

Material Safety Data Sheet

U.S. Department of Labor
Occupational Safety and Health Administration
This form is consistent with ANSI standard for
preparation of MSDS's in accordance with
OSHA's Hazard Communication Standard,
29 CFR 1910.1200.

Product Type: KE 8X14	
Product Code: 7595	Profile No: 2
Effective Date: August 27, 2010	Supersedes:

SECTION I - PRODUCT AND COMPANY INFORMATION

Product Name	Activated Carbon	Activated Carbon (Coconut Based)		
Product Use	Used according to	Used according to manufacturer's recommendation		
Company Identification (USA	A) P.O. Box 717 Pittsburgh, PA 15	Calgon Carbon Corporation		
Telephone Number(s)	Information	412-787-6700		
	Emergency	412-787-6700		
Company Identification (Europe)	Zoning Industriel of B-7181 Feluy, Bel	de Feluy		
Telephone Number(s)	Information	32 64 51 18 11		
	Emergency	32 64 51 18 11		
Date Prepared	Signature of Preparer			
December 7, 2010	(optional)			

SECTION II - HAZARD(S) IDENTIFICATION

OSHA Regulator	y Status	:	Not regulated	
HMIS Ratings:	Health		0	4 = Extreme/Severe
(NFPA)	Flammab	oility	1	3 = High/Serious 2 = Moderate
	Reactivity	y	0 1 = Slight	
	Special			0 = Minimum W = Water Reactive OX = Oxidizer
Protective Equip	ment :		Safety glasses with side shields or goggles, gloves, long sleeve shirt of ab coat, long pants recommended.	
Health Effects:		See	ee Section IV	
Environmental E	ffects:	See	ee Section XII	

SECTION III - COMPOSITION /INFORMATION ON INGREDIENTS

Nonhazardous components are listed at 3% or greater; acute hazards are listed when present at 1% or greater and chronic hazards are listed when present at 0.01% or greater. This is not intended to be a complete compositional disclosure.

Chemical Identity (% by Wt)	Common Name (Ingredient / Component)	CAS No	Impurities
100	Activated Carbon (Coconut based)	7440-44-0	None

GHS Classification:

Hazard Symbol	Hazard / Category	Warning		
	Eye Irritation Category 2B Respiratory Irritation Category 3	Contact may cause eye irritation. Dust may be slightly irritating to eyes and respiratory tract. Wet activated carbon removes oxygen from air causing a severe hazard to workers in enclosed or confined space.		
Precautionary Statements	Precautionary Statements			
Prevention:	Avoid generation of dust during handling. Avoid breathing dust. Wash thoroughly after handling. Use in a well-ventilated area.			
Response:	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes.			
Storage:	Store in a well-ventilated place. Keep container tightly closed.			

SECTION IV - FIRST-AID MEASURES

Route of exposure		
Inhalation	Dust may cause mild irritation to the upper respiratory tract.	
Skin	Dust may cause mild irritation, possibly reddening.	
Eyes	Dust may cause mild irritation, possibly reddening.	
Ingestion	Dust may cause mild irritation to digestive track resulting in nausea or diarrhea.	
Signs/Symptoms of Exposure	Dust may cause irritation and redness of eyes, irritation of skin and respiratory system. The effects of long-term, low-level exposures to this product have not been determined.	
Emergency and First Aid Procedures	For eye contact, immediately flush with copious amounts of water for at least 15 minutes, lifting both the upper and lower lids occasionally; seek medical attention.	
	For skin contact, wash with soap and water; seek medical	

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	attention.
	For inhalation, Remove to fresh air and rest as needed; seek medical attention for any breathing difficulty.
	For ingestion, drink plenty of water; seek medical attention.
Medical Conditions Generally Aggravated by Exposure	People with pre-existing skin conditions or eye problems or impaired respiratory function may be more susceptible to the potential effects of the dust.

SECTION V - FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use an extinguishing media suitable for the surrounding fire.
Unsuitable Extinguishing Media	None known
Specific Hazards	As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. Activated carbon is difficult to ignite and tends to burn slowly (smolder) without producing smoke or flame. Carbon monoxide and carbon dioxide gas may be emitted upon combustion of material. Contact with strong oxidizers such as ozone or liquid oxygen may cause rapid combustion.
Protective Equipment and Procedures	Wear NIOSH approved self-contained breathing apparatus suitable for the surrounding fire.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective equipment, keep unnecessary personnel away, and ventilate area of spill.	
Environmental Precautions The material is not soluble but can cause a particular if discharged to waterways; therefore, dike all entrancements sewers and drains to avoid introducing the material waterways.		
Containment & Clean-up Dike all entrances to sewers and drains. Vacuum o spilled material and place in closed container for dis Remove product to appropriate storage area until it properly disposed of in accordance with local, state regulations. Avoid dust formation. See section XIII		
Other information	NA	

