SAFETY DATA SHEET

Section 1: Chemical Product and Company Information

1.1 Product Identifier
Product Name: KaiBlooey

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against
Product Use: Water based cleaner

1.3 Details of the Supplier of the Safety Data Sheet
Manufacturer: Kaivac Cleaning Systems
401 South Third St.
Hamilton, OH 45011

1.4 Emergency Telephone Number: 800-287-1136
Telephone Number for Information: 800-287-1136

Email: 
SDS Date of Preparation/Revision: November 20, 2014

Section 2: Hazards Identification

2.1 Classification of the Substance or Mixture

EU Classification (1272/2008): Eye Damage Category 1 (H318)
Skin Corrosive Category 1C (H314)

EU Classification (1999/45/EC): C, Xi R34

US OSHA Classification (29CFR1910.1200): Eye Damage Category 1
Skin Corrosive Category 1C

Refer to Section 16 for Full Text of EU Classes and R Phrases

2.2 Label Elements:

DANGER! Contains phosphoric acid and ethoxylated alcohol
H314 Causes severe skin burns and eye damage.

Prevention:
P260 Do not breathe mists.
P280 Wear protective gloves and eye protection.
P264 Wash thoroughly after handling.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents and container in accordance with local and national regulations.

Response:
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contacts, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310 Immediately call a POISON CENTER or doctor.
P303+P361+P353 IF ON SKIN(or hair): Take off immediately all contaminated clothing. Rinse skin with water or a shower.
2.3 Other Hazards: None identified

Section 3: Composition/Information on Ingredients

3.2 Mixture

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number/ EINECS Number.</th>
<th>Amount</th>
<th>EU/GHS Classification (1272/2008)</th>
<th>EU Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodegradable Surfactant (ethoxylated alcohol)</td>
<td>Proprietary</td>
<td>5-10%</td>
<td>Xi R41, R50 Eye Damage 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)</td>
<td></td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9/201-069-1</td>
<td>1-10%</td>
<td>Xi R36 Eye Irritation 2A (H319)</td>
<td></td>
</tr>
<tr>
<td>Sulfamic Acid</td>
<td>5329-14-6/ 226-218-8</td>
<td>1-10%</td>
<td>Xi R36, R41, R51/53 Eye Irritation 2A (H319) Skin Irritation 2 (H315) Aquatic Chronic 3 (H412)</td>
<td></td>
</tr>
<tr>
<td>Dipropylene glycol monomethyl ether</td>
<td>34590-94-8/ 252-104-2</td>
<td>1-10%</td>
<td>Not Classified</td>
<td></td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2/231-633-2</td>
<td>1-5%</td>
<td>C R34 Skin Corrosion 1B (H314) Corrosive to Metals (H290)</td>
<td></td>
</tr>
</tbody>
</table>

Refer to Section 16 for Full Text of EU/GHS Classes and R Phrases/H Statements
The exact percentages are a trade secret.

Section 4: First Aid Measures

4.1 Description of First Aid Measures

First Aid

Inhalation: Remove to fresh air. If breathing has stopped give artificial respiration. If breathing is difficult have qualified personnel administer oxygen. Get immediate medical attention.

Skin contact: Immediately flush skin thoroughly with water for 15 minutes. Wash area with soap and water. Remove contaminated clothing and launder before reuse. Get immediate medical attention.

Eye contact: Immediately flush eyes with water for at least 20 minutes while lifting the upper and lower lids. Get immediate medical attention.

Ingestion: If conscious, give 1 glass of water or milk to dilute. DO NOT induce vomiting. Never give anything by mouth to a person who is unconscious or convulsing. Get immediate medical attention.

See Section 11 for more detailed information on health effects.

4.2 Most Important symptoms and effects, both acute and delayed: Causes severe eye irritation or burns with possible corneal damage and blindness. Skin contact may cause severe irritation or burns. Vapors or mists may cause irritation mucous membranes and respiratory tract with possible pulmonary edema. Ingestion may cause gastrointestinal corrosion, abdominal pain, nausea, shock or death.
4.3 Indication of any immediate medical attention and special treatment needed: Immediate medical treatment is recommended for all incidents of contact.

Section 5: Fire Fighting Measures

5.1 Extinguishing Media: Use any media that is suitable for the surrounding fire.

5.2 Special Hazards Arising from the Substance or Mixture: Thermal decomposition produces oxides of carbon and phosphorus.

5.3 Advice for Fire-Fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective clothing as needed to prevent eye and skin contact.

6.2 Environmental Precautions: Avoid contamination of water supplies and environmental releases. Report spills as required to authorities.

