1. PRODUCT AND COMPANY IDENTIFICATION

Product Code: MORGAN-030-BULK
Product Name: Biodisan Plus
Company Name: Morgan-Gallacher, Inc.
8707 Millergrove Drive
Santa Fe Springs, CA  90670
Emergency Contact: CHEMTREC

Phone Number: +1  (562)695-1232
+1  (800)424-9300

2. HAZARDS IDENTIFICATION

Skin Corrosion/Irritation, Category 1B
Acute Toxicity: Oral, Category 4
Serious Eye Damage/Eye Irritation, Category 1
Corrosive To Metals, Category 1

GHS Signal Word: Danger
GHS Hazard Phrases:
H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.

GHS Precaution Phrases:
P102 - Keep out of reach of children.
P103 - Read label before use.
P262 - Do not get in eyes, on skin, or on clothing.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases:
P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P315 - Get immediate medical advice/attention.
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with plenty of water for 15 minutes.
P315 - Get immediate medical advice/attention.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342 - If experiencing respiratory symptoms:
P313 - Get medical advice/attention.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P315 - Get immediate medical advice/attention.

GHS Storage and Disposal Phrases:
P405 - Store locked up.
P501 - Dispose of contents/container in accordance to local, state and federal regulations.

OSHA Regulatory Status: This material is classified as hazardous under OSHA regulations.
Potential Health Effects
(Acute and Chronic):

**Inhalation:**
Causes chemical burns to the respiratory tract. Material is irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

**Skin Contact:**
May be harmful if absorbed through the skin. Causes skin burns.

**Eye Contact:**
Causes eye burns. Causes severe eye irritation. May cause painful sensitization to light.

**Ingestion:**
Toxic if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-38-2</td>
<td>Phosphoric acid</td>
<td>&lt;20.0 %</td>
</tr>
<tr>
<td>9016-45-9</td>
<td>Nonylphenol ethoxylate</td>
<td>&lt;15.0 %</td>
</tr>
</tbody>
</table>

### 4. FIRST AID MEASURES

**Emergency and First Aid Procedures:**

**In Case of Inhalation:** Remove from exposure and move to fresh air immediately. Get medical aid immediately.

**In Case of Skin Contact:**
Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical aid immediately.

**In Case of Eye Contact:**
Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.

**In Case of Ingestion:**
Remove from exposure and move to fresh air immediately. Get medical aid immediately.

**Signs and Symptoms Of Exposure:**
Exposure can cause: Nausea, headache, and vomiting.

**Note to Physician:**
Treat symptomatically and supportively. Show this safety data sheet to the doctor in attendance.

### 5. FIRE FIGHTING MEASURES

**Flash Pt:**
No data.

**Explosive Limits:**
LEL: No data. UEL: No data.

**Autoignition Pt:**
No data.

**Suitable Extinguishing Media:**
For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**Fire Fighting Instructions:**
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool.

**Flammable Properties and Hazards:**
No data available.
6. ACCIDENTAL RELEASE MEASURES

Protective Precautions, Protective Equipment and Emergency Procedures:
Use proper personal protective equipment as indicated in Section 8.

Environmental Precautions:
Observe all federal, state, and local environmental regulations.

Steps To Be Taken In Case Material Is Released Or Spilled:
Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid breathing vapors, mist or gas. Evacuate personnel to safe areas.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling:
Use with adequate ventilation. Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Avoid ingestion and inhalation. Keep container tightly closed. Wash thoroughly after handling.

Precautions To Be Taken in Storing:
Store in a cool, dry, well-ventilated area away from incompatible substances. Store in a tightly closed container. Keep container closed when not in use.

Other Precautions:
Handle in accordance with good industrial hygiene and safety practice.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>7664-38-2</td>
<td>Phosphoric acid</td>
<td>PEL: 1 mg/m3</td>
<td>TLV: 1 mg/m3</td>
<td>No data.</td>
</tr>
<tr>
<td>9016-45-9</td>
<td>Nonylphenol ethoxylate</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

Respiratory Equipment (Specify Type):
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye Protection:
Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 149 CFR 1910.133 or European Standard EN166.

Protective Gloves:
Wear appropriate protective gloves to prevent skin exposure. Rubber or neoprene gloves.

Other Protective Clothing:
Wear appropriate protective clothing to prevent skin exposure.

Engineering Controls (Ventilation etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Work/Hygienic/Maintenance Practices:
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States: [ ] Gas     [X] Liquid     [ ] Solid

Appearance and Odor: Dark Brown.

Melting Point: No data.

Boiling Point: No data.

Autoignition Pt: No data.