SECTION VII - HANDLING AND STORAGE

Avoid prolonged contact with eyes and skin. Keep away from ignition sources. Use in well ventilated areas. Protect containers from physical damage. Wash hands after handling.
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Cond	ditions	For
Safe	Storac	ae

Store in cool, dry, ventilated area and in closed containers. Keep away from oxidizers, heat or flames. Store away from ignition sources.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	OSHA PEL	ACGIH TLV	Other limits
Activated Carbon	NA	NA	
	١.,		
Exposure Guidelines	Wet activated carbon removes oxygen from air posing a hazard to workers in enclosed or confined space. Before entering such an area, sample the air to assure sufficient oxygen supply. Use work procedures for low oxygen levels, observing all local, stated and federal regulations.		
Engineering Controls	Exhaust ventilation should be designed to prevent accumulation and recirculation in the workplace and safely remove carbon black from the air. Note: Wet activated carbon removes oxygen from air causing a severe hazard to workers in enclosed or confined space. If risk of overexposure exists, wear an approved respirator. Provide adequate ventilation in warehouse or closed storage area.		
Personal Protective Equipment	Use of NIOSH approved particulate filter is recommended if dust is generated in handling. The usual precautionary measures for handling chemicals should be followed, i.e. gloves, safety glasses w/side shields or goggles, long sleeve shirt or lab coat, dust respirator if dusty. Other protective clothing/equipment as appropriate.		
General Hygiene	The usual precautionary measures for handling chemicals should be followed: i.e. Keep away from food and beverage; remove contaminated clothing immediately; wash hands before breaks or eating; avoid contact with eyes and skin.		

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Physical State (App	earance)	Black granular or power	der material
Color	Black	Molecular Weight	NA
Odor	None	Odor Threshold	None
pH Value	NA	Vapor Pressure	0
Melting Point	NA	Vapor Density	Solid
Freezing Point	NA	Relative Density	0.4 to 0.7
Initial Boiling Point	NA	Solubility	Not Soluble
Flashpoint	NA	Partition Coefficient	NA
Evaporation Rate	NA	Auto Ignition Temp.	>220° C
Flammability	>220° C	Decomp. Temp.	NA

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UEL	NA	Viscosity	NA
	NA		

SECTION X – STABILITY AND REACTIVITY

CHEMICAL	UNSTABLE		CONDITIONS TO AVOID:		
STABILITY	STABLE	XX	None		
POSSIBILITY OF	OSSIBILITY OF MAY OCCUR		CONDITIONS TO AVOID:		
HAZARDOUS	WILL NOT	XX	None		
REACTION	OCCUR				
Caution: High concentrations of organics in air will cause temperature rise due to heat of adsorption. At very high concentration levels this may result in a thermal excursion, referred to as a bed fire. High concentrations of Ketones and Aldehydes may cause a bed temperature rise due to adsorption and oxidation.					
Materials to Avoid		Alkali Metals and Strong Oxidizers such as ozone, oxygen, permanganate, chlorine.			
Hazardous Decomposition Products			Carbon monoxide and carbon dioxide gas may be generated during combustion of this material		

SECTION XI – Toxicological information

Acute Effects						
Toxicity Studies	Oral LD ₅₀	Not determined on the finished product.				
Toxicity Studies	Dermal LD ₅₀	Not determined on the finished product.				
Inhalation See section IV						
Ingestion See section IV						
Eye Irritation See section IV						
Skin Irritation	See section IV					
Sensitization Not determined of		on the finished product.				
Target Organ (s) or System		Eyes, Skin and Upper Respiratory System				
Signs and symptoms of Exposure		Irritation and redness of eyes, irritation of skin and respiratory system may result from exposure to carbon dust. See Sections III and IV.				
Chronic Effects	Chronic Effects					
Carcinogenicity		Not Determined on the finished product.				
Mutagenicity		Not Determined on the finished product.				
Reproductive Effects		Not Determined on the finished product.				
Developmental Fa	ctors	Not Determined on the finished product.				

SECTION XII - ECOLOGICAL INFORMATION

Ecotoxicity	Not Determined on the finished product.
Persistence/degradability	Not Determined on the finished product.
Bioaccumulation/Accumulation	Not Determined on the finished product.
Mobility in Environmental Media	Not Determined on the finished product.
Other Adverse Effects	Not Determined on the finished product.

SECTION XIII - DISPOSAL CONSIDERATIONS

Vacuum or shovel material into a closed container. Storage and disposal should be in accordance with applicable local, state and federal laws and regulations. Local regulations may be more stringent than state or federal requirements. Activated Carbon is an adsorbent media; hazard classification is generally determined by the adsorbate that the carbon has picked up. Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal.

