SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Name: Activated Charcoal Powder
Product Code: 502-970X

1.2 Intended Use: Compound used in customer substance/mixture/product

1.3 Supplier: Majestic Mountain Sage Inc
2490 S 1350 W
Nibley, 84321 - United States of America
T 435.755.0863 - F 435.755.2108
www.TheSage.com

1.4 Emergency Telephone Number
No additional information available

SECTION 2: Hazards Identification

2.1 GHS Classification and Labeling of the Substance or Mixture

Label Elements: None
Signal Word: Warning
Hazard Statement: May form combustible dust concentration in air.
Hazard Symbol: None

2.2 Precautionary Statement

Response: In case of fire: Use appropriate media to extinguish. Wash hands after handling.

Storage: Store away from incompatible materials.

Disposal: Dispose of waste and residues in accordance with local authority requirements.

2.3 Hazard Information

Exposure Limits: See Section 8 of the SDS.
Physical Hazards: Not classified
Health Hazards: Not classified
OSHA Defined Hazards: Combustible dust

2.4 Other Hazards: Hazard(s) not otherwise classified (HNOC) Supplemental information:
This material does not ignite easily; however, feasible electrical precautions against dust explosion are recommended. Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate, etc., may result in fire. Wet activated carbon depletes oxygen from 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. Spent (or used) activated carbon may exhibit properties pertaining to the adsorbed components.

SECTION 3: Composition/Information on Ingredients

3.1 Substances

<table>
<thead>
<tr>
<th>Substances</th>
<th>Weight %</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activated Carbon</td>
<td>100</td>
<td>7440-44-0</td>
</tr>
</tbody>
</table>

3.2 Mixtures
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
SECTION 4: First Aid Measures

4.1 Description of First Aid Measures

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist. If dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device. Get medical attention immediately.

Eye Contact: Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

Skin Contact: Wash off with soap and water. Get medical attention if irritation develops and persists.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

4.2 Most Important Symptoms / Effects, Acute and Delayed
Dusts may irritate the respiratory tract, skin and eyes. Coughing. Exposed individuals may experience eye tearing, redness, and discomfort.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed
Treat symptomatically.

4.4 General Information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

SECTION 5: Firefighting Measures

5.1 Extinguishing media

Suitable: Water fog. Foam. Dry chemical powder. Carbon Dioxide (CO₂). Apply extinguishing media carefully to avoid creating airborne dust. Avoid high pressure media which could cause the formation of a potentially explosive dust-air mixture.

Unsuitable: Do not use water jet as an extinguisher, as this will spread the fire.
5.2 Special Hazards Arising from the Substance or Mixture
Material burns slowly without flame. Activated Carbon which has been allowed to smolder for a long time in a confined space may accumulate carbon monoxide above its permissible exposure limit. Do not enter permitted confined space or enclosed area with proper PPE.

High concentrations of dust may form combustible dust concentrations in air.

Contact with strong oxidizers such as ozone, liquid oxygen, chlorine, permanganate, etc., may result in fire.

During fire, hazardous combustion products are released that may include: Carbon oxides (CO_x)

5.3 Special Protective Equipment and Precautions for Firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

In case of fire and/or explosion do not breathe fumes. Move containers from fire are if you can do so without risk.

5.4 Firefighting Equipment/Instructions
Use standard firefighting procedures and consider the hazards of other involved materials

5.5 General Fire Hazards
May form combustible dust concentrations in air.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures
Keep people away from and upwind of spill/leak. Use only non-sparking tools. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.

6.2 Environmental Precautions
Avoid discharge into drains, water courses or into the ground.
6.3 Method and Material for Containment and Clean-up
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). The product is immiscible with water and will sediment in water systems. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. For waste disposal, see Section 13 of the SDS.

Used or spent activated carbon may contain pollutants which require the material to be treated according to specific laws or local permits and may require the use of risk management measures when handling the products.

6.4 Reference to Other Sections
Section 8 of the SDS

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling
Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary fires. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Do not enter storage areas or confined spaces unless adequately ventilated. Oxygen concentration should not fall below 19.5% at sea level (pO₂ - 135 mmHg). Oxygen Level alarms are advisable in enclosed storage areas/confined spaces containing wet activated carbon. Mechanical ventilation or local exhaust ventilation may be required. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
7.2 Conditions for Safe Storage
Keep dry. Avoid high temperatures. Protect from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Access to storage of wet activated carbon should be restricted. Oxygen level alarms are advisable in enclosed storage rooms containing wet activated carbon.

7.3 Incompatibilities
Heat and source of ignition, strong oxidizing acids or oxidants

7.4 Specific End Use
Not available

8.1 Control Parameters

**Occupational Exposure Limits:**

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Material</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activated Carbon</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Respirable fraction</td>
</tr>
<tr>
<td>(CAS 7440-44-0)</td>
<td></td>
<td>15 mg/m3</td>
<td>Total Dust</td>
</tr>
</tbody>
</table>

**US. NIOSH: Pocket Guide to Chemical Hazards**

<table>
<thead>
<tr>
<th>Material</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activated Carbon</td>
<td>TWA</td>
<td>2.5 mg/m3</td>
<td>Respirable</td>
</tr>
<tr>
<td>(CAS 7440-44-0)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Biological Limit Values:** No biological exposure limits noted for the ingredient(s).

8.2 Engineering Controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Low oxygen work procedures should be in place - Wet activated carbon depletes oxygen from 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. Alternatively, the room may be fitted with oxygen level sensors having an alarm setting at 18 vol%.

8.3 Personal Protection Information

**Respiratory Protection:**
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established). An approved respirator must be worn.

