SAFETY DATA SHEET

Section 1: Chemical Product and Company Information

1.1 Product Identifier
Product Name: KaiBlooey (Concentrate and 64:1 water dilution)

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against
Product Use: Water based cleaner. Product is intended for use in a 64:1 water dilution.

1.3 Details of the Supplier of the Safety Data Sheet
Manufacturer: Kaivac Inc.
2680 Van hook Ave.
Hamilton, OH 45015

1.4 Emergency Telephone Number: In the event of a medical emergency ONLY, please call:
INFOTRAC at 1-800-535-5053 24/7/365

Telephone Number for Information: 800-287-1136

Email: 
SDS Date of Preparation/Revision: March 30, 2018

Section 2: Hazards Identification

2.1 Classification of the Substance or Mixture

CONCENTRATE:

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

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

64:1 WATER DILUTION:

EU Classification (1272/2008): Not Classified as Hazardous


2.2 Label Elements:

CONCENTRATE:

DANGER! Contains phosphoric acid and alcohols, C12-15, ethoxylated

| H314 Causes severe skin burns and eye damage. | 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. |
Storage:
P405 Store locked up.

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

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.
P363 Wash contaminated clothing before reuse.
P310 Immediately call a POISON CENTER or doctor.
P310 Immediately call a POISON CENTER or doctor.

64:1 WATER DILUTION: No labeling required.

2.3 Other Hazards: None identified

Section 3: Composition/Information on Ingredients

3.2 Mixture

CONCENTRATE:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number/ EINECS Number.</th>
<th>Amount</th>
<th>EU/GHS Classification (1272/2008) EU Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol, C12-15, ethoxylated</td>
<td>68131-39-5 /500-195-7</td>
<td>5-10%</td>
<td>Eye Damage Category 1 (H318) Aquatic Acute Toxicity Category 1 (H400) Aquatic Chronic Toxicity Category 3 (H412)</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9/201-069-1</td>
<td>1-10%</td>
<td>Eye Irritation Category 2A (H319)</td>
</tr>
<tr>
<td>Sulfamic Acid</td>
<td>5329-14-6/226-218-8</td>
<td>1-10%</td>
<td>Eye Irritation Category 2A (H319) Skin Irritation Category 2 (H315) Aquatic Chronic Toxicity Category 3 (H412)</td>
</tr>
<tr>
<td>Dipropylene glycol monomethyl ether</td>
<td>34590-94-8/252-104-2</td>
<td>1-10%</td>
<td>Not Hazardous</td>
</tr>
<tr>
<td>Phosphoric Acid</td>
<td>7664-38-2/231-633-2</td>
<td>1-5%</td>
<td>Skin Corrosion Category 1B (H314) Corrosive to Metals (H290)</td>
</tr>
<tr>
<td>Methyl Salicylate (fragrance)</td>
<td>119-36-6 / 204-317-7</td>
<td>&lt;1%</td>
<td>Acute Oral Toxicity Category 4 (H302)</td>
</tr>
</tbody>
</table>

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

64:1 WATER DILUTION:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number/ EINECS Number.</th>
<th>Amount</th>
<th>EU/GHS Classification (1272/2008) EU Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hazardous Ingredients</td>
<td>N/A</td>
<td>&gt;99%</td>
<td>Not classified</td>
</tr>
<tr>
<td>Alcohol, C12-15, ethoxylated</td>
<td>68131-39-5 /500-195-7</td>
<td>&lt;1.0%</td>
<td>Eye Damage Category 1 (H318) Aquatic Acute Toxicity Category 1 (H400) Aquatic Chronic Toxicity Category 3 (H412)</td>
</tr>
<tr>
<td>Citric Acid</td>
<td>77-92-9/201-069-1</td>
<td>&lt;0.1%</td>
<td>Eye Irritation Category 2A (H319)</td>
</tr>
<tr>
<td>Sulfamic Acid</td>
<td>5329-14-6/226-218-8</td>
<td>&lt;0.1%</td>
<td>Eye Irritation Category 2A (H319) Skin Irritation Category 2 (H315) Aquatic Chronic Toxicity Category 3 (H412)</td>
</tr>
</tbody>
</table>
Section 4: First Aid Measures

4.1 Description of First Aid Measures

First Aid

Inhalation:
CONCENTRATE- Remove to fresh air. If breathing has stopped give artificial respiration. If breathing is difficult have qualified personnel administer oxygen. Get immediate medical attention.
64:1 WATER DILUTION- None expected with normal use.

Skin contact:
CONCENTRATE- 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.
64:1 WATER DILUTION- Wash area with soap and water. Seek medical attention if irritation develops or persists.

