

Safety Data Sheet

Activated Charcoal

Version: V2.0.0.1

Report No.: 80545BA-MSDS-EN

Creation Date: 2022/12/08

Revision Date: 2022/12/08

*Prepared according to GB/T 17519-2013 and GB/T 16483-2008

1 Identification of the chemical and supplier

Product identifier

Product Name	Activated Charcoal
Cat No.	80545BA
CAS No.	7440-44-0
EC No.	231-153-3
Molecular Formula	C

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	ECO Zhuo Xin Energy saving Technology (Shanghai) Company Limited
Address of the company	Building 66, No.1500, Xinfai road, Songjiang District, Shanghai
Post code	201612
Telephone number	180016533772
Fax number	021-68296806
E-mail address	zhang.hui03@eco-ceres.com.cn

Emergency phone number

Emergency phone number	180016533772
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2 Hazard(s) identification

Emergency overview

Based on available data, no known hazards.

Hazard classification according to GHS

According to GB 30000 series standards, not classified as a hazardous chemical.

GHS Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable
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Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
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◆ Storage

Storage	Not applicable
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◆ Disposal

Disposal	Not applicable
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Hazard description

◆ Physical and chemical hazards

	No information available
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◆ Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients**Substance/mixture**

	Substance
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Component	CAS No.	EC No.	Concentration (wt, %)
Carbon	7440-44-0	231-153-3	95.0

4 First-aid measures**Description of first aid measures**

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take

	precautions to protect themselves and prevent spread of contamination.
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Most important symptoms, acute and delayed

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| 1 | Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. |
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Advice for protecting the rescuer

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| 1 | Remove all sources of ignition and increase ventilation. |
| 2 | Avoid contact with skin and eyes. |
| 3 | Avoid inhalation of dusts. |
| 4 | Use personal protective equipment including respirator. |

Special note to the doctor

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| 1 | Treat symptomatically. |
| 2 | Symptoms may be delayed. |

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Dry chemical, soda ash, lime or DRY sand.
Unsuitable extinguishing media	DO NOT USE WATER, CO2 OR FOAM.

Specific hazards arising from the substance or mixture

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| 1 | Will form explosive mixtures with air. |
| 2 | Combustible, pay attention to risk of dust explosion. |
| 3 | May ignite on contact with air leading to spontaneous combustion. |
| 4 | May reignite after fire is extinguished. |
| 5 | Pay attention to danger of spontaneous combustion. |
| 6 | Development of hazardous combustion gases or vapor possible in the event of fire. |
| 7 | May expansion or decompose explosively when heated or involved in fire. |

Fire precautions and protective measures

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| 1 | As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear. |
| 2 | Fight fire from a safe distance, with adequate cover. |
| 3 | Prevent fire extinguishing water from contaminating surface water or the ground water system. |

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

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| 1 | Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| 2 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| 3 | Use personal protective equipment, do not breathe dust/fume. |

Environmental precautions

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| 1 | Prevent further leakage or spillage if safe to do so. |
| 2 | Discharge into the environment must be avoided. |

Methods and materials for containment and cleaning up

1	Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.
2	Do not touch broken containers and spills before putting on appropriate protective clothing.
3	Use clean, non-sparking tools to collect absorbed material.
4	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
5	It is recommended that emergency personnel wear dust masks and wear anti-static clothing.
6	Small spills: Collect spillage with a clean shovel and place in a clean, dry, loosely closed container to remove the container from the leak.
7	A large number of leaks: wetting with water and building a dike.
8	Prevent spills from entering water bodies, sewers, basements, or confined spaces.
9	Cut off the source of the leak as much as possible.
10	Keep leaks in a ventilated place.
11	Isolation of contaminated areas and restrictions on access.
12	It is recommended that emergency personnel wear dust masks.
13	Collect the spill with a clean shovel and place it in a clean, dry, loosely closed container and move the container away from the leak.
14	Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7 Handling and storage

Handling

1	To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
2	Use explosion proof equipment.
3	Handling is performed in a well ventilated place.
4	Wear suitable protective equipment.
5	Avoid contact with skin and eyes.
6	Keep away from heat/sparks/open flames/ hot surfaces.

Storage

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

Control parameters

Occupational Exposure limit values	No relevant regulations
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◆ Biological limit values

Biological limit values	No relevant regulations
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◆ Monitoring methods


1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
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2 GBZ/T 300 series standard Determination of toxic substances in workplace air.

Engineering controls

- 1 Ensure adequate ventilation, especially in confined areas.
- 2 Ensure that eyewash stations and safety showers are close to the workstation location.
- 3 Use explosion-proof electrical/ventilating/lighting/equipment.
- 4 Set up emergency exit and necessary risk-elimination area.

