"CLEANING THE WORLD WITH ACTIVATED CARBON"



SAFETY DATA SHEET

Section 1 - Identity

Identity (As Used on Label and List): GC Activated Carbon (Including, but not limited to GC C-40, GC 4 x 8B, GC 4 x 8S, GC 6 x 12, GC 6 x 12S, GC 8 x 30, GC 8 x 30AW, GC 8 x 30S, GC 8 x 30SAW, GC 12 x 40, GC 12 x 40AW, GC 12x40SAW, GC 20 x 50, GC 20 x 50S, GC Powdered, GC WDC activated carbons)

Manufacturers Name: General Carbon Corporation 33 Paterson Street Paterson, NJ 07501 Tel: (973)523-2223 www.generalcarbon.com Date Prepared: February 16, 2017

Section 2 - Hazardous Identification

2.1 GHS-US Classification

Eye Irritation 2B H320 STOT SE 3 H335

Hazards not otherwise classified: Combustible dust. May form combustible dust concentrations in air. All powdered activated carbons are classified as weakly explosive (Dust explosion class St1): Given the necessary conditions of a strong ignition source, right concentrations of airborne carbon dust, adequate oxygen levels, and confinement, the potential for a deflagration event exists. A combustible dust hazard assessment and employee training should be carried out. See sections 7 and 9 for further information on combustible dust precautions.

2.2 Label Elements



Hazard Pictograms

Signal word (GHS-US) Hazard Statements

Precautionary statements (GHS-US)

- : Warning
- : H320- Causes eye irritation
- : H335- May cause respiratory irritation
- : P261- Avoid breathing dust
- : P264- Wash thoroughly after handling
- : P271- Use in well-ventilated area
- : P280- Wear protective gloves/clothing/eye & face protect
- : P304&340: IF INHALED: Remove person to fresh air

: ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	P305&351&P338: If in ey for several minutes. Rem easy to do so. Continue r P312- Call Poison Contro P403& P233- Store in we P405- Store locked up P501- Dispose of contain	res, Rinse caut ove contact le insing. I Center/Docte II-ventilated p er to appropr	tiously with water enses if present and or if you feel sick place. Keep container tightly closed iate receptacle
<u>2.3 Other Hazards</u>			
2.4 Unknown acute toxicity (CHS US)			
No data available			
Section 3: Composition/information on in	ngredients		
3.1 Substances			
Not applicable			
<u>3.2 Mixture</u>	- · - ··	- /	
Name	CAS #	%	GHS_US classification
Carbon	7440-44-0	100	Not classified
Section 4 – First Aid Measures			
4.1 Description of first aid measures			
First aid after inhalation	Remove person to fresh air. If not breathing, administer CPR or artificial respiration. Get immediate medical attention.		
First aid after skin contact	If skin reddening or irritation develops, seek medical attention		
First aid after eye contact	Immediately flush If irritation persist	eyes with ple s. get medical	nty of water for at least 15 minutes. attention.
First aid after ingestion	If the material is s DO NOT induce vo	wallowed, get omiting unless	immediate medical attention or advice. directed to do so by medical personnel.
4.2 Most important symptoms and effects	, both acute and delayed	<u>1</u>	
Symptoms/injuries after inhalation	May cause respira	tory irritation	
Symptoms/injuries after skin contact	May cause skin irr	itation	
Symptoms/injuries after eye contact	Causes serious eye	e damage	
Symptoms/injuries after ingestion	May be harmful is	swallowed	
4.3 Indication of any immediate medical a	ttention and special trea	tment needeo	<u>t</u>
No additional information available.			
Section 5: Firefighting measures 5.1 Extinguishing media			
Suitable extinguishing media	If involved with fir	e, flood with	plenty of water
Unsuitable extinguishing media	None		
5.2 Special hazards arising from substance	or mixture		
Fire hazard	None known		
Explosion hazard	None known		
Reactivity	Contact with stror may result in fire.	ng oxidizers su	ich as ozone, liquid oxygen, chlorine, etc.
5.3 Advice for firefighters			
Protection during firefighting	Firefighters should	d wear full pro	otective gear

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

General measures	Avoid contact with the skin and eyes	
6.1.1 For non-emergency personnel No additional information available		
<u>6.1.2 For emergency responders</u> No additional information available		
6.2 Environmental precautions None		
6.3 Methods and material for containme	nt and cleaning up	
For containment	If possible, stop flow of product	
Methods for cleaning up	Shovel or sweep up and put in closed container for disposal	
6.4 Reference to other sections No additional information available		
Section 7: Handling and storage		
Precautions for safe handling	Avoid contact with eyes. Wet activated carbon removes oxygen from air causing severe hazard to workers inside carbon vessels or confined spaces	

7.2 Conditions for safe storage, including any incompatibilities

Protect containers from physical damage. Store in dry, cool, wellventilated area. Store away from strong oxidizers, strong acids, ignition sources, combustible materials, and heat. An adequate air gap between packages is recommended to reduce propagation in the case of fire.

