# MATERIAL SAFETY DATA SHEET

**Product Name:** EcoStar Evacuation System Cleaner

## 1. Products and Company Identification

<table>
<thead>
<tr>
<th>Product Name</th>
<th>MSDS Code Number</th>
<th>Last Revision: January 30, 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>EcoStar Evacuations System Cleaner</td>
<td>Refer to part number</td>
<td></td>
</tr>
<tr>
<td>Trade Name &amp; Synonyms: EcoStar Evacuation System Cleaner</td>
<td>Manufactured for: Bio-Pure Products, Inc., Minden Nevada</td>
<td></td>
</tr>
<tr>
<td>Chemical Name: no name assigned to mixture</td>
<td>Address P.O. Box 2230 Minden, NV 89423</td>
<td><a href="http://www.biopureproducts.com">www.biopureproducts.com</a></td>
</tr>
<tr>
<td>C.A.S. Number: Citric Acid 77-92-9 &lt;2%; Sodium Benzoate 532-32-1 &lt;2%; Sodium Propionate 137-49-6 &lt;2%; Guar Gum 9000-30-0 &lt;2%; Xanthan Gum 157-40-6 &lt;2%; Microorganism, Class 1 Biosafety n/a &lt;2%; Water 7732-18-5 Balance</td>
<td>Information Telephone Number: 1.775.340.7303</td>
<td></td>
</tr>
</tbody>
</table>

## 2. Composition of Ingredients

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>C.A.S. Number</th>
<th>Exposure Limits</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrated Silicon Dioxide</td>
<td>7631-86-9</td>
<td>&lt; 1</td>
<td></td>
</tr>
</tbody>
</table>

## 3. Hazard Identification

**Emergency Overview:** The liquid is EPA GRAS listed and generally regarded as safe.

<table>
<thead>
<tr>
<th>Routes of Exposure</th>
<th>Signs and Symptoms</th>
<th>Single, Repeated or Lifetime Exposure</th>
<th>Severity (Mild, Moderate, Severe)</th>
<th>Acute and Chronic Health Effect(s)</th>
<th>Target Organ(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Irritation, redness and pain</td>
<td>Single</td>
<td>Mild</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Skin</td>
<td>Irritation on prolonged contact</td>
<td>Single</td>
<td>Mild</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Inhalation</td>
<td>N/E</td>
<td>Single</td>
<td>Mild</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Gastrointestinal disturbance</td>
<td>Single</td>
<td>Mild</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Medical Conditions Aggravated by Exposure: Respiratory, skin conditions or eye conditions.

Carcinogenicity (IARC, NTP): None

Potential Environmental Effects: None

## 4. First Aid Measures

<table>
<thead>
<tr>
<th>Routes of Exposure</th>
<th>First Aid Instructions</th>
<th>Immediate Medical Attention</th>
<th>Delayed Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye</td>
<td>Flush eyes with plenty of water.</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Skin</td>
<td>Wash with plenty of soapy water.</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Move individual into fresh air.</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Ingestion</td>
<td>If ingestion occurs, flush mouth with water, give person several glasses of water.</td>
<td>N/E</td>
<td>N/E</td>
</tr>
<tr>
<td>Other</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Note to Physicians (Treatment, Testing and Monitoring):

## 5. Fire and Explosion

<table>
<thead>
<tr>
<th>Flashpoint &amp; Method: N/A</th>
<th>Flammable (Explosive) - N/A</th>
<th>Autoignition Temperature - N/A</th>
<th>Other: None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flame Propagation or Burning Rate (for solids): N/E</td>
<td>Properties Contributing to Flammability Classification</td>
<td>Health-0, Flammability-0, Reactivity-0</td>
<td></td>
</tr>
<tr>
<td>Extinguishing Media: Water spray, foam, carbon dioxide or dry chemical.</td>
<td>Extinguishing Media to Avoid: None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. Accidental Release Measures

Containment Techniques: Discard in trash or pour down drain

Spill/Leak Clean-Up Procedures and Equipment: Wipe up with towels. Caution- solution may be slippery. Discard in trash. Dispose of container and unused contents in accordance with federal, state and local requirements.

Evacuation Procedures: None

Special Instructions: None

Reporting Requirements: None

7. Handling and Storage

Handling Practices and Warnings: Trained personnel use this product.

Store out of direct sunlight and away from sources of ignition. Store in ventilated, dry location.

8. Exposure Control/Personal Protection

Ventilation: Use in a well-ventilated area.