**Eye/face Protection:**
Wear safety glasses with side shields (or goggles).

**Skin Protection-Hand Protection:**
Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

**Skin Protection-Other:**
Wear suitable protective clothing.

**Thermal Hazard:**
Wear appropriate thermal protective clothing, when necessary.

8.4 General Hygiene
When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
</tbody>
</table>
SECTION 10: Stability and Reactivity

10.1 Reactivity
This product is stable and non-reactive under normal conditions of use, storage and transport.

10.2 Chemical Stability
Material is stable under normal conditions

10.3 Hazardous Polymerization
Not available

10.4 Possibility of Hazardous Reactions
Contact with strong oxidizers like chlorine, liquid oxygen, permanganate, ozone, may result in rapid combustion and possible explosion. Wet activated carbon depletes oxygen from 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.

10.5 Conditions to Avoid
Keep away from heat, sparks and open flame. Do not contact with incompatible materials. Minimize dust generation and accumulation.
SECTION 11: Toxicological Information

10.6 Incompatible Materials
Keep away from strong oxidizing acids and strong oxidants.

10.7 Hazardous Decomposition Products
No hazardous decomposition products are known.

11.1 Information on Toxicological Effects

Routes of Entry:

Inhalation: Prolonged inhalation may be harmful. Prolonged and repeated overexposure to dust can lead to pneumoconiosis. Pre-existing pulmonary disorders, such as emphysema, may possibly be aggravated by prolonged exposure to high concentrations of carbon.

Skin Contact: Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Eye Contact: May irritate eyes.

Ingestion: May cause discomfort if swallowed. When large amounts are ingested orally, congestion may occur. However, ingestion is not likely to be a primary route of occupational exposure.

Acute Toxicity: Not expected to be acutely toxic.

Skin Corrosivity/Irritation: May cause skin irritation.

Eye Damage/Irritation: May cause eye irritation.

Sensitization: Respiratory sensitization: Not a respiratory sensitizer. Skin sensitization: This product is not expected to cause skin sensitization.

Repeated Dose Toxicity
Specific Target Organ Toxicity - Single Exposure: Not classified
Specific Target Organ Toxicity - Repeated Exposure: Not classified
Carcinogenicity: This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity: Not listed.
NTP Report on Carcinogens: Not listed.

Mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproduction Toxicity: This product is not expected to cause reproductive or developmental effects.

Aspiration Hazard: Due to the physical form of the material it is not an aspiration hazard.

Chronic Effects: Prolonged inhalation may be harmful

11.12 Further Information
Excessive concentrations of activated carbon may reduce visibility, cause unpleasant deposits in the eye, ears, and nasal passages, or irritate the skin or mucous membranes by mechanical means. However, normal workplace exposure has not been determined to cause a significant health effect.

SECTION 12: Ecological Information

12.1 Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2 Persistence and Degradability
The product solely consists of inorganic compounds which are not biodegradable.

12.3 Bioaccumulation Potential
Bioaccumulation is unlikely to be significant because of the low water solubility of the product.

12.4 Mobility in Soil
The product is insoluble in water and will sediment in water systems.

12.5 Results of PBT and vpvB Assessment
Not available.
12.6 Other Adverse Effects
No other adverse environment effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

**Disposal Instructions:** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local Disposal Regulations:** Dispose in accordance with all applicable regulations.

**Hazardous Waste Code:** The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from Residues Unused Products:** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. (See: Disposal Instructions).

**Contaminated Packaging:** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport Information

14.1 Transport Regulations Information

**DOT:** Not regulated as dangerous goods.

**IATA:** Not regulated as dangerous goods.

**IMDG:** Not regulated as dangerous goods.
14.2 UN Information

UN Number Not available
UN Proper Shipping Name Not available
Transport Hazard Class(es) Not applicable
Packing Group Not applicable
Environmental Hazards Not applicable
Marine Pollutant The product is not classified as marine pollutant
Special Precautions for User Not available
IMDG/IMO Not regulated as dangerous goods.

14.3 Transportation in Bulk According to Annex ii of MARPOL73/78 and the IBC Code
Not applicable

14.4 General Information
Wet activated carbon depletes oxygen from 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 15: Regulatory Information

15.1 Safety Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

US Federal Regulations
This product is a “Hazardous Chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.


Superfund Amendments and Reauthorization Act of 1986 (SARA) Hazard Categories:
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely Hazardous Substance
Not listed.

SARA 311/312 Hazardous Chemical
Yes

SARA 313 (TRI reporting)
Not regulated.

15.2 Other Federal Regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112® Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

15.3 US State Regulations

US Massachusetts RTK - Substance List
Not regulated

US New Jersey Worker and Community Right-to-Know Act
Activated Carbon (CAS 7440-44-0)

US Pennsylvania Worker and Community Right-to-Know Law
Not listed.

US Rhode Island RTK
Not regulated.

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)
This material is not known to contain any chemical currently listed as carcinogens or reproductive toxins.
### 15.4 International Inventories

<table>
<thead>
<tr>
<th>Country(s) or Region</th>
<th>Inventory Name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemical List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td></td>
<td>Yes</td>
</tr>
</tbody>
</table>

* A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s).
A “No” indicates that one or more components of this product are not listed or exempt from listing on the inventory administered by the governing country(s).
16.1 HMIS® Ratings
Health: 1
Flammability: 1
Physical Hazard: 0

Caution: HMIS® ratings are bases on a 0-4 rating scaled, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on SDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® rating are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchases exclusively from J.J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

16.2 NFPA Ratings

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Notes: This safety data sheet is based on the properties of the material known at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment holds no responsibility. This document is not intended for quality assurance purposes.