Personal protection equipment

General requirement	
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.
Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, wear dust proof mask or gas defence mask.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties

Physical and chemical properties

Appearance	Solid
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	3500
Initial boiling point and boiling range(°C)	4000
Flash point(Closed cup,°C)	Not applicable
Evaporation rate	Not applicable
Flammability	No information available
Upper/lower explosive limits[% (v/v)]	Upper limit: No information available; Lower limit: No information available
Vapor pressure	Not applicable
Vapor density(Air = 1)	Not applicable
Relative density(Water=1)	1.8~3.51
Solubility	Insoluble in water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	> 315
Decomposition temperature(°C)	No information available
Viscosity	Not applicable

10 Stability and reactivity

| Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	No information available.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Metal acetylide, halogen, interhalogen, halogen oxides, nitric acid, nitrous oxide, nitrates, nitrites, halogen oxyacid salts, chromates, permanganates, inorganic peroxides, metal oxides and peroxyformic acid.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information**| Acute toxicity**

Acute toxicity	No information available
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| Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
Carbon	Not Listed	Not Listed

| Others

Carbon(Component)	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Reproductive toxicity(additional)	Based on available data, the classification criteria are not met

12 Ecological information**| Acute aquatic toxicity**

Acute aquatic toxicity	No information available
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| Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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| Persistence and degradability

Persistence and degradability	No information available
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| Bioaccumulative potential

Bioaccumulative potential	No information available
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Mobility in soil

Mobility in soil	No information available
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Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Carbon	Insufficient information, temporarily unable to evaluate


13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label and Mark

Transporting Label	
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IMDG-CODE

UN number	1362
UN proper shipping name	CARBON, ACTIVATED
Transport hazard class	4.2
Transport subsidiary hazard class	None
Packing group	III
Marine pollutant (Yes or no)	No

IATA-DGR

UN number	1362
UN proper shipping name	CARBON, ACTIVATED
Transport hazard class	4.2
Transport subsidiary hazard class	None
Packing group	III

UN-ADR

UN number	1362
UN proper shipping name	CARBON, ACTIVATED
Transport hazard class	4.2

Transport subsidiary hazard class	None
Packing group	III

Others

Methods of packing	Threaded glass, metal cover pressure bottles, plastic bottles or metal (cans) outside the ordinary wooden box etc. Packaging as recommended by manufacturer.
Precautions for transport	Shipment of the goods vehicle exhaust pipe must have fire retardant devices. Transportation vehicles and boats must be dry and have good rain facilities. Strictly prohibited shipping or transportation with oxidants, acids, food and food additives etc. Transit should be anti-exposure, rain, high temperature. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

15 Regulatory information

International chemical inventory

Component	EC inventory	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIIC	ENCS
Carbon	√	√	√	√	√	√	√	√	√

[EC inventory]	European Inventory of Existing Commercial Chemical Substances
[TSCA]	United States Toxic Substances Control Act Inventory
[DSL]	Canadian Domestic Substances List
[IECSC]	China Inventory of Existing Chemical Substances
[NZIoC]	New Zealand Inventory of Chemicals
[PICCS]	Philippines Inventory of Chemicals and Chemical Substances
[KECI]	Korea Existing Chemicals Inventory
[AIIC]	Australian. Inventory of Industrial Chemical (AIIC)
[ENCS]	Japan Inventory of Existing & New Chemical Substances

Chinese chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Carbon	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×

- [A] Catalog of Hazardous Chemicals(2015 Edition), Notice 5th 2015, the former China State Administration of Work Safety together with the Ministry of Industry and Information Technology, etc.
- [B] List of Toxic Chemicals Restricted in China, Notice 60th 2019, the Ministry of Ecology and Environment, Ministry of Commerce, General Administration of Customs.
- [C] List of Ozone Depletion Chemicals Controlled to be Imported/Exported in China (First to Sixth batches) , Notice from 2000 to 2012, the former Ministry of Environmental Protection of PRC.
- [D] Catalog of Hazardous Chemicals for Priority Management (First and Second batches) , Notice 95th, 2011, Notice 12th 2013, China State Administration of Work Safety.
- [E] Catalog of Hazardous Chemicals for Environmental Management, Notice 33th 2014, The former Ministry of Environmental Protection.
- [F] List of Various Monitoring Chemicals, 52th 2020, the Ministry of Industry and Information Technology.
- [G] List of Priority Controlled Chemicals (the First batch), 83th 2017, the former Ministry of Environmental Protection, Ministry of Industry and Information Technology, the former National Health And Family Planning Commission.
- [H] Catalog of Specially Controlled Hazardous Chemicals (First Edition), 1st 2020, the Ministry of Emergency

- Management, Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Transport.
- [I]** List of Toxic and Harmful Water Pollutants (First batch), 28th 2019, the Ministry of Ecology and Environment, National Health Commission.
- [J]** Catalog of Highly Toxic Chemicals, Notice 142th 2003, the former Ministry of Health of P.R.China.
- [K]** Dangerous Chemicals Directory Used to Manufacture Exploder (2017 Edition), Notice 11th May. 2017, Ministry of Public Security of P.R.China.
- [L]** Catalog of Stupefacient and Psychotropic Substances(2013 Edition), Notice 230th 2013, China Food and Drug Administration.
- [M]** Catalog of Classification and Varieties of Precursor Chemicals, 120th 2017, series of announcements issued by the Ministry of Public Security and other ministries and commissions.
- [N]** Catalog of Import and Export Management of Precursor Chemicals, 7th 2006, the Ministry of Commerce.
- [O]** International Verification of Precursor Chemicals Management Catalog, 8th 2006, the Ministry of Commerce, Ministry of Public Security.

Note:

- “√” Indicates that the substance included in the regulations.
- “x” No data or not included in the regulations.

16 Other information

Information on revision

Creation Date	2022/12/08
Revision Date	2022/12/08
Reason for revision	-

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.chemportal.org/chemportal/substancesearch/index.action>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CO DE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

Disclaimer

This Safety Data Sheet (SDS) was prepared according to GB/T 16483-2008 and GB/T 17519-2013. The data

included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.