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Factory :
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Bandar Lampung
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MATERIAL SAFETY DATA SHEET

STEAM COCONUT SHELL ACTIVATED CARBON

SECTION 1 : PRODUCT IDENTIFICATION and USE

Product Identification : Steam Coconut Shell Activated Carbon.
Description : Black granule or powdered steam coconut shell activated carbon.
Chemical Family : Carbon
Formula : C
Atomic number : 6
Product Use : Liquid and Vapor phase filtration applications.
Typical uses :

Potable water/waste water treatment.
Dechlorination.
Purification, adsorption, separation.
Decolorization.
Air filtration.
Solvent recovery.
Breathing equipment.
Precious metals recovery.
Cigarette filter tips.

Manufacturers Name : PT Freeman Carbon Indonesia
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Emergency Telephone No: (62)-(21)-7413 / 6 (available only during office hours)

Contact Person : Mr. Michael Darwis K.

Suppliers Name:

Address:

Telephone No:

REACH Registration
or pre-registration No:

SECTION 2 : HAZARDS IDENTIFICATION

Steam Activated Coconut Shell Carbon is an odorless black granule, or powder.
Caution should be taken not to inhale dust. Prolonged exposure to dust may cause eye and respiratory tract irritation.
Never enter a confined space containing activated carbon as it will adsorb oxygen and asphyxiation may result.

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Ingestion : The acute oral LD₅₀ values are not available. Relative to other materials, a single dose of this product is relatively harmless by ingestion. Hodge, H.C. and Sterner, J.H. American Industrial Hygiene Association Quarterly, 10:4, 93, Dec. 1949.

Eye Contact : This material will probably cause some mild physical irritation if contact is made with human eyes.

Skin Contact : This material is not likely to be a primary irritant on human skin; it has a low potential for sensitization after skin contact.

Skin Adsorption : This product is not known to be absorbed through the human skin.

Inhalation : Acute toxic effects are not likely to develop after inhalation from this material.

Effect of overexposure : No adverse clinical effects have been associated with exposures to this material.

SECTION 3 : PHYSICAL DATA

CAS registry No. : 7440-44-0
EINECS No. : 231-153-3
Composition : ≥ 95% Carbon.
Hazardous : No *

* By OSHA definition, 29 CFR 1910.1200 (See section 2 for hazards identification, section 8 for exposure guideline, and section 16 for other information).

SECTION 4 - FIRST AID MEASURES

First aid procedures : Skin : Wash material off the skin with soap and water. If area becomes irritated, get medical attention.
Eyes : Immediately flush with copious amounts of water. If redness, itching or a burning sensation develops, have eyes examined and treated by medical personnel.
Ingestion : Give one or two glasses of water to drink. If gastrointestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person.)
Inhalation : Remove victim to fresh air. If cough or other respiratory symptoms develop, consult medical personnel.

SECTION 5 – FIRE FIGHTING MEASURES

Extinguishing Media : Water (fog or fine spray), carbon dioxide. Avoid methods which may stir up dust clouds.

Special fire fighting protective equipment : Self-contained breathing apparatus.

Unusual fire and explosion hazards : Airborne dust is a weak explosion hazard.

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SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled :

- Wear respiratory protection during cleanup.
- Sweep up and recover or mix material with moist absorbent and shovel into waste container.
- Wash down spill area with water containing detergent and flush away with plenty of water.

SECTION 7 : HANDLING AND STORAGE

Handling : Follow good handling and housekeeping procedures at all times. Avoid spills, accumulation of dust, or generation of airborne dust.

Avoid prolonged contact with skin and eyes. Avoid inhalation of dust.

Use only in well ventilated areas.

Storage : Store in sealed containers.

Storage should be indoors, in a dry, weatherproof building which is not prone to leaks or flooding. Containers should be stored in a manner so as to facilitate good ventilation.

Avoid storage in the same area as other flammable, or chemical, products.

Avoid direct contact with strong oxidizing agents such as Chlorine, Hypochlorates, Potassium Permanganate, Ozone, or Peroxide.