Handling: A hazard assessment should be carried out. As with all finely divided materials, ground all transfer, blending, and dust collecting equipment to prevent static discharge. Remove all strong ignition sources from material handling, transfer, and processing areas where dust may be present or accumulate. Practice good housekeeping. Excessive accumulations of dust or dusty conditions can create the potential of secondary explosions. Inspection of hidden surfaces for dust accumulation should be made routinely. If possible, eliminate the pathways for dust to accumulate in hidden areas. Fine carbon dust may penetrate electrical equipment and cause electrical shorts. Where dusting is unavoidable, dust-proof boxes and regular electrical line maintenance are recommended. Refer to NFPA standards 654 for guidance.

Caution employees-no smoking in carbon storage and handling areas. Carbon is difficult to ignite, however, cutting and welding operations should be carried out using hot work permit systems where precautions are taken not to ignite carbon, which may smolder undetected.

7.3 Specific end use(s) No additional information available

Storage conditions

Section 8: Exposure controls/ personal protection

8.1 Control parameters

No additional information available

8.2 Exposure controls

Appropriate engineering controls : Lo

Hand Protection Eye Protection Skin and body protection Respiratory protection : Local exhaust and general ventilation must be adequate to meet exposure standards

- : None required under normal product handling conditions
- : safety glasses
- : Wear suitable working clothes

: If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Particulate
Color	: Black
Odor	: No data available
Odor threshold	: No data available
Ph	: No data available
Relative evaporation rate	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor density @ 20 deg C	: No data available
Relative Density	: 28-33 lb/ cubic foot
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

Combustible dust- These products may contain combustible dusts. May form combustible dust concentrations in air. All powdered activated carbons are weakly explosive. No specific information on these carbons are available.

Typical combustible dust data for a variety of activated carbons:

Kst values reported between 43-113 (various sources).

Dust explosion class St1 (Kst values < 200 are Class St1-weakly explosive).

MEC (minimum explosible concentration) in air 50 and 60 g/m₃ (two reports)

Volatile content (by weight): < 8% ASTM D3175-11 (Watercarb)

MIT (minimum ignition temperature) values reported between 400-680°C (752-1256°F) (four reports)

Maximum Absolute Explosion pressure values reported between 6.0-8.6 bar (four reports)

<u>9.2 Other information</u> No additional information available

Section 10: Stability and reactivity

10.1 Reactivity

Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, etc. may result in fire

<u>10.2 Chemical stability</u> Stable under normal conditions

<u>10.3 Possibility of hazardous reactions</u> Will not occur

<u>10.4 Conditions to avoid</u> None

<u>10.5 Incompatible materials</u> Strong oxidizing and reducing agents such as ozone, liquid oxygen or chlorine.

10.6 Hazardous decomposition products

Carbon monoxide may be generated in the event of a fire.

Section 11: Toxicological information

11.1 Information on toxicological effects

ot classified

Carbon (7440-44-0)	
LD50 oral rat	: >10000 mg/kg
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes eye irritation
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity	: May cause respiratory irritation (single exposure)
Specific target organ toxicity	: Not classified (repeated exposure)
Aspiration hazard	: Not classified

Section 12: Ecological Information

<u>12.1 Toxicity</u> No additional information available

<u>12.2 Persistence and degradability</u> No additional information available

<u>12.3 Bioaccumulative potential</u> No additional information available

<u>12.4 Mobility in soil</u> No additional information available

12.5 Other adverse effects

No additional information available

Section 13: Disposal concerns

<u>13.1 Waste treatment methods</u> Waste Disposal recommendations

: Dispose of contents/container in accordance with local/ regional/ international regulations

Section 14: Transportation information

In accordance with DOT/ADR/RID/ADNR/IMDG/ICAO/IATA

<u>14.1 UN Number</u> Not applicable. See Note 1 below.

<u>14.2 UN proper shipping name</u> Not applicable

Note 1: Under the UN classification for activated carbon, all activated carbons have been identified as a class 4.2 product. However, This product 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) and it has been specifically determined that this product 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 hazardous material. This information is applicable only for the Activated Carbon Product identified in this document.

Section 15: Regulatory information

15.1 US Federal regulations

Carbon (7440-44-0) Listed on the United States TSCA inventory

<u>15.3 US State regulations</u> No additional information available

Section 16: Other information

Full text of H-phrases:

Eye Irrit. 2B	Serious eye damage/eye irritation Category 2B
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H335	May cause respiratory irritation

NFPA®



NFPA health hazard : 1-Exposure could cause irritation but only minor residual injury even if no treatment is given NFPA fire hazard : 1- Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur (e.g. mineral oil). Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F)

NFPA reactivity

: 0- Normally stable, even under fire exposure conditions, and are not reactive with water

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