

Activated Carbon Silcarbon K814

MATERIAL SAFETY DATA SHEET

ACCORDING TO EC-REGULATION 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier	
Product Name	Activated Carbon, High Density Skeleton.
Trade name	Silcarbon K814
Chemical Name	Carbon.
Chemical Formula	C.
CAS No.	7440-44-0
EC No.	231-153-3
REACH Registration No.	01-2119488894-16-0019
1.2 Relevant identified uses of the substance or mixture and uses advised against	
Identified use(s)	Used as an adsorbent in industrial, professional and consumer setting.
Uses advised against	None known.
1.3 Details of the supplier of the Safety Data Sheet	
Company Identification	Silcarbon Activated Carbon GmbH, Mühlenweg 15, 57399 Kirchhundem, Germany Silcarbon Activated Carbon LLC, 3390 Mary Str., #116, Miami FL 33133, USA
Telephone	+49(0) 2764 93510 +1 786 210 7960
E-Mail (competent person)	info@silcarbon.com
1.4 Emergency telephone number	
Company	+49(0) 2764 93510

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture	
Regulation (EC) No. 1272/2008 (CLP)	Not classified as dangerous for supply/use.
2.2 Label elements	
Trade name	According to Regulation (EC) No. 1272/2008(CLP) Silcarbon.
Hazard pictogram(s)	None.
Signal word(s)	None.
Hazard statement(s)	None.
Precautionary statement(s)	None.
2.3 Other hazards	Contact with strong oxidizers may result in fire. The PBT and vPvB criteria of REACH Annex XIII do not apply. Wet activated carbon depletes oxygen from air and, therefore, dangerously low levels of oxygen may be encountered. The oxygen content of air in vessels containing activated carbon should be determined before entry and work procedures for potentially low oxygen areas should be followed. Spent (used) activated carbons may exhibit properties pertaining to the adsorbate.
2.4 Additional Information	None.

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3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

A porous, amorphous, high surface area adsorbent composed of largely elemental carbon with a high density skeleton.

3.1 Substances

EC Classification No. 1272/2008

Hazardous ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard pictogram(s) and Hazard statement(s)
Activated Carbon	95 - 100	7440-44-0	931-328-0	01-2119488894-16-0019	None

3.2 Additional Information

None.

4. SECTION 4: FIRST AID MEASURES



Non-powdered activated carbon has a low dustiness and no special measures are required. The measures below are based on contact with **powdered** activated carbons.

4.1 Description of first aid measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. If symptoms develop, obtain medical attention.

Skin Contact

IF ON SKIN: Remove contaminated clothing. Wash affected skin with soap and water. If skin irritation occurs, get medical advice/attention.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Ingestion

IF SWALLOWED: Rinse mouth. Give at least 0.5L of water to drink. Get medical advice/attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Contact with eyes, skin, mucous membranes: irritation. Ingestion of large amounts may cause congestion.

4.3 Indication of any immediate medical attention and special treatment needed

Unlikely to be required but if necessary treat symptomatically.

5. SECTION 5: FIRE-FIGHTING MEASURES

Non-flammable.

5.1 Extinguishing Media

Suitable Extinguishing Media

Carbon dioxide, Foam, water spray or fog.

Unsuitable Extinguishing Media

None.

5.2 Special hazards arising from the substance or mixture

Decomposes in a fire giving off toxic fumes: Carbon monoxide, Carbon dioxide. Used activated carbons may release other combustion products.

5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

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6. SECTION 6: ACCIDENTAL RELEASE MEASURES

- | | | |
|------------|--|--|
| 6.1 | Personal precautions, protective equipment and emergency procedures | Ensure adequate ventilation. Wear protective gloves. Wash hands thoroughly after handling. |
| 6.2 | Environmental precautions | None. |
| 6.3 | Methods and material for containment and cleaning up | Use vacuum equipment for collecting spilt materials, where practicable. Wash the spillage area with water. |
| 6.4 | Reference to other sections | See Also Section 8 and 13. |

7. SECTION 7: HANDLING AND STORAGE

- | | | |
|------------|---|--|
| 7.1 | Precautions for safe handling | Wet activated carbon depletes oxygen from air and, therefore, dangerously low levels of oxygen may be encountered. The oxygen content of air in vessels containing activated carbon should be determined before entry and work procedures for potentially low oxygen areas should be followed. Ensure adequate ventilation. Avoid dust generation. Wear protective gloves. |
| 7.2 | Conditions for safe storage, including any incompatibilities | Store in a dry place. Keep away from heat. |
| | Storage temperature | Ambient. |
| | Storage life | Stable under normal conditions. |
| | Incompatible materials | Strong oxidizing agents. |
| 7.3 | Specific end use(s) | Used as an adsorbent in industrial, professional and consumer setting. |

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- | | | |
|--------------|--|------------------|
| 8.1 | Control parameters | |
| 8.1.1 | Occupational Exposure Limits | |
| | Activated carbon (7440-44-0); type of exposition: respirable dust | |
| | Maximum allowable concentration at workplace (EU): 5 mg/m ³ | |
| | Short time max. allowable concentration at workplace: 10 mg/m ³ for 2 x 60 mins per shift | |
| 8.1.2 | Biological limit value | Not established. |
| 8.1.3 | PNECs and DNELs | |

DNEL	Oral	Inhalation	Dermal
Industry - Long Term	-	3 mg/m ³	-
Industry - Short term	-	3 mg/m ³	-
Consumer - Long Term	-	0.5 mg/m ³	-
Consumer - Short term	-	0.5 mg/m ³	-

No PNEC is derived as the substance is highly insoluble.