SECTION 8 : EXPOSURE CONTROL/PERSONAL PROTECTION

TLV or suggested control value : The current OSHA and ACGIH limit for dusts which contain more than 1% quartz are as follows for PT Freeman Carbon Indonesia steam activated coconut shell activated carbons :

Total Dust Limit (OHSA) = 2.1 mg/m³

Total Dust Limit (ACGIH) = 2.0 mg/m³

Ventilation : Provide adequate general and local exhaust ventilation to meet suggested control value requirements.

Respiratory protection : If needed, use MSHA-NIOSH approved respirator for dusts, mists and fumes whose TLV is greater than 0.05 mg/m³ TLV Coconut Shell 10 mg/m³ may contain silica.

Protective Clothing : For personal hygiene purposes use adequate clothing to prevent skin contact.

Eye Protection : Safety glasses with side shields.
Contact lenses should not be worn when working with activated carbon.

Other protective equipment : Eyewash station in work area.

SECTION 9 : PHYSICAL and CHEMICAL PROPERTIES

General : Steam Activated Coconut Shell Activated Carbon is a solid granular, or powdered, material and is odorless.

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Boiling Point :2,150^o C
Melting Point :851^o C
Freezing Point :Not Applicable.
Flash Point :Not Applicable.
Vapor Pressure (mmHg at 20^o C) :Not Applicable.
Vapor Density (air=1) :Not Applicable.
Autoignition Temperature : Powdered – No generally accepted test method available.
Granular – Approx. 450^o C (ANSI/ASTM D3466)
Solubility :Insoluble in water and organic solvents.
pH :5.0 – 11.0
Apparent density : 250 - 600 g/l
% Volatile by Volume :Not Applicable.

SECTION 10 : STABILITY and REACTIVITY

Reactivity Data : Stability – Stable under normal conditions.
Incompatibility (materials to avoid) – Strong oxidizing agents.
Hazardous decomposition products – Carbon Dioxide, Carbon Monoxide.
Hazardous Polymerization – Will not occur.

SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicity : No toxicity data are available. Physical and chemical properties of activated carbon are used for the health hazard assessment.
Carcinogenicity : Activated carbon is not listed in the National Toxicology program (NTP). Annual report on carcinogens nor has it been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) monographs or by OSHA.
Sub chronic effects : None established.
Teratology (birth defects) : None established.
Mutagenicity (genetic effects) : None established.

SECTION 12 : ECOLOGICAL INFORMATION

Steam Activated Carbon comprises 100% of natural materials and, as such, presents no ecological risk when exposed to, or released in, air, water, or soil.
Practically non toxic to living resources – 96hr LC₅₀ = 100-1000 mg/l
Ecotoxicity: Increase in pH 10 or more is lethal to aquatic life.

SECTION 13 : DISPOSAL

Disposal Method : Dispose of virgin (unused) carbon (waste or spillage) in a facility for non-hazardous waste.

Container disposal : Do not reuse empty bags. Dispose of in facility permitted for non-hazardous waste.

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SECTION 14 : TRANSPORTATION

ONU Code : 1362
ADR, RID : Not Dangerous (Special disposal 646 : Steam Activated Carbon)
IATA : UN 1362, Activated carbon, 4,2, III
IMDG Code : Not Dangerous (Special disposal 925 : Steam Activated Carbon)

The provisions of the International Maritime Dangerous Goods Code (IMDG Code) under the category Carbon, Activated of UN number classification 1362 IMDG code class 4.2 (2004 Edition) do not apply to Activated Carbon produced via the Steam Activation Process, by the exemption provided under special provision 925 of the IMDG 2004 Edition code book. It is excluded from IATA#395, IMCO class 4.2 or UN 1362. Product tariff is 3802.10.00. Product confirms to EN 12915-1:2009(E).

SECTION 15 : REGULATORY INFORMATION

Labelling : Not classified as hazardous.
TSCA (Toxic substances control act): Product is listed.
Canadian classification :-
WHMIS (workplace hazardous material information system) : Product is listed.
DSL# (domestic substances list) : Product is listed.
EEC council directives (REACH) : Product is listed.

SECTION 16 : OTHER INFORMATION

EPA Pesticide Registration Number: Not applicable.

The information herein is given in good faith but no warranty, either expressed or implied, is made.