Other Engineering Controls: None

<table>
<thead>
<tr>
<th>Routes of Entry</th>
<th>Personal Protective Equipment (PPE) for Normal Use:</th>
<th>PPE for Emergencies:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye/Face</td>
<td>Wear goggles, safety glasses or a face shield.</td>
<td>Wear safety glasses.</td>
</tr>
<tr>
<td>Skin</td>
<td>Wear latex or nitrile gloves. Wear impervious protective clothing, including gloves, lab coat, apron or coveralls, as appropriate to prevent skin contact.</td>
<td>-</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Handle the product in a well-ventilated area. Under normal use, respirators are not required.</td>
<td>-</td>
</tr>
</tbody>
</table>

General Hygiene Considerations and Work Practices: Wear gloves as per usual precautions. Wash your hands following use. No eating, drinking or smoking while handling this product.

Protective Measures During Repair and Maintenance of Contaminated Equipment: If aerosols are generated, a disposable dust/mist respirator (N95) may be used. Personnel wearing respirators should be fit-tested and approved for respirator use under the OSHA Respiratory Protection Standard 29 CFR 1910.134.

Other Protective Measures and Equipment: None

9. Physical and Chemical Characteristics

Appearance: Light Brown

Odor: Earthy Smell

Normal Physical State:

- Liquid
- Gas
- Solid
- (Other)

Specific Gravity or Density (H2O=1): \(-1.04\)

Solubility in Water: YES

Boiling Point: N/A
Melting Point: N/A
Freezing Point: N/A

pH: \(-4.5\)

Vapor Pressure (mm Hg @ 20°C): N/A

Vapor Density (AIR=1): N/A

Evaporation Rate (Butyl Acetate = 1): Not known

Other: Completely miscible with water.

10. Stability and Reactivity Data

Incompatibility (Materials to Avoid): N/E

Hazardous Products Produced During Decomposition: Decomposition products of the minor components of this compound may include potentially hazardous byproducts including carbon dioxide and carbon monoxide, ammonia or oxides of sulfur or nitrogen.

Hazardous Polymerization? ☑ May Occur ☐ May Not Occur

Conditions to Avoid: None

Stability? ☑ Stable ☐ Unstable
### 11. Toxicological Information

Toxicity Data, Epidemiology Studies, Carcinogenicity, Neurological Effects, Genetic Effects, Reproductive Effects or Structure Activity Data

N/E

### 12. Ecological Information

Toxicity, Environmental Fate, Physical/Chemical Data or Other Data Supporting Environmental Hazard Statements: N/E

### 13. Disposal Considerations

Regulations: Dispose of container and unused contents in accordance with federal, state and local requirements.

Properties (Physical/Chemical) Affecting Disposal: N/E

### 14. Transport Information

<table>
<thead>
<tr>
<th>Regulated for shipping?</th>
<th>Proper Shipping Name</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Yes</td>
<td>EcoStar eVac Cleaner</td>
<td>DOT class-NR</td>
</tr>
</tbody>
</table>

Do changes in quantity, packaging or shipment method change product classification?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Other: None

Hazard Class: Non-hazardous

Identification Number: N/A

### 15. Regulatory Information

**Federal Regulations**

EPA GRAS LISTED – Generally regarded as safe.

Not listed on:
- Health & Safety reporting list
- Chemical Test rule TSCA section
- 12b SNUR list under TSCA
- CERCLA
- Clean Water Act Priority or toxic pollutant under the Clean Water Act
- Hazardous chemical list of OSHA – N/E

**International Regulations**

R 36/37/38 Irritating to eyes, skin, respiratory system.
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39 Wear suitable gloves and eye/face protection.

Hazard Symbol: N/A

WHMIS: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR. Australian Hazchem Code: None allocated.

AUSTRALIA: All the components of this material are listed on the Australian Inventory of Chemical Substances (AICS).

CANADA: All the components of this material are on the Canadian Domestic Substance List (DSL).

EUROPEAN UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.

JAPAN: All the components of this product are on the Existing & New Chemical Substance (ENCS) inventory in Japan, or have an exemption from...
**MATERIAL SAFETY DATA SHEET**

**Product Name:** EcoStar Evacuation System Cleaner

| Part Number(s): | ESC-16  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Release Date:</strong></td>
<td>May 1, 2014</td>
</tr>
</tbody>
</table>

| KOREA: All the components of this product are on the Existing Chemicals List (ECL) in Korea.  
| PEOPLES REPUBLIC OF CHINA: All the components of this material are listed on the draft Inventory of Existing Chemical Substances in China.  
| PHILIPPINES: All the components of this product are listed on the Philippine Inventory of Chemicals and Chemical Substances (PICCS)  
| **Other:** None |

## 16. Other Information

This information is based on our present knowledge; however, this shall not constitute a guarantee for specific product features. No toxicity data are available for this specific formulation. This health hazard assessment is based on information that is available for its components.

- N/A= not applicable.
- N/D= not determined.
- N/E= not established.