6.3 Methods and Material for Containment and Cleaning Up: Contain and collect spill with inert materials such as commercial absorbent, sand or earth. Place in a suitable container for disposal. If permitted, neutralize and flush to sewer.

6.4 Reference to Other Sections: Refer to Section 13 for disposal information and Section 8 for protective equipment.

Section 7: Handling and Storage

7.1 Precautions for Safe Handling: Prevent eye and skin contact. Remove and launder contaminated clothing before re-use. Wash thoroughly after handling and before eating, drinking, smoking or using toilet facilities.

7.2 Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well-ventilated area away from bases and other incompatible materials. Keep container closed.

7.3 Specific end use(s):
   - Industrial uses: None identified
   - Professional uses: None identified

Section 8: Exposure Controls / Personal Protection

8.1 Control Parameters:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>US OEL</th>
<th>EU IOEL</th>
<th>UK OEL</th>
<th>DFG MK</th>
<th>Biological Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodegradable Surfactant (ethoxylated alcohol)</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>1 mg/m3 TWA OSHA PEL</td>
<td>1 mg/m3 TWA 2 mg/m3 STEL</td>
<td>1 mg/m3 TWA 2 mg/m3 STEL</td>
<td>2 mg/m3 TWA 4 mg/m3 STEL (inhalable)</td>
<td>None Established</td>
</tr>
</tbody>
</table>
### 8.2 Exposure Controls:

**Appropriate Engineering Controls:** General ventilation is generally adequate for normal use. Use local exhaust ventilation if needed to maintain concentration of hazardous constituents below recommended limits.

**Personal Protective Measures**

**Respiratory Protection:** Not necessary if workplace concentrations of hazardous constituents are below recommended limits. If the exposure limit is exceeded, an approved respirator should be worn. Respirator selection and use should be based on contaminant type, form and concentration. Follow applicable local or national regulations, in the US: OSHA 1910.134, ANSI Z88.2 and good Industrial Hygiene practice.

**Eye Protection:** Use chemical safety goggles.

**Skin Protection:** Impervious gloves such as neoprene or nitrile recommended where contact is likely. Wear protective clothing as required to avoid prolonged or repeated skin contact when handling.

**Other protection:** None required.

### Section 9: Physical and Chemical Properties

#### 9.1 Information on basic Physical and Chemical Properties:

**Appearance and Odor:** Clear blue liquid with a wintergreen odor.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Concentrate &lt;1, Diluted 1-1.4</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.05</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability (solid/gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>None</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>210°F</td>
</tr>
<tr>
<td>Partition Coefficient</td>
<td>Not determined</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined</td>
</tr>
<tr>
<td>Oxidizing Properties</td>
<td>None</td>
</tr>
</tbody>
</table>

#### 9.2 Other Information: None

### Section 10: Stability and Reactivity

#### 10.1 Reactivity: Not reactive under normal conditions of use and storage.

#### 10.2 Chemical Stability: Stable.

#### 10.3 Possibility of Hazardous Reactions: Reaction with strong bases will generate heat.
10.4 Conditions to Avoid: None known.

10.5 Incompatible Materials: Avoid strong bases.

10.6 Hazardous Decomposition Products: Thermal decomposition produces oxides of carbon and phosphorus.

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Section 11: Toxicological Information

11.1 Information on Toxicological Effects:

Potential Health Hazards

Inhalation: Mist and vapors may cause irritation to the eyes, mucous membranes and upper respiratory tract. High concentrations may cause severe irritation and pulmonary edema.

Skin Contact: May cause severe irritation and burns with reddening and pain. Prolonged or repeated skin contact with diluted solutions or mists may cause dermatitis.

Eye Contact: Causes severe irritation or burns with redness, pain and tearing. Permanent eye damage may occur.

Ingestion: May cause gastrointestinal corrosion, abdominal pain and nausea, circulatory shock and death.

Acute toxicity values: Product ATE: Oral: 30600 mg/kg, Dermal: 54800 mg/kg, Inhalation: 17 mg/m3
Phosphoric Acid: LD50 oral rat: 1530 mg/kg, LD50 dermal rabbit: 2740 mg/kg, LC50 inhalation rat: 0.85 mg/m3/1 hour.

Skin corrosion/irritation: Studies performed on phosphoric acid were found to be corrosive.

Eye damage/irritation: Product is expected to be damaging to eyes based on mixture rules.

Respiratory Irritation: Prolonged inhalation may cause severe respiratory irritation.

Respiratory Sensitization: Not known to be a sensitizer.

Skin Sensitization: Not known to be a sensitizer.

Germ Cell Mutagenicity: This product is not expected to present a risk of genetic damage

Carcinogenicity: None of the components are listed as a potential carcinogen by IARC, NTP, OSHA, or CLP.

