



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: AMMONASORB II 4X8	
Product Code: 7497	Profile No: 41

SECTION I

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:	Signature of Preparer: (optional)	
November 3, 2008		

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	7440-44-0	≥ 80
Phosphoric Acid	7664-38-2	< 20

SECTION III – HAZARD(S) IDENTIFICATION

Emergency Overview: Black particulate solid, pellet or powder. Contact may cause eye or skin irritation. Dust may be irritating to eyes and respiratory tract.			
OSHA Regulatory Status:		Some of the ingredients of this product are classified as Hazardous by OSHA	
HMIS Ratings: (NFPA)	Health	3 – High/Serious	4 = Extreme/Severe 3 = High/Serious 2 = Moderate 1 = Slight 0 = Minimum w = Water Reactive ox = oxidizer
	Flammability	0 – Minimum	
	Reactivity	2 – Moderate	
	Contact	3 – High/Serious	
	Special		
Protective Equipment		Gloves, long sleeve shirts, long pants recommended. Material may be corrosive	
Health Effects:	See section IV		
Environmental Effects:	Not Determined,		

SECTION IV – FIRST-AID MEASURES

Route of exposure	
Inhalation	Irritation of respiratory system by dust and carbon fines is possible, effect of long term exposure to dust on respiratory system has not been defined, however severe exposures to Phosphoric acid can lead to a chemical pneumonitis
Skin	Corrosive. May cause skin irritation, redness, pain, and severe skin burns.
Ingestion	Corrosive. May cause sore throat, nausea, and burns of the mouth and throat. Severe exposure to Phosphoric Acid can lead to shock, circulatory collapse and death
Eyes	Corrosive. May cause redness, pain, blurred vision, eye burns and permanent eye damage.
Signs/Symptoms of Exposure	Irritation of eyes and respiratory system may result from exposure. Burns to skin and mucus membranes may occur upon contact.
Emergency and First Aid Procedures	For eye contact, immediately flush with copious amounts of water for at least 15 minutes and seek medical attention. For inhalation, seek fresh air and rest as needed, seek medical attention For skin contact, wash with soap and water; seek medical attention if irritation becomes apparent. For ingestion, call physician immediately, do not induce vomiting, and seek medical attention.
Medical Conditions Generally Aggravated by Exposure	Persons with pre-existing skin disorders or eye problems may be more susceptible to the effects of the substance

SECTION V – FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Water, CO ₂ , inert gas. If water is used, use in abundance to control heat and acid build-up.
Unsuitable Extinguishing Media	None
Specific Hazards	None
Protective Equipment and Procedures	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Toxic fumes may be emitted under fire conditions.

SECTION VI – ACCIDENTAL RELEASE MEASURES

Personal Precautions	See section VIII
Environmental Precautions	Do not allow material to enter drains or streams
Containment & Clean-up	Sweep up carbon and place in closed container for disposal. Remove product to appropriate storage area until it can be properly disposed of. Avoid dust formation. See section XIII
Other information	US Regulations (CERCLA) require the reporting of spills and releases to soil, water and air of H ₃ PO ₄ in excess of reportable quantities.

SECTION VII – HANDLING AND STORAGE

Handling	Keep away from ignition sources. Avoid prolonged contact with skin. Use in well ventilated areas. 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. Product is corrosive to mild steel and should be stored in rubber or plastic lined vessels.

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	OSHA PEL	ACGIH TLV	Other limits
Activated Carbon	Non Defined	Non Defined	
H ₃ PO ₄	1 mg/M ³ (TWA for Phosphoric acid)	1 mg/M ³ (TWA for Phosphoric acid) 3 mg/M ³ (STEL for Phosphoric acid)	
Exposure Guidelines	Wet activated carbon removes oxygen from air posing a hazard to workers inside carbon vessels or enclosed/confined spaces. 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	Mechanical ventilation of enclosed/confined spaces is recommended. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.		

Personal Protective Equipment	Use of NIOSH approved particulate filter if dust is generated in handling is recommended; if the exposure limits for H ₃ PO ₄ are exceeded, a full face piece respirator with high efficiency dust /filter may be necessary. wear suitable protective clothing to prevent contact with skin. Wearing of gloves and eye protection is highly recommended. Other protective clothing /equipment as appropriate
General Hygiene	Avoid generation of dust in handling. Avoid skin and eye contact. Wash hands after handling.

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 - 0.8	UEL	NA
		LEL	NA
Flammability Limits	Ignition Temperature > 220° C		
Odor	NA		
Solubility in Water	Soluble Impregnant		
Appearance	Black granules, powder or pellets		

SECTION X – STABILITY AND REACTIVITY

STABILITY	UNSTABLE		CONDITIONS TO AVOID: High concentrations of organics in air will cause temperature rise due to heat of adsorption. At very high concentrations levels this could cause a bed fire. High concentrations of ketones and aldehydes can cause a bed temperature rise due to adsorption and oxidation.
	STABLE	XX	
HAZARDOUS REACTION	MAY OCCUR		CONDITIONS TO AVOID: NA
	WILL NOT OCCUR	XX	
Incompatible Materials			Alkali Metals and Strong Oxidizers such as ozone, oxygen, permanganate, chlorine. May liberate hydrogen gas if contacted with chlorides. May form toxic fumes with cyanides, sulfides, fluorides and halogenated organics.
Hazardous Decomposition Products			Carbon monoxide gas may be generated during combustion of this material. Phosphorus oxides may form when heated to decomposition.

SECTION XI – TOXICOLOGICAL INFORMATION

Acute Effects		
Toxicity Studies	Oral LD ₅₀	Not determined (For 100% H ₃ PO ₄ value is 1530 mg/kg)
	Dermal LD ₅₀	Not determined
Inhalation:	See section IV	
Ingestion:	See section IV	
Eye Irritation:	See section IV	
Skin Irritation:	See section IV	
Sensitization:	Persons with pre-existing skin disorders or eye problems may be more susceptible to the effects of the substance	
Target Organ (s) or System	Eyes, Skin, Respiratory system, G.I. tract	
Signs and symptoms of Exposure		
See section IV		
Chronic Effects		
Carcinogenicity:	N/A	
Mutagenicity:	H ₃ PO ₄ is being investigated as a mutagen.	
Reproductive Effects:	N/A	
Developmental Factors:	N/A	

SECTION XII – ECOLOGICAL INFORMATION

Ecotoxicity:	Not Determined
Persistence/degradability:	When released into the soil, this material may leach acid into the groundwater. When released to water, the acidity may be readily reduced by natural water hardness minerals.
Bioaccumulation/Accumulation:	The acid may be readily neutralized but eh phosphate may persist indefinitely.
Mobility in Environmental Media:	Not Determined
Other Adverse Effects:	Direct contact with the acid present in this material may be result in damage to plants and animals, including to and including potential fatalities for smaller organisms. Avoid contamination of the environment.

SECTION XIII – DISPOSAL CONSIDERATIONS

Sweep or shovel carbon into a closed container.
Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

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.

SECTION XIV – TRANSPORT INFORMATION

Land	DOT Regulations	Proper Shipping Description:	AMMONASORB II 4X8
	Canadian WHMIS	Hazard Class:	8
		UN/NA:	UN1805
		Information reported for product/size: N/A	
Water	IMO / IMDG	Proper Shipping Description:	AMMONASORB II 4X8
		Hazard Class:	8
		UN/NA:	UN1805
		Information reported for product/size: N/A	
Air	IACO / IATA	Proper Shipping Description:	AMMONASORB II 4X8
		Hazard Class:	8
		UN/NA:	UN1805
		Information reported for product/size: N/A	

SECTION XV – REGULATORY INFORMATION

SARA Title III:	H ₃ PO ₄ is on the SARA Title III list		
TSCA	H ₃ PO ₄ is on the TSCA Inventory List		
OSHA	H ₃ PO ₄ is on the OSHA List of Hazardous chemicals.		
Canadian classification	WHMIS		
	DSL	yes	
EEC Council Directives relating to the classification, packaging, and labeling of dangerous substances and preparations.			

Risk Phrases	R20/21/22 Harmful by inhalation, in contact with skin and if swallowed R41 Risk of serious damage to eyes R43 May cause sensitization by skin contact R52 Harmful to aquatic organisms
Safety Phrase	S24/25 Avoid contact with skin and eyes S45 in case of accident or if you feel unwell, seek medical advice immediately S36/37 wear suitable protective clothing and gloves

SECTION XVI – OTHER INFORMATION

Intended Use:	The material is generally used for treatment of gases.
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 satisfy oneself as to the suitability and completeness of this information for their own 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:

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
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 * * *