Eye contact:
CONCENTRATE- Immediately flush eyes with water for at least 20 minutes while lifting the upper and lower lids. Get immediate medical attention.
64:1 WATER DILUTION- Flush eyes thoroughly with water. Seek medical attention if irritation develops or persists.

Ingestion:
CONCENTRATE- 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.
64:1 WATER DILUTION- None expected with normal use.

See Section 11 for more detailed information on health effects.

4.2 Most Important symptoms and effects, both acute and delayed:
CONCENTRATE- 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.
64:1 WATER DILUTION- May cause mild eye and skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed:
CONCENTRATE: Immediate medical treatment is recommended for all incidents of contact.
64:1 WATER DILUTION- None expected with normal use.

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:
CONCENTRATE- 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.
64:1 WATER DILUTION- Avoid eye and skin contact. 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): Use in accordance with product labeling and packaging directions. Product is intended for use in a 64:1 water dilution.
   Industrial uses: Water based cleaner.
   Professional uses: Water based cleaner.

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>Alcohols, C12-15, ethoxylated</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 aerosol)</td>
<td>None Established</td>
</tr>
<tr>
<td>Sulfamic 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>Dipropylene glycol monomethyl ether</td>
<td>100 ppm skin TWA OSHA PEL</td>
<td>50 ppm TWA</td>
<td>50 ppm TWA</td>
<td>50 ppm TWA 50 ppm STEL</td>
<td>None Established</td>
</tr>
<tr>
<td>Methyl Salicylate</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</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.

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**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>Solubility in Water:</th>
<th>Soluble</th>
<th>Boiling Point:</th>
<th>210-212°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor Threshold:</td>
<td>Not determined</td>
<td>Partition Coefficient:</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH:</td>
<td>&lt;2.0 Concentrate, 2.4 Dilution</td>
<td>Melting Point:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>1.05 Concentrate, ~ 1.0 Dilution</td>
<td>Vapor Density:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not determined</td>
<td>Vapor Pressure:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability(solid/gas):</td>
<td>Not applicable</td>
<td>Flash Point:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive Limits:</td>
<td>Not determined</td>
<td>Autoignition Temperature:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition Temperature:</td>
<td>Not determined</td>
<td>Viscosity:</td>
<td>Not determined</td>
</tr>
<tr>
<td>Explosive Properties:</td>
<td>None</td>
<td>Oxidizing Properties:</td>
<td>None</td>
</tr>
</tbody>
</table>

9.2 Other Information: None

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**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 (Concentrate): 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: Concentrate contains phosphoric acid which is corrosive to skin. The product used as recommended in a 64:1 water dilution is not corrosive to skin but may cause mild irritation.

Eye damage/irritation: Product is expected to be damaging to eyes based on mixture rules. The product used as recommended in a 64:1 water dilution is not expected to cause eye damage but may cause mild irritation.

Respiratory Irritation: Prolonged inhalation of product in concentrated form may cause severe respiratory irritation. However no irritation is expected in a 64:1 water dilution.

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.

**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>UN3264</td>
<td>Corrosive, liquid, acidic, inorganic, n.o.s. (phosphoric acid, sulfamic acid)</td>
<td>8</td>
<td>III</td>
</tr>
<tr>
<td>Canadian TDG</td>
<td>UN3264</td>
<td>Corrosive, liquid, acidic, inorganic, n.o.s. (phosphoric acid, sulfamic acid)</td>
<td>8</td>
<td>III</td>
</tr>
<tr>
<td>EU ADR/RID</td>
<td>UN3264</td>
<td>Corrosive, liquid, acidic, inorganic, n.o.s. (phosphoric acid, sulfamic acid)</td>
<td>8</td>
<td>III</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN3264</td>
<td>Corrosive, liquid, acidic, inorganic, n.o.s. (phosphoric acid, sulfamic acid)</td>
<td>8</td>
<td>III</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>UN3264</td>
<td>Corrosive, liquid, acidic, inorganic, n.o.s. (phosphoric acid, sulfamic acid)</td>
<td>8</td>
<td>III</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.

**Section 15: Regulatory Information**

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

**Chemical Safety Assessment:** None required

**Other EU Regulations:** This product is classified and labeled in accordance with EU CLP following mixture rules. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 (REACH)

**UNITED STATES REGULATIONS:**

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

**Section 16: Other Information**

**CLP Hazard Statements for Reference (See Section 3):**

H302 Harmful if swallowed.
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

**Revision Date:** 30 March 2018

**Supersedes Date:** 09 October 2017

**Revision Summary:** Classification for dilute version included. Changes to all Sections.
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 no 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.