

# MATERIAL SAFETY DATA SHEET

## SECTION 1 – CHEMICAL PRODUCT AND COMPANY INFORMATION

**Product Name:** Granular Activated Carbon

**Item Number:** 210, 211, 212, 213

**MANUFACTURER'S NAME:**  
E S V AQUARIUM PRODUCTS INC.  
210A ENGINEERS DRIVE  
HICKSVILLE, NY 11801

**24 HOUR EMERGENCY PHONE:** 800-424-9300

E S V AQUARIUM PRODUCTS, INC.  
INFORMATION PHONE: 516-605-0531

DATE OF PREPARATION: 8/2/2010

## SECTION 2 – COMPOSITION INFORMATION

<u>Chemical Name</u>	<u>Percent by Weight</u>	<u>CAS#</u>
Activated Carbon	100	7440-44-0

## SECTION 3 – HAZARDS IDENTIFICATION

**Appearance & Odor:** black granules without taste or odor

### Emergency Overview:

- ◆ Dust that contacts eyes may be irritating or cause mechanical injury.
- ◆ Dust may cause slight skin irritation.
- ◆ Dust may be irritating to the respiratory tract and cause coughing or sneezing.
- ◆ Ingestion of powder may be irritating to the 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:** When burned, hazardous products of combustion including carbon oxides can occur. Irritating and/or toxic gasses due to decomposition of the product may be generated during a fire. Fight fire from a safe distance from a protected location. Contact with strong oxidizers such as ozone or liquid oxygen may cause rapid combustion.

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

**Inhalation – Acute Effects:** Dust may be irritating to the respiratory tract and cause coughing or sneezing.

**Skin Contact – Acute Effects:** Dust may cause slight skin irritation.

**Eye Contact – Acute Effects:** Dust that contacts eyes may be irritating or cause mechanical injury.

**Ingestion – Acute Effects:** Ingestion of powder may be irritating to the gastrointestinal tract.

## 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.

**Skin Contact First Aid:** Wash skin for 5 minutes with flowing water and soap. Clothing should be washed before reuse. Obtain medical assistance 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 assistance if irritation develops. DO NOT instruct person to neutralize.

**Ingestion First Aid:** Vomiting may need to be induced 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 symptomatically.

## SECTION 5 – FIRE FIGHTING MEASURES

**Flash Point/Method:** Nonflammable

**Auto Ignition Temperature:** 840°C (1,710°F)

**Upper/Lower Explosion Limits:** Not applicable.

**Extinguishing Media:** Water spray, carbon dioxide, foam or dry chemical

**Fire Fighting Procedures:** In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece, operated in positive pressure mode.

**Fire & Explosion Hazards:** When burned, hazardous products of combustion including carbon oxides can occur. Irritating and/or toxic gases due to decomposition of the product may be generated during a fire. Fight fire from a safe distance from a protected location. Contact with strong oxidizers such as ozone or liquid oxygen may cause rapid combustion.

**Hazardous Products of Decomposition and/or Combustion:** Carbon oxides.

**NFPA Ratings:**

HEALTH- 1    FLAMMABILITY- 0    REACTIVITY- 0    OTHER- none

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**Spill/Leak Procedures:** Clean up spills in a manner that does not disperse dust into the air.

**Cleanup:** Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of a material from eyes, skin, and clothing.

**Regulatory Requirements:** Spent (used) carbon should be disposed of in accordance with applicable laws. 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.

**Disposal:** Dispose of virgin (unused) carbon (waste or spillage) in a facility permitted for non-hazardous wastes. Spent (used) carbon should be disposed of in accordance with applicable laws. Do not reuse empty bags. Dispose of in facility permitted for non-hazardous wastes. **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 and present a dust explosion hazard.

**Storage:** Avoid spilling media so as to avoid creating residual dust. Store at 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:** 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:** If use conditions generate dust levels above the TLV/PEL, wear a NIOSH-approved particulate respirator or a NIOSH-approved cartridge respirator fitted with dust filters. Observe respirator use limitations specified by NIOSH or the manufacturer.

**Skin Protection:** Wear appropriate dust resistant clothing and gloves.

**Eye Protection:** Safety glasses with side shields. If eye contact or dusty conditions are likely, wear dust tight goggles.

**Ventilation Protection:** Provide ventilation if necessary to minimize exposure. Dilute ventilation acceptable, but local mechanical exhaust ventilations 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:

OSHA PEL ACGIH TLV

8 hr TWA, mg/m<sup>3</sup> 8 hr TWA, mg/m<sup>3</sup>

Particulates Not

Otherwise 15 (total) ---

Regulated 5 (respirable) ---

Particulates Not

Otherwise --- 10 (inhalable)

Classified --- 3 (respirable)

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

**Appearance & Odor:** black granules without taste or odor

**Vapor Pressure:** zero

**Vapor Density (Air=1):** not applicable

**Boiling Point:** not applicable

**Melting Point:** not determined

**Specific Gravity:** 1.8 – 2.1

**Solubility in Water:** Insoluble

**Volatile Percentage:** 0%

**pH:** not determined

## 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:** Hazardous decomposition will produce carbon 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:** Inhalation of carbon dust is mildly irritating to the lungs and can immediately give rise to an increased mucociliary transport and airway resistance mediated by the vagus. Inhalation LC50 (Rat) > 64.4mg/l.

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

**Skin Contact – Acute:** Skin contact is expected to be slightly irritating. The primary skin irritation index (rabbit) is 0.

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

**Eye Contact – Acute:** Eye contact can cause conjunctivitis, epithelial hyperplasia of the cornea, as well as eczematous inflammation of the eyelids.

**Ingestion – Acute:** Activated carbon is practically nontoxic. The probable oral lethal dose (human) is greater than 15g/kg; more than one quart (2.2 lbs) for a 150 lb person.

**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 effects of carbon are known.

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

## SECTION 12 – ECOLOGICAL INFORMATION

The material, in its original state, is not harmful to the environment.

## SECTION 13 – DISPOSAL CONSIDERATIONS

**Spill/Leak Procedures:** Clean spills in a manner that does not disperse dust into the air, preferably a wet-down procedure or vacuum.

**Cleanup:** If material is not contaminated, spilled media can be re-bagged. 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.

**Regulatory Requirements:** 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.

**Disposal:** 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. 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:** Not DOT regulated.

## SECTION 15 – REGULATORY INFORMATION

OSHA Hazard Communication Standard: irritant

CERCLA Section 103 no. RQ: none

SARA Section 302 no

SARA Section 304 no

SARA Section 313 no

SARA Hazard Categories, Sections 311/312:

Acute: yes

Chronic: no

Fire: no

Reactive: no

Sudden Pressure Release: no

OSHA Process Safety no

CALIFORNIA Proposition 65: no

## **SECTION 16 – OTHER INFORMATION**

This information is provided in good faith and is correct to the best of E S V Aquarium Products Inc.'s knowledge as of the date hereof and is designed to assist our customers; however, E S V Aquarium Products Inc. makes no representation as to its completeness or accuracy. Any use which E S V Aquarium Products Inc.'s customers or third parties make of this information, or any reliance on, or decision made based upon it, are the responsibility of such customer or third party. E S V Aquarium Products Inc. disclaims responsibility for damages, or liability, of any kind resulting from the use of this information. THERE ARE NO WARRANTIES OR REPRESENTATION, EXPRESS OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THIS INFORMATION OR TO THE PRODUCT IT DESCRIBES. IN NO EVENT SHALL E S V AQUARIUM PRODUCTS INC. BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES.