

Material Safety Data Sheet

SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: ACTIVATED CARBON, *Phosphoric Acid Impregnated*
Part Number: None **Chemical Family:** Activated carbon

Manufacturer's Name: Siemens Industry, Inc. - Water Technologies Business Unit

Address: 14250 Gannet Street, La Mirada, CA 90638

Product/Technical Information Phone Number: (714) 228 - 8800

Medical/Handling Emergency Phone Number: CHEMTREC (800) 424-9300
24 hours a day

Transportation Emergency Phone Number: CHEMTREC (800) 424-9300
24 hours a day

Issue Date: November 19, 2003

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SECTION 2 – COMPOSITION INFORMATION

<u>Chemical Name</u>	<u>Percent by Weight</u>	<u>CAS#</u>
Activated Carbon	> 90	7440-44-0
Phosphoric Acid	< 10	7664-38-2

SECTION 3 – HAZARDS IDENTIFICATION

Appearance & Odor: Black odorless solid.

Emergency Overview: Product is irritating and may burn the skin, eyes, respiratory tract and gastrointestinal tract. Warning: Wet activated carbon depletes oxygen from the air and therefore dangerously low levels of oxygen may be encountered in enclosed spaces. Whenever workers enter a vessel containing activated carbon, the vessel's oxygen content should be determined and work procedures for potentially low oxygen areas should be followed.

Fire & Explosion Hazards: Irritating and/or toxic gases due to decomposition of the product may be generated during a fire. Contact with strong oxidizers may cause rapid combustion.

Primary Route(s) of Exposure: Eye contact, skin contact, or inhalation are all possible routes of entry.

Inhalation – Acute Effects: Dust is irritating and may burn the respiratory tract and cause coughing, sneezing, sore throat and shortness of breath.

Skin Contact – Acute Effects: Skin contact will cause irritation with redness and pain and possible burns.

Eye Contact – Acute Effects: Eye contact will cause irritation and possible burns. Contact may cause mechanical injury or irritation with redness, pain and blurred vision.

Ingestion – Acute Effects: Ingestion will cause irritation to the gastrointestinal tract and may cause burning abdominal pain.

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SECTION 4 – FIRST AID MEASURES

Inhalation First Aid: Remove affected person from area to fresh air and provide oxygen if breathing is difficult. Give artificial respiration ONLY if breathing has stopped and give CPR ONLY if there is no breathing and no pulse. Obtain medical attention if irritation occurs.

Skin Contact First Aid: Wash skin for 15 minutes with flowing water and soap. Clothing should be discarded or washed before reuse. Obtain medical attention if irritation develops. DO NOT instruct person to neutralize affected skin area.

Eye Contact First Aid: Immediately irrigate eyes with flowing water continuously for 15 minutes while holding eyes open. Contacts should be removed before or during flushing. Seek medical attention if irritation develops. DO NOT instruct person to neutralize.

Ingestion First Aid: Vomiting may need to be induced but only if directed by a physician or poison control center. DO NOT have unqualified personnel induce vomiting. Obtain medical attention immediately.

Medical Conditions Aggravated: Respiratory ailments may be aggravated by exposure to this product.

Note to Physician: No specific antidote, treat patient symptomatically.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point/Method: not applicable

Auto Ignition Temperature: not applicable

Upper/Lower Explosion Limits: not applicable

Extinguishing Media: Use media appropriate for the surrounding fire.

Fire Fighting Procedures: Avoid procedures that may stir up dust clouds. In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece, operated in the positive pressure mode.

Fire & Explosion Hazards: Irritating and/or toxic gases due to decomposition of the product may be generated during a fire. Contact with strong oxidizers may cause rapid combustion.

Hazardous Products of Decomposition and/or Combustion: Combustion forms toxic fumes of carbon dioxide, carbon monoxide, and phosphorous oxides.

NFPA Ratings: HEALTH-2 FLAMMABILITY-0 REACTIVITY-1 OTHER-none

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Clean up spills in a manner that does not disperse dust into the air. Sweep up and recover or mix material with moist absorbent for dust control and pick-up and shovel into waste container. Use detergent in spill area after clean up and flush with plenty of water. Wear personal protection during clean up. Handle in accordance with good industrial hygiene and safety

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practices. These practices include avoiding unnecessary exposure, and removal of material from eyes, skin, and clothing. Spent (used) carbon should be disposed of in accordance with applicable laws. Do not reuse empty bags. **DO NOT DUMP INTO ANY SEWERS, ON THE GROUND OR INTO ANY BODY OF WATER.** All disposal methods must be in compliance with all Federal, State, Local and Provincial laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

SECTION 7 – HANDLING AND STORAGE

Handling: Avoid dispersion into air. Keep containers dry and closed. Follow good handling and housekeeping practices to minimize spills, generation of airborne dusts, and accumulation of dusts on exposed surfaces. Use with adequate exhaust ventilation to draw dust away from workers' breathing zones. Prevent or minimize exposures to dusts by using appropriate respirators, gloves, and eye protection. Wash exposed skin areas thoroughly with soap and water. Use caution when pouring, using pneumatic transport, swirling, etc. as this material can become electrostatically charged.

Storage: Avoid spilling product and creating residual dust. Store in ambient atmospheric conditions. Product should be stored in a closed dry container. Maintain good housekeeping procedures. Store away from strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate, etc.

General Comments: An oxygen deficiency may be created when activated carbon is stored in an enclosed space/silo. Ventilate or wear self-contained breathing apparatus and follow all procedures for confined space entry. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

SECTION 8 – PERSONAL PROTECTION/ EXPOSURE CONTROL

Respiratory Protection: Use NIOSH/MSHA approved respiratory protection equipment appropriate to the material and/or its concentration where airborne exposure is likely.

Skin Protection: Wear appropriate gloves and protective clothing such as an apron and long-sleeved shirt. Do not handle with bare hands.

Eye Protection: Safety glasses with side shields or goggles are recommended for any type of handling.

Ventilation Protection: Provide ventilation if necessary to minimize exposure. Dilute ventilation acceptable, but local mechanical exhaust ventilation preferred, if practical, at sources of air contamination such as open process equipment.

Other Protection: Safety showers, with quick opening valves which stay open, and eye wash fountains, or other means of washing the eyes with a gentle flow of cool to tepid tap water, should be readily available in all areas where this material is handled or stored. Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather.

Exposure Limits: For Carbon: OSHA PEL-TWA: 15 mg/m³ (total), 5 mg/m³ (resp)
OSHA PEL-STEL: 10 mg/m³

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For Phosphoric Acid: ACGIH TLV: 1 mg/m³; 3 mg/m³ (as STEL)

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Black odorless solid.

Vapor Pressure: not applicable

Vapor Density (Air=1): not applicable

Boiling Point: not applicable

Melting Point: not determined

Specific Gravity: 0.50 g/cc

Solubility in Water: Insoluble

Volatile Percentage: not applicable

pH: acidic

Flash Point/method: not applicable

Auto Ignition Temperature: not applicable

Upper/Lower Explosion Limits: not applicable

SECTION 10 – STABILITY AND REACTIVITY

Stability: This product is considered stable under the specified conditions of storage, shipment and use.

Incompatibilities: Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate, etc. may result in rapid combustion. Avoid contact with strong acids.

Polymerization: Hazardous polymerization will not occur.

Decomposition: Combustion forms toxic fumes of carbon dioxide, carbon monoxide, and phosphorous oxides.

Conditions to Avoid: Store away from strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate, etc. Moist air will reduce the operating life.

SECTION 11 – TOXICOLOGICAL INFORMATION

Inhalation – Acute: Dust will be irritating to the respiratory tract and cause coughing, sneezing, sore throat and shortness of breath. Extensive breathing of dust may burn the respiratory tract due to the presence of phosphoric acid.

Inhalation – Chronic: There are no known chronic inhalation effects.

Skin Contact – Acute: Skin contact will cause irritation with redness and pain and continued contact may burn the skin.

Skin Contact – Chronic: There are no known chronic dermal effects.

Eye Contact – Acute: Eye contact will cause irritation and possible burns. Eye contact may cause mechanical injury with redness, pain and blurred vision. Eye contact can cause conjunctivitis, epithelial hyperplasia of the cornea, as well as eczematous inflammation of the eyelids.

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Ingestion – Acute: Ingestion will cause irritation to the gastrointestinal tract and may cause burning abdominal pain due to the presence of phosphoric acid.

Ingestion – Chronic: There are no known chronic ingestion effects.

Carcinogenicity/Mutagenicity: There are no known carcinogenic/mutagenic effects.

Reproductive Effects: There are no known reproductive effects.

Neurotoxicity: There are no known neurotoxic effects.

Other Effects: No other toxic effects are known.

Target Organs: Target organs include the respiratory system and the cardiovascular system.

SECTION 12 – ECOLOGICAL INFORMATION

There are no known ecological effects.

SECTION 13 – DISPOSAL CONSIDERATIONS

Clean spills in a manner that does not disperse dust into the air, preferably a wet-down procedure or vacuum. If material is not contaminated, spilled media can be rebagged. Material that cannot be used or chemically reprocessed and empty containers should be disposed of in accordance with all applicable regulations. Product containers should be thoroughly emptied before disposal. Generators of waste material are required to evaluate all waste for compliance with RCRA and any local disposal procedures and regulations. NOTE: State and local regulations may be more stringent than federal regulations.

Warning: Wet activated carbon depletes oxygen from the air and therefore dangerously low levels of oxygen may be encountered. Whenever workers enter a vessel containing activated carbon, the vessel's oxygen content should be determined and work procedures for potentially low oxygen areas should be followed.

SECTION 14 – TRANSPORTATION INFORMATION

DOT Shipping Description: see shipping papers

SECTION 15 – REGULATORY INFORMATION

CERCLA SECTION 103 (40CFR302.4): no RQ: none

SARA SECTION 302 (40CFR355.30): no

SARA SECTION 304 (40CFR355.40): no

SARA SECTION 313 (40CFR372.65): no

SARA HAZARD CATEGORIES, SARA SECTIONS 311/312 (40CFR370.21):

ACUTE: yes CHRONIC: no FIRE: no REACTIVE: no SUDDEN RELEASE: no

OSHA PROCESS SAFETY (29CFR1910.119): no

CALIFORNIA PROPOSITION 65: no

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SECTION 16 – OTHER INFORMATION

Disclaimer: The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the user thereof. It is the buyer's responsibility to ensure that its activities comply with federal, state, provincial and local laws.

Revision Indicator: April 2011, Revised Section 1 (Updated manufacturer's name)