explosion protection and the fire class:

No special precautions required. This product is not flammable.

#### 7.2 Conditions for safe storage, taking into account incompatibilities

Store in a cool and dry place. Store in a place protected from the weather. Keep container tightly closed in a dry, cool and well-ventilated place. Avoid moisture. Protect against water.

Suitable material for containers/systems: paper, multilayer, polyethylene (PE), steel, enameled steel. Keep away from food and drink.

##### Incompatible substances or mixtures

Do not store together with solvents and strong oxidizing agents.

#### 7.3 Specific end uses

See section 1.2

### SECTION 8: Exposure controls/personal protective equipment

#### 8.1 Parameters to be monitored

##### Additional information on limit values

The general dust limits of 10 mg/m<sup>3</sup> for the inhalable (E-dust) fraction must be observed. The lists valid at the time of preparation were used as a basis.

#### 8.2 Exposure controls and monitoring

##### 8.2.1 Protective and hygiene measures

Wash hands before breaks and at the end of work. Do not eat, drink, smoke or sniff while working. Keep away from food, drink and animal feed. Remove soiled, soaked clothing immediately. Do not inhale dust. Avoid contact with skin and eyes.

##### 8.2.2 Individual protective measures (personal protective equipment)

###### Eye/face protection

Wear safety goggles in case of heavy dust formation. Avoid contact with the eyes.

###### Skin protection

Wear light protective clothing. Remove contaminated clothing and wash before reuse.

###### Hand protection

Rubber gloves for prolonged contact.

###### Type of material

Nitrile rubber, butyl rubber, fluororubber, chloroprene.

###### Material thickness

0.11 mm.

###### Breakthrough time of the glove material

>480 minutes (permeation level: 6)

###### Other protective measures

Please observe the information provided by the shoe supplier with regard to permeability and breakthrough time. Also take into account the specific local conditions under which the product is used, such as risk of cuts, abrasion and contact time.

###### Respiratory protection

Do not inhale dust. Wear a disposable half mask with dust filtering function in accordance with standard EN

149.

Class: FFP2 Particle filter according to standard EN 143: P (white)

##### 8.2.3 Limiting and monitoring environmental exposure

Use suitable containers to avoid contamination of the environment. Prevent penetration into the sewage

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lization or into surface and ground water.

### SECTION 9: Physical and chemical properties

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

Physical state	solid (granules)
color	black
odor	odorless
<b>Other physical and chemical parameters</b>	
pH value	7.0 - 11.0
Melting point/freezing point	not determined
Spontaneous combustion	not spontaneously flammable
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gaseous)	not flammable
Explosion limits of dust/air mixtures	not determined
Vapor pressure	not determined
Density	200-700 kg/m <sup>3</sup>
Bulk density	not determined
Solubility(ies)	
Water solubility	Insoluble 0 according to OCDE
Partition coefficient	
n-octanol/water (log KOW)	
Auto-ignition temperature	No information available
Viscosity	not determined
Explosive properties	not relevant (solid) none
Oxidizing properties	none

#### 9.2 Other information

Not specified.

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No hazardous reactions will occur if handled and stored as directed.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Reacts with: Solvents and strong oxidizing agents

#### 10.4 Conditions to avoid

Avoid dust formation. Protect from heat, humidity and water. Store in a dry place.

#### 10.5 Incompatible materials

Strong oxidizing agents, flammable substances, strong acids, solvents.

#### 10.6 Hazardous decomposition products

Carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>) can be released/formed during thermal decomposition.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

**Classification according to GHS (1272/2008/EC, CLP) Acute toxicity**

Dust generated by mechanical processing (sanding, sawing, etc.) can cause irritation.

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ACTIVE COAL - HIGH SKELET DENSITY ( AC-HDS) (CAS: 7440-44-0)

Oral: LD50 > 2000 mg/kg  
Species: Rat  
OECD Guideline 423 (Acute Oral Toxicity)

Inhalative: LC50 > 64.4 mg/l  
Species: Rat  
OECD Guideline 403 (Acute Inhalation Toxicity)

### Irritant and corrosive effects:

ACTIVATED CARBON - HIGH SKELETON DENSITY ( AC-HDS) (CAS: 7440-44-0)

Corrosive effect: No observable effect.  
Species: Rabbit  
OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

### Serious eye damage/eye irritation:

ACTIVATED CARBON - HIGH SKELETON DENSITY ( AC-HDS) (CAS: 7440-44-0)

Corneal opacity: Average value = 0.00  
Species: Rabbit  
Exposure duration: 72 h  
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Iritis: Average value = 0.00  
Species: Rabbit  
Exposure duration: 72 h  
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Conjunctival redness: Average value = 0.67  
Species: Rabbit  
Exposure duration: 72 h  
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Conjunctival edema: Average value = 0.33  
Species: Rabbit  
Exposure duration: 72 h  
OECD Guideline 405 (Acute Eye Irritation / Corrosion)

### Sensitization of the respiratory tract or skin:

Skin: Not irritating  
Inhalation: No information available

ACTIVATED CARBON - HIGH SKELETON DENSITY ( AC-HDS) (CAS: 7440-44-0)

Stimulation test of the lymph nodes: Non-sensitizing  
Species: Mouse  
OECD Guideline 429 (Skin Sensitization: Local Lymph Node)

### Germ cell mutagenicity:

All studies have shown that the substance had no genotoxic potential, it can therefore be concluded that the substance is not mutagenic and does not need to be classified according to the criteria of Annex I to 1272/208/EC (CLP / EU GHS) and Annex VI to 67/548/EEC (DSD/DPD).

