

**Powder & Granular Wood
Based Activated Carbon**

Material Safety Data Sheet

Section 1 – Identification of the Substance / Preparation, and of the Company

1.1: Product Identifier

Trade Name: Wood Based Activated Carbon
Substance Name: Activated Carbon, CAS 7442-44-0 EC Number: 231-153-3

1.2: Identified uses of the substance or mixtures

1.2.1 Uses: Inorganic source of carbon, filler, liquid and/or gaseous adsorption trains, decolorization, Filtration, other processes and applications compatible with cellulosic-based activated carbon.

1.2.2 Uses Advised Against: For industrial use only, not for food, drug, or cosmetic applications.

1.3: Supplier Information

Company/Manufacturer: **EcoFriend Carbon Pvt. Ltd.**
Survey No. 676. Opp. Dada Bhagvan Temple,
Surendranagar - Rajkot Highway,
Surendranagar Gujarat - 363020
Telephone: +91-8799335345
Email Address: quotation@ecofriendcarbon.com
Issued Date: 15 November, 2022

1.4: Emergency Telephone Number

Contact No. – 8799335345

Section 2: Hazards Identification

2.1: Classification of substance

Wood based activated carbon is not a hazardous substance.

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2.2: Label Elements

Wood based activated carbon is not a hazardous substance, no label elements are required

Section 3 – Composition/Information on Ingredients:

Chemical Composition: Wood Based
Activated Carbons 100%
CAS # 7440-44-0
EC # 264-864-4
Molecular Weight: 12.0

Section 4 – First Aid Measures

4.1.1	Remove patient to particulate-free environment. Wear approved dust mask to Inhalation avoid breathing dust. Seek medical attention if irritation persists.
4.1.2 Skin Contact	Wash with mild soap and warm water: Wood Based activated carbon is not chemical irritant.
4.1.3 Eye Contact possible.	Rinse with tepid water until eyes are clear of particulates. Seek medical attention if irritation persists. Mechanical/abrasion related irritation is possible.
4.1.4 Medical Ingestion	Get immediate medical attention. Do not induce vomiting unless directed by personnel. Wood activated Carbon is not known to be toxic by ingestion. However, ingestion of large quantities of AC may cause digestive system blockage.
4.2	Most important symptoms and effects, both acute and delayed: No Data Available
4.3	Indication of any immediate medical attention and special treatment needed: If patient exhibits shortness of breath, choking, powder inundated eyes or mouth; immediate medical attention may be required.

Section 5 – Fire Fighting Measures

5.1 Extinguishing Media	Dry chemical extinguisher, water, sand, limestone powder,
5.2 Special Hazards	Activated carbon can absorb atmospheric oxygen, especially when wet, resulting in a reduced local oxygen concentration. In confined spaces this may result in local levels of oxygen below that required to support life. Under these conditions immediate asphyxiation and death is possible. Activated carbon presents a confined-spaces hazard with respect to oxygen depletion. Activated carbon may react exothermically with certain organic compounds, ketones for example.
Products of Combustion	Carbon dioxide (CO ₂), Carbon monoxide (CO)
5.3 Advice for Fire Fighters:	Use self-contained air pack, gloves, safety goggles

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5.4 Additional Information: USA NFP Rating 010

Section 6 – Accidental Release Measures

	Wear approved dust mask, safety goggles, and conventional work gloves.
Methods for Cleaning Up:	Conventional Sweep or vacuum. Avoid creating dusting conditions
6.1 Personal precautions, protective equipment and emergency procedures	
6.1.1 For non-emergency personnel: Wear approved dust mask, safety goggles, and conventional work gloves. Use conventional cleanup techniques and avoid creating dust. Vacuum is preferred over sweeping. Be cautious of slip hazard on wet or dry pedestrian surfaces. Wear a dust mask/respirator to reduce the change of inhaled dust.	
6.1.2 For emergency responders: Wear approved dust mask, safety goggles, and conventional work gloves. Same methodology as for non-emergency personnel (sec 6.1.1)	
6.2 Environmental Precautions: Wood Based activated carbon is insoluble and will not pose any soluble ion hazards to the environment. However, good housekeeping practices should be followed and spilled material should be cleaned up, and disposed of in an appropriate manner.	
6.3 Methods and material for containment and clean up: No special containment needed other than conventional vacuuming and waste containment. Avoid creating dust.	
6.4 Reference to other sections: Not needed	
6.5 Additional information: Not needed	

