MATERIAL SAFETY DATA SHEET

1. Identification of the substance or preparation and the company/undertaking

1.1 Identification of substance or preparation: Dr.G’s Chemical Media Filter

1.2 Use of the substance preparation: Heavy Metals, & Organic Compounds Absorbent for Aquarium use

Chemical Name: Mix of Carbon 90-100%
Inert Ingredients 0-1-%,
CAS # 7447-44-0
Element, Group IV-A

For Activated Carbon MSDS Please refer to the Dr.G’s Activated Carbon MSDS

AND

Ferric Oxide

For Ferric Oxide MSDS Please refer to the Dr.G’s Phosphate & Silica Remover MSDS

AND

Polystyrene sulphonic acid,
Polyvinyl benzyl trimethyl ammonium hydroxide as an Ion exchage Adsorvent (See Below)

1.3 Company/undertaking identification: Dr.G’s Marine Aquaculture
3160 SW 189th Terrace
Miramar, Florida 33029 USA
Tel: +1-305-490-5444
Fax: +1-954432-2838

1.4 Emergency Telephone: +1-305-490-5444
Polystyrene sulphonic acid, Polyvinyl benzyl trimethyl ammonium hydroxide as an Ion exchange Adsorvent

2. Hazards Identification

Emergency Overview
- Physical state: gold, amber, light brown, dark brown, black, blue, green solid bead
- Odor: odorless
- Contact with Eyes: WARNING - cause temporary eye irritation R36
- Contact with Skin: WARNING - May be slightly irritating to skin

Low hazard for usual industrial or commercial handling by trained personnel

OSHA regulatory status
- This product is not hazardous according to OSHA 19CFR 1910,1200

Potential health effects:
- Inhalation: Limited inhalation hazard at normal work temperatures
- Eye Contact: May cause temporary eye irritation
- Skin Contact: May be slightly irritating to skin
- Ingestion: Under normal conditions of intended use, this material does not pose a risk to health, however ingestion may cause irritation and malaise
- Chronic Health Effects: No other specific acute or chronic health impact noted
- Target Organs (s): Eye / Skin
- Potential Physical / Chemical Effects: This product is a combustible per NFPA

Environmental effects
- The environmental hazard of the product is considered limited

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Concentration</th>
<th>CAS Number</th>
<th>R Phrases</th>
<th>Symbol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polystyrene sulphonic acid</td>
<td>20-45%</td>
<td>69011-18-3</td>
<td>R36</td>
<td>Xi</td>
</tr>
<tr>
<td>Polyvinyl benzyl trimethyl ammonium Hydroxide</td>
<td>20-45%</td>
<td>699011-20-7</td>
<td>R36</td>
<td>Xi</td>
</tr>
<tr>
<td>Water</td>
<td>35-60%</td>
<td>7732-18-5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. First Aid Measures

Inhalation
- No specific first aid measures noted

Eye Contact
- Any material that contacts the eye should be washed out immediately with water. If easy to do, remove any contact lenses. Get medical attention if any discomfort continues

Skin Contact
- Wash skin with soap and water

Ingestion
- Immediately rinse mouth and drink plenty of water (200-300 ml). Large Quantities: Get medical attention if irritation persists.

5. Fire-fighting measures

Flammable Properties
- NFPA Rating Fire = 1

Extinguishing media
- Extinguishing with foam, carbon dioxide, dry powder or water fog

Unsuitable extinguishing media
- Not applicable

Special fire fighting procedures
- Self-contained breathing apparatus must be used to protect firefighters from toxic and irritating fumes and full protective clothing must be worn in case of fire

Unusual fire and explosion hazards
- Not available

Hazardous combustion products
- Monomers, residual organics, amines, carbon, sulfur and nitrogen oxides

Protective measures
- Selection of respiratory protection for fire fighting: follow the general precautions indicated in workplace

6. Accidental release measures
Personal precautions
- Keep people away

Environmental precautions
- Do not allow to enter public sewers and watercourses

Methods for cleaning up
- Sweep as much as possible and transfer to plastic container for recovery or disposal

7. Handling and storage
7.1 Handling
- Avoid contact with eyes and prolonged skin contact. See section 8 of the MSDS for personal protective equipment

7.2 Storage
- Store at temperatures above 0°C
- Store at temperature below 40°C
- Keep in original container
- Keep container tightly closed to prevent the loss of water
- Storage period is unlimited in tightly closed containers

8. Exposure controls/personal protection
8.1 Exposure limits
- No exposure limits noted for substances

8.2 Exposure Controls
- Provide adequate ventilation

8.2.1 Occupational exposure controls
- Respiratory protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to and acceptable level (in countries where exposure limits have not been established), and approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: High efficiency particulate respirator.
- Eye protection: Risk of contact: Wear protective safety goggles.
- Hand protection: Risk of contact: Wear protective gloves. Suitable gloves can be recommended by the glove supplier
- Skin protection: Risk of contact: Use skin protection. It is a good industrial hygiene practice to minimize skin contact

8.2.2 Hygiene measures
- Always observe personal hygiene practices, such as washing after handling the material and before eating, drinking, and or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