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8.2 Exposure controls

8.2.1 Appropriate engineering controls

Provide adequate ventilation. Local exhaust recommended.
 Wet activated carbon depletes oxygen from air. Therefore, low oxygen work procedures should be in place for vessels containing activated carbons.

8.2.2 Personal protection equipment

Eye/face protection



Non-powdered activated carbons: Not normally required.
 Powdered activated carbons: Wear eye protection with side protection (EN166).

Skin protection (Hand protection/ Other)



Not normally required.
 Wear suitable gloves if prolonged skin contact is likely.

Respiratory protection



Non-powdered activated carbons: Normally no personal respiratory protection is necessary.
 Powdered activated carbons: Use a half face mask with a P1 filter or better.

Thermal hazards

Not applicable.

8.2.3 Environmental exposure controls

Not applicable

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Form

Solid.

Appearance

Non-powdered porous solids.

Colour

Black.

Odour

Odorless.

Odour Threshold (ppm)

Not established.

pH (Value)

alkaline (1% aqueous solution).

Melting Point (°C)

>3.500°C

Boiling Point (°C)

Not applicable

Flash Point (°C)

Not applicable.

Evaporation rate

Not applicable.

Flammability (solid, gas) (°C)

810°C

Dust explosion class

n.a.

Max. explosion overpressure (bar)

7,2 bar (dust).

Vapor Density (Air=1)

Not applicable.

Specific Gravity

2.31

Solubility (Water)

Insoluble in water. @ pH 6.8 and 20°C

Solubility (Other)

Not available.

Partition Coefficient (n-Octanol/water)

0,78 (calc.).

Auto Ignition Temperature (°C)

> 400°C

Decomposition Temperature (°C)

Not available.

Viscosity (mPa.s)

Not applicable.

Explosive properties

Not explosive.

Oxidizing properties

Not oxidizing.

9.2 Other information

Specific product information can be derived from the technical data sheet

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10. SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Stable under normal conditions.
10.2	Chemical stability	Stable under normal conditions.
10.3	Possibility of hazardous reactions	Contact with strong oxidizing agents may result in rapid combustion/possible explosion.
10.4	Conditions to avoid	Not known .
10.5	Incompatible materials	Strong oxidizing agents in high concentration
10.6	Hazardous Decomposition Product(s)	No hazardous decomposition products known.

11. SECTION 11: TOXICOLOGICAL INFORMATION

This material is unlikely to present a significant health hazard under normal conditions of handling and use.

11.1 Information on toxicological effects

11.1.1 Substances

Acute toxicity

Ingestion

Unlikely to be hazardous if swallowed.

LD50(rat) (female) = >2000 mg/kg bw

Inhalation

Unlikely to be hazardous by inhalation unless present as a dust.

LD50(rat) = >64.4 mg/l

LC100(rat) = 235 mg/l

Skin Contact

Unlikely to cause harmful effects.

Eye Contact

Unlikely to cause harmful effects.

Skin corrosion/irritation

Unlikely to cause skin irritation.

Serious eye damage/irritation

Not classified.

Respiratory or skin sensitization

It is not a skin sensitizer.

Germ cell mutagenicity

There is no evidence of mutagenic potential.

Carcinogenicity

No evidence of carcinogenicity. No data.

Reproductive toxicity

Not classified.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Aspiration hazard

Not applicable.

11.2 Other information

None.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	No data.available
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	The substance has no potential for bioaccumulation.
12.4	Mobility in soil	Insoluble in water. The substance is predicted to have low mobility in soil.
12.5	Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
12.6	Other adverse effects	A water slurry containing large quantities of HDS carbon may display high pH values.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods	Recover or recycle if possible. Dispose of wastes in an approved waste disposal facility EU waste key number: 061302.
13.2	Additional Information	Spent activated carbon may require specific disposal considerations. Disposal should be in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous for transport.

14.1	UN number	Not applicable UN1362 is not applicable since product is steam activated.
14.2	UN Proper Shipping Name	Carbon activated.
14.3	Transport hazard class(es)	Not applicable.
14.4	Packing Group	III.
14.5	Environmental hazards	Not applicable.
14.6	Special precautions for user	See sections 6 to 8.
14.7	Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
14.8	Additional Information	None.

15. SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1	EU regulations	
	Candidate List of Substances of Very High Concern for Authorisation	Not listed.
	REACH: ANNEX XIV list of substances subject to authorisation	Not listed.
	REACH: ANNEX XVII restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not listed.
	Community Rolling Action Plan (CoRAP)	Not listed.
15.1.2	National regulations	None known.
15.2	Chemical Safety Assessment	A REACH chemical safety assessment has been carried out.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16.

This revision is a combined MSDS for powdered and non-powdered activated carbons (HDS).

LEGEND

DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
LD50	Median Lethal Dose
LC100	Absolute Lethal Concentration

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Annex to the extended Safety Data Sheet (eSDS) Not applicable.