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Specific Gravity (Water = 1): 1.125 - 1.135

Density: 9.41
### 10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Stability:</th>
<th>Unstable [ ] Stable [ X ]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conditions To Avoid -</td>
<td></td>
</tr>
<tr>
<td>Incompatibility -</td>
<td>Strong oxidizing agents, Strong reducing agents, Strong bases, chlorine.</td>
</tr>
<tr>
<td>Materials To Avoid:</td>
<td></td>
</tr>
<tr>
<td>Hazardous Decomposition or Byproducts:</td>
<td>Carbon dioxide, Carbon monoxide, nitrogen oxides (NOx), irritating and toxic fumes and gases, Phosphine, oxides of phosphorus, hydrogen gas.</td>
</tr>
<tr>
<td>Possibility of Hazardous Reactions:</td>
<td>Will occur [ ] Will not occur [ X ]</td>
</tr>
<tr>
<td>Conditions To Avoid -</td>
<td>No data available.</td>
</tr>
<tr>
<td>Hazardous Reactions:</td>
<td></td>
</tr>
</tbody>
</table>

### 11. TOXICOLOGICAL INFORMATION

| Toxicological Information: | Epidemiology: No data available. |
|                           | Teratogenicity: No data available. |
|                           | Mutagenicity: No data available. |
|                           | Reproductive Effects: No data available. |
|                           | Neurotoxicity: No data available. |
| CAS# 7664-38-2: Phosphoric acid: | Acute toxicity, LD50, Oral, Rat, 1530. MG/KG. |
| Behavioral: | Muscle contraction or spasticity. |
| Standard Draize Test, Skin, Species: Rabbit, 595.0 MG, 24 H. Result: Behavioral: Coma. |
| Vascular: | BP lowering not characterized in autonomic section. Lungs, Thorax, or Respiration: Chronic pulmonary edema. |
| Standard Draize Test, Eyes, Species: Rabbit, 119.0 MG. Result: Lungs, Thorax, or Respiration: Other changes. Musculoskeletal: Other changes. |
| Acute toxicity, LD50, Oral, Rat, 3310. MG/KG. Result: Lungs, Thorax, or Respiration: Dyspnea. Gastrointestinal: Other changes. |
| Carcinogenicity/Other Information: | CAS# 7664-38-2: Not listed by ACGIH, IARC, NTP, or CA Prop 65. |
| Carcinogenicity: | NTP? No IARC Monographs? No OSHA Regulated? No |
12. ECOLOGICAL INFORMATION

General Ecological Information: Environmental: No information available.
Physical: No information available.

Results of PBT and vPvB assessment:
Other Studies: CAS# 7664-38-2:
Not reported. Rainbow Trout (Oncorhynchus mykiss), fingerling, 5.190%, 27 W
Not reported. SurfactantCAS #9016-45-9
LC50, Bluegill (Lepomis macrochirus), 2800 ug/L, 24H
LC50, Water Flea (Daphnia magna), adults, 17000 ug/l, 48 H

Persistence and Degradability:
No data available.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Observe all federal, state, and local environmental regulations.
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.
US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.
Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
Contact a licensed professional waste disposal service to dispose of this material.

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):
DOT Proper Shipping Name: mixture. Phosphoric acid, liquid.
DOT Hazard Class: 8 CORROSIVE
UN/NA Number: UN1805
Packing Group: III

15. REGULATORY INFORMATION

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists
CAS # Hazardous Components (Chemical Name) S. 302 (EHS) S. 304 RQ S. 313 (TRI)
7664-38-2 Phosphoric acid No Yes 5000 LB No
9016-45-9 Nonylphenol ethoxylate No No No

CAS # Hazardous Components (Chemical Name) Other US EPA or State Lists
7664-38-2 Phosphoric acid TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC, Title 8; MA Oil/HazMat: Yes; MI CMR, Part 5: Part 5; NJ EHS: Yes - 1805; NY Part 597: Yes; PA HSL: Yes - E
9016-45-9 Nonylphenol ethoxylate TSCA: Yes - Inventory, 8A PAIR; CA PROP.65: No; CA TAC, Title 8: No; MA Oil/HazMat: No; MI CMR, Part 5: No; NJ EHS: No; NY Part 597: No; PA HSL: No
16. OTHER INFORMATION

Revision Date: 10/11/2014

Hazard Rating System:

Additional Information About This Product: No data available.

Company Policy or Disclaimer: While Morgan-Gallacher believes the statements set forth herein are accurate as of the date hereof, Morgan-Gallacher makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data is offered solely for your consideration, investigation, and verification.