

### 1. IDENTIFICATION OF THE SUBSTANCE

Product name : Steam Processed Activated Carbon.  
Product code : Customers Tariff Code: 38021000  
Usage : Liquid & Vapor applications  
Appearance : Black  
Contact Information : E-Rotek Water Systems Co., Ltd.  
Address

14/20A, Ground Floor, 5th Street  
1st Main Road, Thiruvalluvar Nagar,  
Chennai 600 118  
Tamil Nadu, India

Phone number : +91 44 4287 4395

E-mail : jeff@rotekwater.com

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Component name : Carbon. Element-  
Group CAS No : 7440.44.0  
Conc. (% w/w) : Carbon (90 to 100%), inert ingredients (0 to 10%)

### 3. HAZARD IDENTIFICATION

**Physical Appearance and Odor:** Product is odorless, black granular or powder material.

**Emergency Overview:** May be irritating to eyes, skin and respiratory tract. High airborne dust concentrations may pose an explosion hazard. Wet Steam Processed Activated Carbon present in a confined space may produce an oxygen deficient atmosphere and presents a risk of asphyxiation to persons entering those areas.

**Potential Health Effects:**

**Eyes:** Contact may produce mechanical eye irritation.

**Skin:** Skin irritation would not be expected from single short-term exposure to this product. Prolonged or repeated contact may produce some irritation.

**Ingestion:** Ingestion of this product may cause gastrointestinal irritation, nausea, vomiting and constipation. Small amounts of this product in solution, if aspirated into the lungs, may cause mild to severe pulmonary injury, possibly death.

**Inhalation:** Overexposure to dusts may produce irritation of the respiratory system. Wet Steam Processed Activated Carbon may cause asphyxiation by adsorbing oxygen from confined spaces.

HMIS Ratings: Health: **1** Fire: **1** Reactivity: **1** Pers. Prot.: safety glasses with side shields, impervious gloves for prolonged contact.

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**4. FIRST AID MEASURES**

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- Eyes : Immediately flush eyes with plenty of water. Seek medical Attention if Irritation persists.
- Skin : Wash with soap and water to avoid drying and chapping of skin.
- Ingestion : Give one or two glasses of water to drink. Seek medical attention if Gastrointestinal symptoms develop.
- Inhalation : Remove victim to fresh air. Apply resuscitation if victim is not Breathing. Seek medical attention if irritation persists.

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**5. FIRE FIGHTING MEASURES**

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Flash point: 400 to 500 deg.C

Extinguishing media: Dry chemical, foam, carbon dioxide, water fog etc

Special exposure hazards: Steam Steam Processed Activated Carbon is combustible but not easily ignitable below 200C and self-ignition in air is at well above 350C.Steam Processed Activated Carbon is an electrical conductor and should therefore not be allowed to accumulate as dust on open electrical circuits. Electrical outlets, lights and motors in dry carbon feed and storage areas should be of such construction as to preclude the entrance of carbon dust. Suspension of powdered Steam Processed Activated Carbon may explode if exposed to strong sources of ignition. Upon combustion, this product may emit carbon monoxide and low molecular weight hydrocarbons. Other materials adsorbed on to the carbon also are released during combustion.

Protective equipment for firefighting: In the event of fire, wear full protective clothing and NIOSH-approved self –contained breathing apparatus with full face piece operated in the pressure demand or other positive mode.

FIRE fighting guidance: Fire fighters should wear full protective clothing including self contained breathing apparatus. Avoid direct stream at pressure on the carbon to prevent dispersal of shouldering particles, which could spread the fire.

Hazchem Code: N/A

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## **6. ACCIDENTAL RELEASE MEASURES**

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Emergency Procedures: Personnel involved in the clean up should wear full protective clothing. Eliminate all sources of ignition. Stop leak if safe to do so. Increase ventilation. Avoid generating dust. Do not allow product to reach drains, sewers or waterways. If the product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. Use clean, non-sparking tools and equipment.

Methods and Materials for Containment and Clean Up: Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labeled container and hold for safe disposal. Avoid contact between spattered carbon and water.

Environmental Precautions: Keep away from heat, sparks and flame. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Use adequate ventilation. Wash thoroughly after handling.

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## **7. HANDLING AND STORAGE**

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Precautions for Safe Handling: Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes. In common with many organic chemicals, may form explosive dust clouds in air.

Storage: Protect against damage. Store in cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be no smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. 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.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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**National Exposure Standards:** The exposure standard for dust not otherwise specified is 10mg/m<sup>3</sup> (for inspirable dust) and 3mg/m<sup>3</sup> (for respirable dust). NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

**Biological Limit Values:** No information available on biological limit values for this product.

**Engineering controls:** A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area

**Respiratory protection:** Wear an effective dust mask where dusts/vapors are generated and engineering controls are inadequate. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

**Eye Protection:** Safety glasses with side shields.

**Hand protection:** Wear rubber or PVC gloves.

**Clothing:** Long-sleeved protective clothing and safety footwear.

**Ingestion:** No adverse effects expected. May cause mild irritation to the gastrointestinal tract. The oral LD 50 (Rat) is 10g/kg.

**Eye Contact:** No adverse effects expected. May cause mild irritation, possible reddening.

**Flammability rating :** Product is not flammable

**Lab Protective Equip :** GOOGLES; LAB COAT; CLASS –B EXTINGUISHER

**Strong Color Code :** Orange (General Code)

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance: Black particulate solid, pellet or powder

Physical state: Granular or Powder.

Color : Black

Odor : Odorless

Solubility : Insoluble in water

Specific Gravity/Density at 23 deg C – 0.45 to 0.55

Melting point: 3550 deg. C (6422 F)

Vapor pressure at 20 deg. C (MM Hg): 1 @ 3586deg.C (6487 F)

Vapor density (Air +1): 0.4

Solubility in water (20 deg.C): Insoluble in water

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## 10. STABILITY AND REACTIVITY

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Stability: Stable under ordinary condition of usage and storage

Hazards decomposition Product: Involvement in a fire causes formation of carbon dioxide and carbon monoxide

Hazards Polymerization: Will not occur

Incompatibilities: Liquid air oxidizing materials. Strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate etc

Conditions to avoid: Avoid excessive heat, direct sunlight, generating dust, moisture, static discharges and high temperatures.

Hazardous Decomposition Products: On burning, this product will emit toxic fumes, including those of oxides of carbon

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## 11. TOXICOLOGICAL INFORMATION

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Toxicity Data: No adverse health effects expected if the product is handled in accordance with this safety data sheet and the product label. No toxicological LD50 data available for this product.

Health Effects - Acute

Eyes	:	Immediately flush eyes with plenty of water. Seek medical Attention if Irritation persists.
Skin	:	Wash with soap and water to avoid drying and chapping of skin.
Ingestion	:	Give one or two glasses of water to drink. Seek medical attention if Gastrointestinal symptoms develop.
Inhalation	:	Remove victim to fresh air. Apply resuscitation if victim is not
Long term studies	:	No information found
Carcinogenicity	:	No information found
Mutagen city	:	No information found

Reproductive toxicity: No information found

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## 12. ECOLOGICAL INFORMATION

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Ecotoxicity: No data available.

Persistence and Degradability: No information available on persistence/degradability for this product.

Mobility: Insoluble in aqueous environment, the product is separable by filtration or sedimentation.

Environmental Fate (Exposure): Avoid contaminating waterways, drains and sewers.

Bioaccumulative Potential: No information available on bioaccumulation for this product.

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## 13 DISPOSAL CONSIDERATIONS

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PRODUCT DISPOSAL: Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change waste management options. State and local disposal regulations may differ from federal disposal regulations.

Container disposal: Dispose of container and unused contents in accordance with federal, state and local requirement.

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**14. TRANSPORT INFORMATION**

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Road and Rail Transport: Not Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code(ADG Code) for transport by Road and Rail: NON DANGEROUS GOODS.

Marine Transport : Not Classified As Dangerous Goods by the Criteria of the International Maritime Dangerous Goods Code(IMDG CODE) for transport by sea: NON DANGEROUS GOODS.

Air Transport : Not Classified as Dangerous Goods by the criteria of the International Air Transport Association(IATA) Dangerous Goods Regulation for Transport by Air: NON DANGEROUS GOODS.

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**15. REGULATORY INFORMATION**

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IMIDACLOPRID Technical CAS No: 7440-44-0

Poisons Schedule: N/A

EPG: N/A

AICS Name: STEAM PROCESSED ACTIVATED CARBON

HSNO Hazard Classification: No data available.

ERMA Approval Code: HSR001271

This product has been tested according to the UN transport of dangerous goods test protocol for spontaneously combustible materials. It has been specifically determined that this product does not meet the definition of a self heating substance or any hazard class, and therefore is not a hazardous material and not regulated. Classified as non-hazardous.

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**16. OTHER INFORMATION**

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This MSDS summarizes E-Rotek Water Systems Co., Ltd. Steam Processed Activated Carbon best knowledge of the health and safety hazard information of the selected substance and how to safely handle the selected substance in the workplace however E-Rotek Water Systems Co., Ltd. Steam Processed Activated Carbon expressly disclaims that the MSDS is a representation or guarantee of the chemical specifications for the substance.

Each user should read the MSDS and consider the information in the context of how the selected substance will be handled and used in the workplace including its use in conjunction with other substances.