Section 7 – Handling and Storage

7.1 Precautions for safe handling

7.1.1 Handling Use conventional methods, but avoid dusting conditions. Provide sufficient exhaust ventilation in areas where dust is created. Wear suitable respiratory protection. Keep powder from contacting eyes. Activated carbon can absorb atmospheric oxygen, especially when wet, resulting in a reduced local oxygen concentration. In confined spaces this may result in local levels of oxygen below that required to support life. Under these conditions immediate asphyxiation and death is possible. Activated carbon presents a confined-Spaces hazard with respect to oxygen depletion.
7.2 Conditions for safe storage, including any incompatibilities.
Storage: Store all carbonaceous materials in a dry location. Keep packaging closed or covered. Store away from heat or flame.
Incompatibilities: Activated carbon is incompatible with all oxidizing agents and certain organic substances.
Dust Explosibility Hazards: Very finely divided activated carbon powder poses a slight risk of dust explosion hazard: Dust class ST1, MIE greater than 10 J (very low hazard of spark ignition)

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Section 8 – Exposure Controls/ Personal Protection:

8.1 Control parameters

8.1.1 Occupational exposure limits				
Component	CAS No.	%	ACGIH TWA	Control Reference
Wood Based activatedcarbon	7440-44-0	10 0	3.0 mg/m ³ Respirable dust 10.0 mg/m ³ Inhalable dust	2014 ACGIH TLV Handbook: Recommendations for insoluble or poorly soluble materials of low toxicity
Engineering Measures	Use adequate dust collection to maintain dust levels below the control or recommended values.			
Respiratory Protection	Approved dust mask, type N95 recommended.			
Eye Protection	Conventional safety glasses or goggles.			
Skin Protection	Conventional work gloves and clothing.			
Additional	Be aware of confined space hazards(see section 7.1.1)			

8.2 Exposure controls

8.2.1 Appropriate engineering controls: Use adequate dust collection to maintain dust levels below the control or recommended values.
8.2.2 Personal protective equipment
8.2.2.1 Eye/Face Protection: Wear laboratory goggles, or full side shielded safety glasses.
8.2.2.2 Skin Protection: Conventional work gloves and clothing.
8.2.2.3 Respiratory Protection: Approved dust mask, type N95 recommended.
8.2.3 Environmental exposure controls: Wood based activated carbon is inert and insoluble. To the best of our knowledge, wood based activated carbon does not present any environmental hazards. No special environmental exposure controls, other than standard practices for dust and spill control, are required. "Used" Activated carbon may have toxicity properties similar to the adsorbate.

Section 9 – Physical and Chemical Properties: 9.1 Information on basic physical and chemical properties

Color:	Gray to Black	Material State	Solid, granular or powder
Odor	None		
Boiling Point:	NA	Melting Point	Sublimates at 3652C
Specific Gravity	1.5-1.9	Vapor Density	Not applicable
Vapor Pressure (mmHg)	NA	% Volatile (By Wt.)	0-8% (non-VOC)
Solubility in Water	Insoluble	Evaporation Rate:	Not applicable
pH	9-11	Auto Ignition	Above 500 °C
Decomposition Temp	Oxidizes above 400C	Dust Explosion class	ST1=KST>0-200 bar m/s, MIE above 10 J.
Flash Point	NA Solid substance with very high melting point.		

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Section 10 – Stability and Reactivity

10.1 Reactivity	Wood based activated carbon is non-reactive under ambient conditions.
10.2 Stability	Stable. Will not polymerize or self-react spontaneously.
10.3 Possibility of hazardous reactions	None known
10.4 Conditions to Avoid	Avoid contact with oxidizing agents. Wood based activated carbon will begin to oxidize at temperatures above 400 C.
10.5 Incompatible materials	Oxidizing agents. Activated carbon may react exothermically with certain organic compounds, ketones for example
10.6 Hazardous products of decomposition	Carbon Dioxide (CO ₂), Carbon Monoxide (CO)
Flammable Limits(% by Vol.)	LEL and UEL values not available: Minimum Ignition Energy (MIE) greater than 10 joules. When exposed to extremely high energy ignition sources very finely divided wood based activated carbon powder can form explosive mixtures with air. Avoid contact between wood based activated carbon dust clouds and high energy ignition sources.

Section 11 – Toxicological Information

11.1 Information on toxicological effects

Acute toxicity: Data/information on acute toxicity of wood based activated carbon is not available. This material has low toxicity and is not expected to have any acute toxicity.

Toxicity: LD₅₀/Oral/Rat/ > 4600mg/kg.

STOT-single exposure: Not available.

STOT-repeated exposure: Not available

Aspiration hazard: Solid substance. Based on available data the classification criteria are not met.