Developmental/Reproductive Toxicity: None of the ingredients are reproductive toxins.

Specific Target Organ Toxicity (Single Exposure): No adverse effects are expected based on components.

Specific Target Organ Toxicity (Repeated Exposure): No adverse effects are expected.

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Section 12: Ecological Information

12.1 Toxicity: Biodegradable Surfactant: Pleuronectes platessa LC50: 0.59mg/L, Lepomis macrochirus NOEC: 0.16 mg/L.
Sulfamic Acid: Pimephales promelas LC50: 70.3 mg/L.

12.2 Persistence and degradability: Surfactant and dipropylene glycol monomethyl ether are readily biodegradable.

12.3 Bioaccumulative Potential: Surfactant is not bioaccumulative.

12.4 Mobility in Soil: No data available.
12.5 Results of PBT and vPvB assessment: None required.

12.6 Other Adverse Effects: No data available.

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**Section 13: Disposal Considerations**

13.1 Waste Treatment Methods:
Dispose in accordance with all local, state and national regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

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**Section 14: Transport Information**

<table>
<thead>
<tr>
<th>14.1 UN Number</th>
<th>14.2 UN Proper Shipping Name</th>
<th>14.3 Hazard Class(s)</th>
<th>14.4 Packing Group</th>
<th>14.5 Environmental Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOT</td>
<td>Phosphoric Acid Solution</td>
<td>8</td>
<td>III</td>
<td>No</td>
</tr>
<tr>
<td>Canadian TDG</td>
<td>Phosphoric Acid Solution</td>
<td>8</td>
<td>III</td>
<td>No</td>
</tr>
<tr>
<td>EU ADR/RID</td>
<td>Phosphoric Acid Solution</td>
<td>8</td>
<td>III</td>
<td>No</td>
</tr>
<tr>
<td>IMDG</td>
<td>Phosphoric Acid Solution</td>
<td>8</td>
<td>III</td>
<td>No</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>Phosphoric Acid Solution</td>
<td>8</td>
<td>III</td>
<td>No</td>
</tr>
</tbody>
</table>

Note: These products can be shipped under limited quantity provisions – refer to specific regulations for requirements.

14.6 Special Precautions for User: None identified

14.7 Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Not applicable.

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**Section 15: Regulatory Information**

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

**UNITED STATES REGULATIONS:**

U.S. Sara Reporting Requirements: The components of this product are not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.

U.S. SARA Threshold Planning Quantity: There are no specific Threshold Planning Quantities for the components of this product. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA Reportable Quantity (RQ): This product has a Reportable Quantity (RQ) of 100,000 lbs. (based on the RQ for Phosphoric acid of 5000 lbs present at <5%). Releases above the RQ must be reported to the National Response Center. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

U.S. TSCA Inventory Status: The components of this product are listed on the TSCA Inventory or are exempted from listing.

Other U.S. Federal Regulations: None

California Safe Drinking Water And Toxic Enforcement Act (Proposition 65): Ingredients within this product are not on the Proposition 65 Lists.
Section 16: Other Information

<table>
<thead>
<tr>
<th>NFPA RATING (NFPA 704)</th>
<th>FIRE: 0</th>
<th>HEALTH: 3</th>
<th>INSTABILITY: 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMIS RATING</td>
<td>FIRE: 0</td>
<td>HEALTH: 3</td>
<td>PHYSICAL HAZARD: 0</td>
</tr>
</tbody>
</table>

**NFPA RATING (NFPA 704)**

- **FIRE:** 0
- **HEALTH:** 3
- **INSTABILITY:** 0

**HMIS RATING**

- **FIRE:** 0
- **HEALTH:** 3
- **PHYSICAL HAZARD:** 0

**EU and GHS Classes and Risk Phrases and Hazard Statements for Reference (See Sections 2 and 3):**

- H318 Causes serious eye damage.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H314 Causes severe skin burns and eye damage.
- H290 May be corrosive to metals.
- H400 Very toxic to aquatic life
- H412 Harmful to aquatic life with long lasting effects

- **C** Corrosive
- **Xi** Irritant
- **R34** Causes burns
- **R36** Irritating to eyes
- **R38** Irritating to skin
- **R41** Risk of serious eye damage
- **R50** Very toxic to aquatic organisms
- **R51/53** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Revision Date:** 11/20/14

**Supersedes Date:** 03/14/14

**Revision Summary:** Convert to REACH/GHS Format with GHS/CLP classification.

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of the need that information is current, applicable and suited to the circumstances of use. Kaivac assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Kaivac assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed.