



Safety Data Sheet

Section 01 - Product And Company Identification

Product Identifier	Activated carbon (Steam Activated)
Other Means of Identification	Activated granular carbon, activated powdered carbon, pelleted activated carbon, activated charcoal, animal bone black.
Product Use and Restrictions on Use	Water purification, gold recovery, and air scrubbing
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7V 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
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Section 02 - Hazard Identification

GHS-Classification

Eye Corrosion/Irritation	Category 2
STOT-Repeated Exposure	Category 2

Physical Hazards

No known physical hazards.

Warning

Hazard Statements

H319 – Causes serious eye irritation.

H373 – May cause damage to organs through prolonged or repeated exposure.

Pictograms



Precautionary Statements

P264 – Wash hands thoroughly after handling.

P280 – Wear eye protection and face protection.

P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 – If eye irritation persists: Get medical advice/attention.

P260 – Do not breathe dust.

P314 – Get medical advice/attention if you feel unwell.

P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Activated Carbon	7440-44-0	100%	Not Available

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 immediate 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	Contact lenses should never be worn when working with this product. Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. If irritation persists, seek medical attention.
Ingestion	No known health effects. Seek medical attention if any problems are experienced.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Small fires: Carbon dioxide dry chemical powder, sand. Large fires: regular foam.
Unsuitable Extinguishing Media	NOTE: Violent steam generation and frothing may occur on direct application of water stream.
Specific Hazards Arising From the Chemical	During a fire, toxic gases are generated.
Special Protective Equipment for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
Further Information	Wet activated carbon removes oxygen from air and can lower the concentration of oxygen inside vessels containing carbon and other confined spaces. During a fire, toxic gases are generated.

Section 06 - Accidental Release Measures

Personal Precautions/ Protective Equipment/ Emergency Procedures	Wear appropriate personal protective equipment. Ventilate area. Only enter area with PPE. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Flush with water to remove any residue.
Environmental Precautions	Prevent materials from entering sewers.
Methods For Cleaning Up	Vacuum or shovel spilled material and place in closed container for proper disposal.

Section 07 - Handling and Storage

Precautions for Safe Handling	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. Minimize airborne spreading of dust.
Conditions for Safe Storage	Store in a clean, well-ventilated area away from oxidizers, acids, ignition sources, heat, and combustible materials.
Incompatibilities	Strong oxidizers such as ozone, liquid oxygen, chlorine, potassium permanganate. Strong acids, Acetone, Alkali metals.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Activated Carbon	Not established.		

Engineering Control(s)

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face	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.
Hand Protection	Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.
Skin and Body Protection	Body suite, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. No special footwear is required other than what is mandated at place of work.
Respiratory Protection	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).
Thermal Hazards	Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State	Particulate solid, pellet or powder
Colour	Black
Odour	Odourless
Odour Threshold	Not Applicable

Property

pH	Not applicable. Activated carbon bearing inorganic and chemically active groups on its surface may alter the pH of liquids to which it is added.
Melting Point/Freezing Point	>3500°C
Initial Boiling Point and Boiling Range	Maximum 4000°C
Flash Point	Not Applicable
Evaporation Rate	Not Applicable
Flammability	Not Applicable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapour Pressure (mm Hg, 20°C)	Not Applicable
Vapour Density (Air=1)	Not Applicable
Relative Density	Not Available
Solubility(ies)	Insoluble in water
Partition Coefficient: n-octanol/water	Not Applicable
Auto-ignition Temperature	~ 300°C [Depends on particle size and physical form.]
Decomposition Temperature	Not Available
Viscosity	Not Applicable
Explosive Properties	Airborne dust may create an explosion hazard.
Specific Gravity (Water=1)	0.25 – 0.60
% Volatiles by Volume	0%
Formula	C
Molecular Weight	12.011

Section 10 - Stability and Reactivity

Reactivity	Not Available
Chemical Stability	Stable under normal conditions.
Possibility of Hazardous Reactions	Self-heats due to slow oxidation by air. Presence of moisture accelerates self-heating.
Conditions to Avoid	High temperatures, sparks, open flames and all other sources of ignition. Minimize airborne spreading of dust. High concentrations of organics in air will cause temperature rise due to heat of adsorption. At very high concentration levels this may cause a bed fire. High concentrations of Ketones and Aldehydes may cause a bed temperature rise due to adsorption and oxidation.

Incompatible Materials	Strong oxidizers such as ozone, liquid oxygen, chlorine, potassium permanganate. Strong acids, Acetone, Alkali metals.
Hazardous Decomposition Products	Carbon monoxide may be generated in the event of a fire (especially with incomplete combustion in an enclosed space).

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD ₅₀	Dermal LD ₅₀	LC ₅₀
Activated Carbon	>10,000 mg/kg	Not Available	>64.4mg/L (rat, inhalation)

Chronic Toxicity – Carcinogenicity

Component	IARC
Activated Carbon	Not considered to be carcinogenic as per IARC, NTP, and OSHA.

Skin Corrosion/Irritation	Dust may cause mechanical irritation.
Ingestion	Non-toxic though ingestion
Inhalation	Non-toxic though inhalation
Serious Eye Damage/Irritation	Causes slight to mild irritation of the eyes.
Respiratory or Skin Sensitization	None known.
Germ Cell Mutagenicity	No adverse mutagenic effects are anticipated.
Reproductive Toxicity	No adverse reproductive effects are anticipated.
STOT-Single Exposure	May cause respiratory tract irritation
STOT-Repeated Exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard	Not Available
Synergistic Materials	None known

Section 12 - Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Carbon	Not Available	Not Available	Not Available
Biodegradability	Not Available		
Bioaccumulation	No evidence of bioaccumulation or tainting of seafood.		
Mobility	Not Available		
Other Adverse Effects	Not Available		

Section 13 - Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 - Transport Information

UN Number	Not Regulated
UN Proper Shipping Name	Not Regulated
Transport Hazard Class(es)	Not Regulated
Packaging Group	Not Regulated
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available

TDG

Other Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 - Regulatory Information

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

Section 16 - Other Information

Preparation Date August 4, 2015

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 / SDS 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 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.

References:

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB

ClearTech Industries Inc. - Locations

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