Symptoms related to the physical, chemical and toxicological characteristics.

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classification criteria are not met. Symptoms related to the physical,

chemical and toxicological characteristics

In case of ingestion: wood based activated carbon is non-toxic and is not

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expected to be an ingestion hazard. In case of skin contact: Mechanical irritation only is expected.

In case of inhalation: Usual signs after inhalation of poorly soluble dusts with low toxicity are the only effects expected. No symptoms are expected if relevant occupational exposure levels are complied with. In situations of repeated excessive lung overload due to a high airborne concentration of particles of respirable size for extended periods of time pneumoconiosis may develop. See section 4 for first aid measures.

In case of eye contact: No irritation other than mechanical irritation is expected. No human data on effects after eye contact is available. See section 4 for first aid measures.

Section 12 – Ecological Information

12.1 Toxicity:	Wood based activated carbon is inert and insoluble. To the best of our knowledge, wood based activated carbon does not present any significant environmental hazards.
12.1.1 Aquatic Toxicity:	Wood based activated carbon is not water soluble and does not present a soluble-ion hazard. Fine wood based activated carbon particles suspended in natural water bodies may be harmful to organisms sensitive to suspended solids.
12.1.2 Sediment toxicity:	None known.
12.1.3 Terrestrial toxicity:	None known.
12.2 Persistence and degradability:	Wood based activated carbon is a reduced form of carbon and will not degrade further under normal conditions. This form of carbon is stable, unreactive in water under ambient conditions, and is insoluble.
12.3 Bioaccumulation potential:	There is no evidence indicating that wood based activated carbon is bio accumulative.
12.4 Soil Mobility:	Wood based activated carbon is not expected to have mobility in soil as it is an insoluble, inorganic substance.
12.5 PBT and vPvB assessment:	Wood based activated carbon is not a persistent bio accumulative and toxic substance.
12.6 Other adverse effects:	None known. Wood based activated carbon has no ozone depleting potential.

Section 13 – Disposal Considerations:

Dispose of in a manner which conforms to local, state and Federal regulations.

Wood based activated carbon is a reduced form of carbon. Wood based activated carbon is non-hazardous but disposal of waste should be handled in a responsible manner. Wood based activated carbon is a form of elemental carbon so it is not biodegradable.

Provision of a European Waste Catalog, waste code number, should be handled in agreement with the regional waste disposal company.

Packaging should be completely emptied of contents and disposed of in a manner specified by the recycler/regional disposal contractor. Dust formation from packaging residues should be avoided. Store empty packaging in a suitable receptacle

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Section 14 – Transport Information

14.1 UN Number	Not applicable
14.2 UN Proper shipping name	Not applicable
14.3 Transport hazard class	Not applicable
14.4 Packing Group	Not applicable
14.5 Environmental hazards	None known
Marine Transport	Not classified as a hazardous material
Land Transport	Not classified as a hazardous material
Air Transport	Not classified as a hazardous material per IATA
Transport Label Required	No label required
Additional Transport Information	Note that a representative sample of this activated carbon material was selected and tested per UN test methods/UN Recommendation of the Transport of Dangerous Goods, 9th Edition for “self-heating” properties. Testing results indicated that this material has passed the "TEST FOR SELF HEATING SUBSTANCES" as reflected in the UJ\J Manual of Tests and Criteria as <u>a non self-heating substance</u> . As a result of this testing no UN number is required for this non-hazardous activated carbon product (Reference: RD 18010)

Section 15 – Regulatory Information

15.1 Regulatory Status and Inventories

Not Classified	
Inventory Information:	
EEC EINECS	#231-153-3
US TSCA	Yes
Canada DSL	Yes
Canada NDSL	No
Australian AICS	Yes
Korean ECL	Yes
Asia PAC	Yes
PICCS	Yes
New Zealand NZLoC	Yes
HSNO Approval	HSR001271
REACH: On list of pre-registered substances	
RoHS: Wood based activated carbon is compliant with the EU RoHS directive	
WEEE: Wood based activated carbon is compliant with the EU waste electrical and electronic equipment directive	
15.2 Chemical Safety Assessment: For this substance a chemical safety assessment is not required	

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Section 16 – Other Information

Abbreviations Used:

ACGIH TWA American Council of Government and Industrial Hygienists Time

Weighted Average value.CAS Chemical Abstracts Service

NA Not applicable

N.O.S. Not otherwise specified

BW Body weight

Definitions:

Adsorbate: the substance adsorbed (or absorbed) into the activated carbon surface.

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