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: **FILTRASORB 400**	
Product Code: 2030	**Profile No:** 1
Effective Date: **March 31, 2008**	**Supersedes: XXXXX**

SECTION I - PRODUCT AND COMPANY INFORMATION

Company Identification (USA)	**Calgon Carbon Corporation** P.O. Box 717 Pittsburgh, PA 15230-0717	
Telephone Number(s)	Information	412-787-6700
	Emergency	412-787-6700
Company Identification (Europe)	**Chemviron Carbon** Zoning Industriel de Feluy B-7181 Feluy, Belgium	
Telephone Number(s)	Information	32 64 51 18 11
	Emergency	32 64 51 18 11

Date Prepared November 3, 2008	Signature of Preparer (optional)	

SECTION II – 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.

Ingredient / Component	CAS No	% by Wt
Activated Carbon (Coal based)	7440-44-0	100

SECTION III – HAZARD(S) IDENTIFICATION

Emergency Overview: Black particulate solid, pellet or powder. Contact may cause eye irritation. Dust may be slightly irritating to eyes and respiratory tract. Avoid generation of dust during handling.

CAUTION: Wet activated carbon removes oxygen from air causing a severe hazard to workers in enclosed or confined space. Before entering such an area, sampling and work procedures for low oxygen levels should be taken to ensure ample oxygen availability, observing all local, state and federal regulations

OSHA Regulatory Status		Not regulated	
HMIS Ratings	Health	0	4 = Extreme/Severe 3 = High/Serious 2 = Moderate 1 = Slight 0 = Minimum W = Water Reactive OX = Oxidizer
(NFPA)	Flammability	1	
	Reactivity	0	
	Special		
Protective Equipment	Safety glasses with side shields or goggles, gloves, long sleeve shirt or lab coat, long pants recommended.		
Health Effects	See Section IV		
Environmental Effects	See Section XII		

Section IV – First-Aid Measures

Route of exposure	
Eyes	Dust may cause mild irritation, possibly reddening.
Skin	Dust may cause mild irritation, possibly reddening.
Inhalation	Dust may cause mild irritation to the upper respiratory tract.
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.
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 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 generated if combusted. 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, ventilate area of spill.
Environmental Precautions	The material is not soluble but can cause a particulate emission if discharged to waterways; therefore, dike all entrances to sewers and drains to avoid introducing the material into the waterways.
Containment & Clean-up	Dike all entrances to sewers and drains. Vacuum or shovel spilled material and place in closed container for disposal. Remove product to appropriate storage area until it can be properly disposed of in accordance with local, state and federal regulations. Avoid dust formation. See section XIII
Other information	NA

SECTION VII – HANDLING AND STORAGE

Handling	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.
Storage	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	5 mg/M^3 Resp	5 mg/M^3 Resp	

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, state and federal regulations.
Engineering Controls	No special ventilation requirements. Good general ventilation should be adequate. Mechanical ventilation is recommended for enclosed or confined spaces
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

Boiling Point	NA	**Melting Point**	NA
Vapor Pressure (mm Hg.)	0	**Evaporation Rate**	NA
Vapor Density (AIR = 1)	solid	**Flash Point**	NA
Specific Gravity	0.4 to 0.7	**UEL**	NA
		LEL	NA
Flammability Limits	Ignition Temperature > 220º C		
Odor	None		
Solubility in Water	Product is not soluble.		
Appearance	Black granular or powder material		

SECTION X – STABILITY AND REACTIVITY

STABILITY	**UNSTABLE**		**CONDITIONS TO AVOID:** None
	STABLE	**XX**	
HAZARDOUS REACTION	**MAY OCCUR**		**CONDITIONS TO AVOID:** None
	WILL NOT OCCUR	**XX**	
Caution: High concentrations of organics in air will cause temperature rise due to heat of adsorption. At very high concentration levels this may cause a bed fire. High concentrations of Ketones and Aldehydes may cause a bed temperature rise due to adsorption and oxidation.			
Incompatible Materials			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.
	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 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		
Carcinogenicity	Not Determined on the finished product.	
Mutagenicity	Not Determined on the finished product.	
Reproductive Effects	Not Determined on the finished product.	
Developmental Factors	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.

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.			
Land	DOT Regulations	Proper Shipping Description	FILTRASORB 400 (Steam Activated Carbon)
	Canadian WHMIS	Hazard Class	NA See note below
		UN/NA	UN 1362
Water	IMO / IMDG	Proper Shipping Description:	FILTRASORB 400 (Steam Activated Carbon)
		Hazard Class	NA See note below
		UN/NA	UN 1362
Air	IACO / IATA	Proper Shipping Description	FILTRASORB 400 (Steam Activated Carbon)
		Hazard Class	NA See note below
		UN/NA	UN 1362
		Information reported for product/size: 0.5 Kg	
This product has been tested according to the *United Nations Transport of Dangerous Goods* test protocol for a "self-heating substance". It has been specifically determined that this product does not meet the definition of a self heating substance or any other hazard class, and therefore is not a hazardous material. Please note that this information is applicable only for the Activated Carbon Product identified in this document.			

SECTION XV – REGULATORY INFORMATION

SARA Title III 302	Product is not 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.
	DSL #	Product is listed.
EEC Council Directives relating to the classification, packaging, and labeling of dangerous substances and preparations.		
Risk and Safety Phrases	R36: Irritating to the eyes, R37: Irritating to the respiratory system, R38: Irritating to the skin,	

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
ATSDR	- Agency for Toxic Substances and Disease Registry
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
LC_{50}	- The concentration of material in air expected to kill 50% of a group of test animals
LD_{50}	- Lethal Dose expected to kill 50% of a group of test animals
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
SARA	- Superfund Amendments and Reauthorization Act
STEL	- Short Term Exposure Limit
TDG	- Transportation of Dangerous Goods Act/Regulation
TLV	- Threshold Limit Value
TSCA	- Toxic Substances Control Act
TWA	- Time Weighted Average
WHMIS	- Workplace Hazardous Material Information System

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