Silcarbon Activated Carbon SC40

MATERIAL SAFETY DATA SHEET

ACCORDING TO EU-REGULATION 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No. 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals

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 SC40**
Chemical composititon	Carbon

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 14, 57399 Kirchhundem, Germany Silcarbon Activated Carbon LLC, 2889 McFarlane Rd, Miami FL 33178, USA
Telephone	+49(0) 2764 93510
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 According to Regulation (EC) No. 1272/2008(CLP)

Trade name	Silcarbon SC40.
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 form 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.

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	80 - 100	7440-44-0	931-328-0	01-2119488894-16 -0019	None

3.2 Mixture

Not applicable

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. Wetted activated carbon may cause oxygen depletion in enclosed spaces. Avoid dust generation.

5.3 Advice for fire-fighters

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

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**	Prevent entry into drains.
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 and direct sunlight.
	Storage temperature	Ambient.
	Storage life	Stable under normal conditions.
	Incompatible materials	Strong oxidising agents and Acids.
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

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Activated Carbon	7440-44-0	-	10	-	-	Graphite particulate inhalable dust
		-	4	-	-	Graphite particulate respirable dust

Source: Workplace Exposure Limit (UK HSE EH40)

8.1.2 Biological limit value Not established.

8.1.3 PNECs and DNELs

DNEL	Oral	Inhalation	Dermal
Industry - Long Term	-	3 mg/m³	-
Industry - Short term	-	3 mg/m³	-
Consumer - Long Term	-	0.5 mg/m³	-
Consumer - Short term	-	0.5 mg/m³	-

No PNEC is derived as the substance is highly insoluble.

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. Powered 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.
Powered activated carbons: Use a half face mask with a P2 filter or better.

Thermal hazards: Not applicable.

8.2.3 Environmental exposure controls: Prevent entry into drains.

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	Odourless.
Odour Threshold (ppm)	Not established.
pH (Value)	alkaline
Melting Point (°C)	>1000°C
Boiling Point (°C)	No data available
Flash Point (°C)	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Non-flammable.
Explosive limit ranges	Not applicable.
Vapour Pressure (mm Hg)	Not applicable.
Vapour Density (Air=1)	Not applicable.
Bulk Density (kg/l)	aprox 0,45-0,55 kg/l (Specific product information can be derived from the technical data sheet)
Specific Gravity (kg/l)	2.31 kg/l
Solubility (Water)	Insoluble in water.
Solubility (Other)	No data available.
Partition Coefficient (n-Octanol/water)	No data available.
Auto Ignition Temperature (°C)	> 400°C
Decomposition Temperature (°C)	Not available.
Kinematic viscosity (mPa.s)	Not applicable.
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

9.2 Other information

Information regarding physical hazard classes:	No data available
Other safety characteristics	No data avaialble

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**	Operating temperature >200°C. Keep from direct sunlight.
10.5	**Incompatible materials**	Strong oxidizing agents and Acids.
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 Information on other hazards None.

Endocrine disrupting properties Substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria as set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Other information No data available

12. SECTION 12: ECOLOGICAL INFORMATION

12.1	**Toxicity**	Low toxicity to aquatic organisms. No data.
12.2	**Persistence and degradability**	Not readily biodegradable.
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	**Endocrine disrupting properties**	Substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria as set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605
12.7	**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.
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 or ID number

Transport type	**UN number**
ADR	Not applicable
RID	Not applicable
IMDG	Not applicable
ICAO	Not applicable
ADN	Not applicable

14.2 UN Proper Shipping Name

Transport type	**UN number**
ADR	Not applicable
RID	Not applicable
IMDG	Not applicable
ICAO	Not applicable
ADN	Not applicable

14.3 Transport hazard class(es)

Transport type	**Transport hazard class / Classification code / Hazard identification code / Tunnel restriction / Labels required**
ADR	Not relevant
RID	Not relevant
IMDG	Not relevant
ICAO	Not relevant
ADN	Not relevant

14.4 Packing Group

Transport type	**UN number**
ADR	Not applicable
RID	Not applicable
IMDG	Not applicable
ICAO	Not applicable
ADN	Not applicable

14.5	**Environmental hazards**	Not applicable.
14.6	**Special precautions for user**	Wet activated carbon depletes oxygen from air. Therefore, low oxygen work procedures should be in place for vessels containing activated carbon.
14.7	**Maritime transport in bulk according to IMO instructions**	Not available

15. SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	Act of 25 February 2011 on the chemical substances and their mixtures (Journal of Laws N. 63, item 322), with further amendments. Regulation (EC) No. 1907/2006 of theEuropean Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006 (OJ L 353, 31.12.2008, p.1).
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 for this substance.

16. SECTION 16: OTHER INFORMATION

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

Revision 5 is a combined MSDS for powdered and non-powdered activated carbons (HDS).

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
STOT	Specific Target Organ Toxicity
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

Disclaimers

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Annex to the extended Safety Data Sheet (eSDS)

Not applicable.