ACTIVATED CARBON - HIGH SKELETON DENSITY ( AC-HDS) (CAS: 7440-44-0)

Mutagenesis (in vitro): Negative  
Species: Bacteria  
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Ames test (in vitro): Negative  
Mito without metabolic activation

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Species: *S. typhimurium* TA1535

**Carcinogenicity:**

No data available.

**Reproductive toxicity:**

No data available.

**Specific target organ toxicity - single exposure:**

ACTIVATED CARBON - HIGH SKELETON DENSITY ( AC-HDS) (CAS: 7440-44-0)

Oral: C > 2000 mg/kg bodyweight

Species: Rat

### SECTION 12: Environmental information

**12.1 Toxicity**

**(Acute) aquatic toxicity**

As activated carbon is insoluble in water, no toxicity is expected.

**12.2 Persistence and degradability**

Activated carbon type HDS is a resistant material and is not susceptible to destruction by natural or enzymatic processes. Activated carbon - HDS cannot be converted into a soluble form that can be absorbed. Therefore, activated carbon cannot find its way into cells where biodegradation is conceivable.

**12.3 Bioaccumulative potential**

The substance has a very low potential for bioaccumulation in aquatic species (e.g. fish), e.g. BCF < 10 The substance has a particle size (> 0.5 µm) that does not pass through membranes and is not soluble in water. A study on bioaccumulation is therefore not feasible.

**12.4 Mobility in soil**

No data is available.

**12.5 Results of the PBT and vPvB assessment**

Not applicable.

**12.6 Other harmful effects**

According to the information available to us, the product does not have any harmful effects on the environment if handled properly and used as intended.

### SECTION 13: Disposal instructions

**13.1 Waste treatment processes**

Product residues must be disposed of in accordance with the Waste Directive 2008/98/EC and national and regional regulations .

**Information relevant for waste treatment**

Keep only in the original container. Do not mix with other waste.

**Information relevant for disposal via wastewater**

Do not allow to enter drains.

**Waste treatment of containers/packaging**

Dispose of in accordance with local regulations. Completely emptied packaging can be recycled. Contaminated packaging must be treated in the same way as the substance.

**Notes**

Please observe the relevant national or regional regulations. Waste must be separated in such a way that it can be treated separately by the municipal or national waste disposal facilities.

### SECTION 14: Transport information

**14.1 UN number**

No dangerous goods as defined by national and international transport regulations (not subject to transport regulations)

**14.2 UN proper shipping name**

not relevant

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<b>14.3 Transport hazard classes</b>	
Class	-
<b>14.4 Packaging group</b>	not relevant
<b>14.5 Environmental hazards</b>	NONE (not hazardous to the environment according to dangerous goods regulations)
<b>14.6 Special precautions for the user</b>	
Not applicable.	
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	
Not applicable.	

### SECTION 15: Legislation

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

**- Special provisions:**

No data available.

**- American standardized system for determining the hazards of the product for rescue operations (NFPA 704):**

NFPA 704, labeling: health=0 flammability=0 instability/reactivity=1 special risk=none

#### 15.2 Chemical safety assessment:

A chemical safety assessment has been carried out in accordance with the rules laid down in the REACH Directive. The annexes contain an overview of the risk management measures based on this test.

### SECTION 16: Other information

#### Abbreviations and acronyms

Abbr.	Descriptions of the abbreviations used
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW	Occupational exposure limit
CAS	Chemical Abstracts Service (database of chemical compounds and their unique key, the CAS Registry Number)
CLP	Regulation (EC) No. 1272/2008 on classification, labeling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction (carcinogenic, mutagenic or toxic for reproduction)
DFG	German Research Foundation List of MAK and BAT values, Senate Commission for the Examination of Health Hazardous Substances, Wiley-VCH, Weinheim
DMEL	Derived minimal effect level (derived exposure level with minimal impairment)
DNEL	Derived no-effect level (derived exposure level without impairment)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
Index no.	The index number is the identification code given in Part 3 of Annex VI to Regulation (EC) No 1272/2008.
KZW	Short-term value
LGK	Storage class according to TRGS 510, Germany
MARPOL	International Convention for the Prevention of Pollution from Ships (abbreviation of "Marine Pollu- tant")
PBT	Persistent, Bioaccumulative and Toxic

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PNEC	Predicted No-Effect Concentration (estimated no-effect concentration)
ppm	Parts per million (parts per million)
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals (Registration, Evaluation, Authorization and Restriction of Chemicals)
SMW	Shift average
TRGS	Technical Rules for Hazardous Substances (Germany)
TRGS 900	Occupational exposure limits (TRGS 900)
VbF	Ordinance on flammable liquids (Austria)
vPvB	Very Persistent and very Bioaccumulative (very persistent and very bioaccumulative)

### Important literature and data sources

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU-GHS)

### Disclaimer

This information is based on our current knowledge. This SDS has been compiled exclusively for this product and is intended solely for this product.