

**MATERIAL SAFETY DATA SHEET****Activated Carbon****Section 01 - Chemical And Product And Company Information**

Product Identifier Activated carbon (All Grades)

Product Use Water purification, gold recovery, and air scrubbing

Supplier Name ClearTech Industries Inc.
1500 Quebec Avenue
Saskatoon, SK. Canada
S7K 1V7

Prepared By ClearTech Industries Inc. Technical Department
Phone: 1 (800) 387-7503

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24-Hour Emergency Phone 1 (800) 387-7503

Section 02 - Composition / Information on Ingredients

Hazardous Ingredients Activate Carbon 100%

CAS Number Activated Carbon 7440-44-0

Synonym (s) Activated granular carbon, activated powdered carbon, pelleted activated carbon, activated charcoal, animal bone black,

Section 03 - Hazard Identification

Inhalation Non-toxic though inhalation

Skin Contact / Absorption Not Available

Eye Contact Mechanical dust irritation

Ingestion Non-toxic though ingestion

Exposure Limits OSHA/PEL= 5mg/m³ as resp.
ACGIH/TLV= 10mg/m³ as total

Section 04 - First Aid Measures

- Inhalation**..... Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.
- Skin Contact / Absorption**..... Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
- Eye Contact**..... Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek medical attention.
- Ingestion**..... No known health effects. Seek medical attention if any problems are experienced.
- Additional Information**..... Not Available

Section 05 - Fire Fighting

- Conditions of Flammability**..... Non-combustible under normal circumstances. Once ignited, the fire generally burns slowly (smolder) with a dull glow and may be difficult to detect.
- Means of Extinction**..... Use water spray, alcohol foam, dry chemical or carbon dioxide.
- Flash Point**..... Not Applicable
- Auto-ignition Temperature**..... > 220°C
- Upper Flammable Limit** Not Applicable
- Lower Flammable Limit**..... Not Applicable
- Hazardous Combustible Products**.... Carbon monoxide, formaldehyde, and carbon dioxide. Contact with strong oxidizers (ozone, liquid oxygen) may cause rapid combustion.
- Special Fire Fighting Procedures**..... Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
- Explosion Hazards**..... Airborne dust may create an explosion hazard.



Section 06 - Accidental Release Measures

- Leak / Spill**..... Wear appropriate personal protective equipment. Ventilate area. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Vacuum or shovel spilled material and place in closed container for proper disposal.
- Deactivating Materials**..... Not Available

Section 07 - Handling and Storage

- Handling Procedures**..... Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.
- Storage Requirements**..... Store in a clean, well ventilated area away from oxidizers, acids, ignition sources, heat and combustible materials.

Section 08 - Personal Protection and Exposure Controls

Protective Equipment

- Eyes**..... Chemical goggles, full-face shield, or a full-face respirator is to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.
- Respiratory**..... Respiratory protection is not normally required. If use creates dust formations, then a NIOSH-approved respirator with a dust cartridge is recommended. Wet activated carbon removes oxygen from air causing a severe hazard to workers inside confined spaces. Before entering such an area, sampling and work procedures for low oxygen levels should be taken (such as wearing a self-contained breathing apparatus).
- Gloves**..... Impervious gloves of chemically resistant material (rubber or PVC) should be worn. Wash contaminated clothing and dry thoroughly before reuse.
- Clothing**..... Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
- Footwear**..... No special footwear is required other than what is mandated at place of work.
- Other**..... Not Available



Engineering Controls

Ventilation Requirements..... Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other..... Emergency shower and eyewash should be in close proximity.

Section 09 - Physical and Chemical Properties

Physical State..... Solid

Odor and Appearance..... Black odourless particulate solid, pellet, or powder

Odor Threshold..... Not Applicable

Specific Gravity (Water=1)..... 0.25 – 0.60

Vapor Pressure (mm Hg, 20°C)..... Not Applicable

Vapor Density (Air=1)..... Not Applicable

Evaporation Rate..... Not Applicable

Boiling Point..... Maximum 4000°C

Freeze/Melting Point..... > 3500°C

pH..... Not Applicable

Water/Oil Distribution Coefficient..... Not Applicable

Bulk Density..... > 400kg/m³

% Volatiles by Volume..... 0%

Solubility in Water..... Insoluble

Molecular Formula..... C

Molecular Weight..... 12.011

Section 10 - Stability and Reactivity

- Stability**..... Stable under normal conditions.
- Incompatibility**..... Strong oxidizers such as ozone, liquid oxygen, chlorine, potassium permanganate.
- Hazardous Products of Decomposition**.. Carbon monoxide may be generated in the event of a fire (especially with incomplete combustion in an enclosed space).
- Polymerization**..... Will not occur

Section 11 - Toxicological Information

- Irritancy**..... Not Available
- Sensitization**..... Not Available
- Chronic/Acute Effects**..... Not Available
- Synergistic Materials**..... Not Available
- Animal Toxicity Data**..... LD₅₀(rat,oral): >10g/kg
LC₅₀(rat, inhalation): >64.4mg/L
- Carcinogenicity**..... Not considered to be carcinogenic as per IARC, NTP, and OSHA.
- Reproductive Toxicity**..... Not Available
- Teratogenicity**..... Not Available
- Mutagenicity**..... Not Available

Section 12 - Ecological Information

- Fish Toxicity**..... Not Available
- Biodegradability**..... Not Available
- Environmental Effects**..... Not Available



Section 13 - Disposal Considerations

Waste Disposal..... Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 - Transportation Information

TDG Classification

Class..... Not regulated

Group..... Not regulated

PIN Number..... Not regulated

Other..... Secure containers (full and/or empty) with suitable hold down devices during shipment.

Section 15 - Regulatory Information

WHMIS Classification.....Not a controlled product

Revision Date.....December 19, 2013

NOTE: THE PRODUCT LISTED ON THIS MSDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS MSDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 - Other Information

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / MSDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution[®] initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Material Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service or technical service department.



ClearTech Industries Inc. - Locations

Corporate Head Office: 1500 Quebec Avenue, Saskatoon, SK, S7K 1V7

Phone: 306-664-2522

Fax: 306-665-6216

www.ClearTech.ca

Location	Address	Postal Code	Phone Number	Fax Number
Richmond, B.C.	12431 Horseshoe Way	V7A 4X6	1 (800) 387-7503	1 (888) 281-8109
Port Coquitlam, B.C.	2023 Kingsway Ave	V3C 1S9	1 (800) 387-7503	1 (888) 281-8109
Calgary, AB.	5516E - 40 th St. S.E.	T2C 2A1	1 (800) 387-7503	1 (888) 281-8109
Edmonton, AB.	11750 - 180 th Street	T5S 1N7	1 (800) 387-7503	1 (888) 281-8109
Saskatoon, SK.	2302 Hanselman Avenue	S7L 5Z3	1 (800) 387-7503	1 (888) 281-8109
Regina, SK.	555 Henderson Drive	S42 5X2	1 (800) 387-7503	1 (888) 281-8109
Winnipeg, MB.	340 Saulteaux Crescent	R3J 3T2	1 (800) 387-7503	1 (888) 281-8109
Mississauga, ON.	7480 Bath Road	L4T 1L2	1 (800) 387-7503	1 (888) 281-8109

24 Hour Emergency Number - All Locations – 1 (800) 387-7503