8.2.3 Environmental exposure controls
- Environmental manager must be informed of mayor spillages

- **Physical and chemical properties**
  9.1 – Appearance: gold, amber, light brown, dark brown, black, blue, green solid bead
  - Odor: none
  - Odor threshold: not available
  - Physical state: Solid (bead)
  - pH: acidic/ alkaline
  - Melting point: Not available
  - Freezing point: Not available
  - Boiling point: Not available
  - Flash point: Not available
  - Evaporation rate: Not available
  - Flammability (solid,gas): Not available
  - Flammability limit: Upper/Flammability Limit
  - Lower (%):Not available
  - Vapor Pressure: Not available
  - Vapor Density (Air=1): Not available
  - Specific Gravity: 1.02-1.28
  - Solubility in Water: Insoluble
  - Solubility (Other): Not available
  - Partition Coefficient (N-Octanol/water) : Not available
  - Auto Ignition Temperature: Not available
  - Decomposition Temperature: Not available

9. Stability and reactivity
10.1 Conditions to avoid
- Considered stable under normal condition
- Avoid heat
10.2 Materials to avoid
- Avoid contact with strong oxidizing chemicals, such as nitric acid, may produce low molecular weight organics that may form explosive mixtures
10.3 Hazardous decomposition products
- At elevated temperatures oxygen starved combustion may yield carbon monoxide;
10.4 Possibility of Hazardous reactions: incompatibility with strong oxidizing materials
10. Toxicological information

Acute Toxicity
- No evidence of acute toxicity

Carcinogenity
- No evidence of carcinogenic effects

Teratogenicity
- No evidence of reproductive effects

Mutagenicity
- No evidence of mutagenic effects

11. Ecological information

12.1 Ecotoxicity
- No data available

12.2 Mobility
- The product is insoluble in water and will sediment in water systems

12.3 Persistence and degradability
- The product is not readily degradable

12.4 Bioaccumulative potential
- Potential to bioaccumulate is low

12.5 Other adverse defects
- No data available

12. Disposal considerations

General Information
- Dispose of waste and residues in accordance with local authority requirements

Disposal Methods
- No specific disposal method required

Container
- Since emptied containers may retain product residue, follow label warnings even after container is emptied

13. Transport information

- DOT Not regulated
- TDG Not regulated
- IATA Not regulated
- IMDG Not regulated

14. Regulatory information

Canadian Controlled Products Regulations
- This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33, and the MSDS contains all required information

WHMIS Classification
- This is not a WHMIS controlled product

Mexican Dangerous Statement
- This product is not dangerous according to Mexican regulations

Applicable International Laws and regulations
- This substance meets OECD polymer definition and is therefore exempt from REACH registration

Inventory Status
- This product or all components are listed or exempt from listing on the following inventory: TSCA, DSL

US Regulations
- CERCLA Hazardous Substance List (40 CFR 302.4): Not regulated
- SARA Title III
- Section 302 Extremely Hazardous Substances (40 CFR 355, Appendix A): Not regulated
- Section 311/312 (40 CFR 370): Acute (immediate) Chronic (Delayed) Fire Reactive Pressure Generating
- Section 313 Toxic Release Inventory (40 CFR 372): Not regulated
- Clean Air Act (CAA) Section 112® Accidental Release Prevention (40 CFR 68.130): Not Regulated
- Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): Not regulated
- Drug Enforcement Act: Not regulated
- TSCA
  - TSCA Section $a) Final Test Rules & Testing Consent Orders: Not regulated
  - TSCA Section 5(a)(2) Final Significant New Use Rules (SNURs) (40CFR 721, Subpt.E): Not regulated
  - TSCA Section 5(e) PMN-Substance Consent Orders: Not regulated
  - TSCA Section 12(b) Export Nootification (40 CFR 707, Subpt.D) : Not regulated
- State Regulations
  - California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) : Not regulated
  - Massachusetts Right-To-Know List : Not regulated
  - Minnesota Hazardous Substances List: Not regulated
  - New Jersey Right-To-Now List : Not regulated
  - Pennsylvania Right-To-Now List : Not regulated
  - Rhode Island Right-To-Now List : Not regulated
15. Other Information

HAZARD RATINGS

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Fire Hazard</th>
<th>Instability</th>
<th>Special Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFPA</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Hazard rating: 0-minimal, 1-slight, 2-moderate, 3-serious, 4-severe
NFPA Label colored diamond code: Blue-Health, Red-Flammability, Yellow-Instability, White-Special Hazards

<table>
<thead>
<tr>
<th>Health Hazard</th>
<th>Flammability</th>
<th>Physical Hazard</th>
<th>Personal Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Hazard rating: 0-minimal, 1-slight, 2-moderate, 3-serious, 4-severe
HMIS Label colored bar code: blue- Health, Red-Flammability, Orange-Physical Hazards, White-Special

Relevant R phrases: none

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Note:
The information provided in this material safety data sheet is based on current knowledge about the product and current legal requirements and standards. It related specifically to health, safety and environmental requirements and standards, may not identify all hazards associated with the product or its uses and misuses, does not signify any warranty with regards to the properties of the product, and only applies when the product is used for the purposes indicated in section 1. This product is not sold as suitable for other purposes and such other usage may cause risks not mentioned in this safety data sheet.