

SAFETY DATA SHEET

Revision Date 12/20/2023

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Activated carbon

Brand : SKC Inc.

CAS-No. : 7440-44-0

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

Identified uses : Air sampling

1.3 Details of the supplier of the safety data sheet

Company : SKC, Inc.
863 Valley View Rd.
Eighty Four, PA 15330
USA

Telephone : 724-941-9701; 800-752-8472 (Mon - Fri, 8:30 a.m. - 5:00 p.m. EST)

Fax : 724-941-1369 (Mon-Fri, 8:30 a.m. - 5:00 p.m. EST)

1.4 Emergency telephone number

Emergency Phone # : CHEMTREC at 800-424-9300 (U.S./Canada); 703-741-5970 (Global)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS-US classification: Combustible Dust

Not classified as a simple asphyxiant. Product does not displace oxygen in the ambient atmosphere but slowly adsorbs oxygen from a confined space when wet. Under conditions of anticipated and recommended use, product does not pose an asphyxiation hazard.

2.2 Label elements

GHS-US labeling

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : May form combustible dust concentrations in air

2.3 Other Hazards

Other hazards not contributing to the classification : Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen deficient environment should be followed.

2.4 Unknown acute toxicity (GHS-US)

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Name	Product identifier	%
Activated Carbon	(CAS No) 7440-44-0	< 100

3.2 Mixture

Not applicable

4. FIRST AID MEASURES

4.1 Description of first aid measures

First aid measures general

If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First aid measures after inhalation

IF INHALED: Remove to fresh air and keep at rest in a comfortable position for breathing.

First aid measures after skin contact

IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes.

First aid measures after eye contact

IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing.

First aid measures after ingestion

IF SWALLOWED: Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Not expected to present a significant hazard under anticipated conditions of normal use. However, dust may cause irritation and redness of the eyes and/or irritation of the skin and respiratory system. The effects of long-term, low-level exposures to this product have not been determined.

4.3 Indication of any immediate medical attention and special treatment needed

No additional information available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray, carbon dioxide, dry chemical, foam, or sand

Unsuitable extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

Fire hazard - Dust may be combustible under specific conditions; may be ignited by heat, sparks, or flames

Explosion hazard - Dust may form explosive mixture in air.

Reactivity - No dangerous reactions known under normal conditions of use. Carbon oxides may be emitted upon combustion of material.

5.3 Advice for firefighters

Firefighting instructions

Wear NIOSH-approved self-contained breathing apparatus suitable for the surrounding fire. Use water spray or fog for cooling exposed containers. Evacuate area.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment, and emergency procedures

General measures: Evacuate area. Keep upwind. Ventilate area. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

For non-emergency personnel - No additional information available

For emergency responders - No additional information available

6.2 Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment. Product is not soluble but can cause particulate emission if discharged into waterways. Dike all entrances to sewers and drains to avoid introducing material to waterways. Notify authorities if product enters sewers or public waters.

6.3 Methods and materials for containment and cleaning up

For containment: Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust.

Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal. Minimize generation of dust. Dispose of material in compliance with local, state, and federal regulations.

6.4 Reference to other sections

No additional information available

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid dust formation. Avoid contact with skin, eyes, and clothing. Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work. Keep away from sources of ignition - No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed in a cool, dry, and well-ventilated place. Keep away from ignition sources.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Activated Carbon (7440-44-0)*	
OSHA PEL (TWA) (mg/m ³)	= 5 (Respirable Fraction) = 15 (Total Dust)

* Exposure limits are for inert or nuisance dust. No specific exposure limits have been established for this activated carbon product by OSHA or ACGIH.

8.2 Exposure controls

Appropriate engineering controls

Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas. Wet activated carbon can deplete oxygen from air in enclosed spaces. If use in an enclosed space is required, procedures for work in an oxygen-deficient environment should be followed.

Personal protective equipment

Gloves and safety glasses. If ventilation is sufficient, wear respiratory protection.

Hand protection

Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: neoprene, nitrile/butadiene rubber, polyethylene, ethyl vinyl alcohol laminate, PVC, or vinyl. Suitable gloves for this specific application can be recommended by the glove supplier.

Eye protection

Use eye protection suitable to the environment. Avoid direct contact with eyes.

Skin and body protection

Wear long sleeves and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection

Use NIOSH-approved dust/particulate respirator. Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

- | | |
|--|---|
| a) Physical state | Solid |
| b) Appearance | Granular, powder, or pelletized substance
Color: Black |
| c) Odor | Odorless |
| d) Odor threshold | No data available |
| e) pH | No data available |
| f) Relative evaporation rate
(butylacetate = 1) | Not applicable |
| g) Melting point | Not applicable |
| h) Freezing point | Not applicable |
| i) Boiling point | Not applicable |
| j) Flash point | No data available |
| k) Auto-ignition temperature | > 220 C |
| l) Decomposition temperature | No data available |
| m) Flammability (solid, gas) | > 220 C |

n) Vapor pressure	Not applicable
o) Relative vapor density at 20 C	Not applicable
p) Apparent density	0.4 to 0.7 g/cc
q) Solubility	Insoluble
r) Log Pow	Not applicable
s) Log Kow	Not applicable
t) Viscosity, kinematic	Not applicable
u) Viscosity, dynamic	Not applicable
v) Explosive properties	No data available
w) Oxidizing properties	No data available
x) Explosive limits	No data available

9.2 Other information

No additional information available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reactions known under normal conditions of use.