SECTION XIV - TRANSPORT INFORMATION

This information as presented below only applies to the material as shipped. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

	DOT Regulations	UN/NA	KE 8X14 UN 1362
	Canadian WHMIS	UN- Proper Shipping Name	(Steam Activated Carbon)
Land		Transport Hazard Class	None see Note 1 below
		Packing Group	None
·		Marine Pollutant	None
	·		
	IMO / IMDG	UN/NA	KE 8X14 UN 1362
Matar		UN- Proper Shipping Name	(Steam Activated Carbon)
Water		Transport Hazard Class	None
		Packing Group	None
		Marine Pollutant	None
Air	IACO / IATA	UN/NA	KE 8X14 UN 1362

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UN- Proper Shipping Name	(Steam Activated Carbon)	
Transport Hazard Class	None	
Packing Group	None	
Marine Pollutant	None	
Information reported for	or product/size: 0.5 Kg	

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 XV - REGULATORY INFORMATION

SARA Title III 302	Product is n	ot subject to SARA Title III, section 302 regulation.			
SARA Title III 313	Product is not subject to SARA Title III, section 313 regulation.				
TSCA	Product is listed				
California Proposition 65	Product is not listed				
Canadian classification	WHMIS	Product is listed.			
Canadian classification	DSL#	Product is listed.			
EEC Council Directives rel	ating to the	e classification, packaging, and labeling of			
dangerous substances and					
Risk and Safety Phrases		ng to the eyes,			
	R37: Irritating to the respiratory system,				
	R38: Irritating to the skin,				
Carbon, activated (CAS:	Canada - British Columbia Occupational Exposure Limits				
7440-44-0) is found on	Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances				
the following regulatory	Canada Domestic Substances List (DSL)				
lists:	International Air Transport Association (IATA) Dangerous Goods				
	Regulations OECD Representative List of High Production Volume (HPV)				
	Chemicals LIS - Hawaii Air Contaminant Limits				
	US - Hawaii Air Contaminant Limits US - Idaho - Toxic and Hazardous Substances - Mineral Dust				
	US - Idano - Toxic and Hazardous Substances - Mineral Dust US - Minnesota Hazardous Substance List				
	US - Minnesota Prazardous Substance List US - Minnesota Permissible Exposure Limits (PELs)				
	US - Rhode Island Hazardous Substance List				
	US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants				
	US - Washington Permissible exposure limits of air contaminus DOE Temporary Emergency Exposure Limits (TEELs) US EPA High Production Volume Program Chemical List				
	US FDA CF	SAN Color Additive Status List 4			

US FDA CFSAN Color Additive Status List 6

SECTION XVI - OTHER INFORMATION

Intended Use The material is generally used for treatment of gases (and liquids).

The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to determine the suitability and completeness of this information for their particular use.

While the information and recommendations set forth herein are believed to be accurate as of the date hereof, Calgon Carbon Corporation makes no warranty with respect to same and disclaims all liability for reliance there on.

References:

NA

not applicable

Legend:

ACGIH - American Conference of Governmental Industrial Hygienists

ANSI - American National Standards Institute

C - Ceiling (limit value)

CAS # - Chemical Abstracts Service Registry Number

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

CEPA - Canadian Environmental Protection Act

CFR - Code of Federal Regulations
DOT - Department of Transportation
DSL - Domestic Substances List

EINECS - European Inventory of Existing Commercial Chemical Substances

ERAP - Emergency Response Assistance Plan
IATA - International Air Transportation Association
IARC - International Agency for Research on Cancer
ICAO - International Civil Aviation Organization
IDLH - Immediately Dangerous to Life and Health
IMO - International Maritime Organization
IMDG - International Maritime Dangerous Goods

LC₅₀ - The concentration of material in air expected to kill 50% of a group of test animals

LD₅₀ - Lethal Dose expected to kill 50% of a group of test animals

NA - Not Applicable

NFPA - National Fire Protection Association

NIOSH - National Institute for Occupational Safety and Health

NTP - National Toxicology Program

OSHA - Occupational Safety and Health Association

PEL - Permissible Exposure Limit

RCRA - Resource conservation and Recovery Act

RQ - Reportable Quantity

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SARA

STEL

TLV

- Superfund Amendments and Reauthorization Act
- Short Term Exposure Limit
- Transportation of Dangerous Goods Act/Regulation

TDG

- Threshold Limit Value

TSCA

- Toxic Substances Control Act

TWA

WHMIS

- Time Weighted Average - Workplace Hazardous Material Information System

* * * END OF MATERIAL SAFETY DATA SHEET * * *