10.2 Chemical stability

Stable under use and storage conditions as recommended in Section 7

10.3 Possibility of hazardous reactions

None known

10.4 Conditions to avoid

Avoid dust formation, heat, and ignition sources. Exposure to high concentrations of organic compounds may cause bed temperature to rise.

10.5 Incompatible materials

Alkali metals and strong oxidizing agents

10.6 Hazardous decomposition products

Carbon monoxide (CO) and carbon dioxide (CO₂)

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Not classified

Activated Carbon (7440-44-0)	
LD50 oral rat	> 2000 mg/kg

Skin corrosion/irritation

Not classified

Serious eye damage/eye irritation

Not classified

Respiratory or skin sensitization

Not classified

Germ cell mutagenicity

Not classified

Silica: Crystalline, quartz (14808-60-7)

IARC group

1 - Carcinogenic to humans

The International Agency for Research on Cancer (IARC) has classified "silica dust, crystalline, in the form of quartz or cristobalite" as carcinogenic to humans (group 1). However, these warnings refer to crystalline silica dusts and do not apply to solid activated carbon containing crystalline silica as a naturally occurring, bound impurity. As such, we have not classified this product as a carcinogen in accordance with the U.S. OSHA Hazard Communication Standard (29 CFR §1910.1200) but recommend that users avoid inhalation of product in dust form.

Reproductive toxicity

Not classified

Specific target organ toxicity (single exposure)

Not classified

Specific target organ toxicity (repeated exposure)

Not classified

Aspiration hazard

Not classified

Symptoms/injuries

Not expected to present a significant hazard under anticipated conditions of normal use. However, dust may cause irritation and redness of the eyes and/or irritation of the skin and respiratory system. The effects of long-term, low-level exposures to this product have not been determined.

12. ECOLOGICAL INFORMATION**12.1 Toxicity**

No additional information available

12.2 Persistence and degradability

No additional information available

12.3 Bioaccumulative potential

No additional information available

12.4 Mobility in soil

No additional information available

12.5 Other adverse effects

No additional information available

13. DISPOSAL CONSIDERATIONS**13.1 Waste treatment methods****Waste treatment and disposal methods**

Vacuum or shovel material into a closed container. Dispose of in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment. Contact a carbon recycling authority; non-powdered activated carbons may be reactivated to allow recycle and reuse.

Additional information

Activated carbon is an adsorbent media; hazard classification is generally determined by the adsorbate. Consult U.S. EPA guidelines listed in 40 CFR 261.3 for more information on hazardous waste disposal.

14. TRANSPORT INFORMATION

14.1. In accordance with DOT

Not classified as hazardous for domestic land transport

UN-No. (DOT) : None on finished product

DOT NA no. : None on finished product

Proper Shipping Name (DOT) : Not regulated

Department of Transportation
(DOT) Hazard Classes : None on finished product

Hazard labels (DOT) : None on finished product

Packing group (DOT) : None on finished product

DOT Quantity Limitations
Passenger aircraft/rail
(49 CFR 173.27) : None on finished product

14.2. Transport by sea

Not classified as hazardous for water transport

IMO / IMDG

UN/NA Identification Number : None on finished product

UN-Proper Shipping Name : Not regulated

Transport Hazard Class : None on finished product

14.3. Air transport

Not classified as hazardous for air transport

ICAO / IATA

UN/NA No : None on finished product

UN-Proper Shipping Name : Not regulated

Transport Hazard Class : None on finished product

Packing Group : None on finished product

Marine Pollutant : None on finished product

14.4. Additional information

Other information : Under the UN classification for activated carbon, all activated carbons have been identified as a class 4.2 product. However, this product type or an equivalent has been tested according to the *United Nations Transport of Dangerous Goods* test protocol for a "self-heating substance" (*United Nations Transportation of Dangerous Goods, Manual of Tests and Criteria, Part III, Section 33.3.1.6 - Test N.4 - Test Method for Self Heating Substances*). It has been specifically determined that this product type or an equivalent does not meet the definition of a self-heating substance (class 4.2) or any other hazard class and, therefore, should not be listed as a DOT hazardous material.

15. REGULATORY INFORMATION

15.1. U.S. Federal regulations

Activated Carbon (7440-44-0)

All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt

Cobalt (7440-48-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory listed on United States SARA Section 313

SARA Section 313 - Emission Reporting	0.1%
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15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65

WARNING: This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, birth defects, or other reproductive harm.

Silica: Crystalline, quartz (14808-60-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	NA
Cobalt (7440-48-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	NA
Titanium dioxide (13463-67-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	NA
Aluminum oxide (1344-28-1)				
U.S. - New Jersey - Right to Know Hazardous Substance List				
U.S. - Massachusetts - Right to Know List				
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List				
Calcium sulfate (7778-18-9)				
U.S. - Massachusetts - Right to Know List				
U.S. - New Jersey - Right to Know Hazardous Substance List				
U.S. - Pennsylvania - RTK (Right to Know) List				
Silica: Crystalline, quartz (14808-60-7)				
U.S. - New Jersey - Right to Know Hazardous Substance List				
U.S. - Pennsylvania - RTK (Right to Know) List				
U.S. - Massachusetts - Right to Know List				

16. OTHER INFORMATION

NFPA health hazard	:	0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
NFPA fire hazard	:	1 - Must be preheated before ignition can occur
NFPA reactivity	:	0 - Normally stable, even under fire exposure conditions, and are not reactive with water
HMIS III Rating		
Health	:	0
Flammability	:	1
Physical	:	0
Personal Protection	:	

Disclaimer

For approved uses only. Not for drug, household, or other uses.

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SKC Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Latest Change(s): Updated SDS to bring into compliance with the GHS

Last Update: December 2023