SAFETY DATA SHEET

Section 1: Chemical Product and Company Information

1.1 Product Identifier
Product Name: KaiDri

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 Irritation Category 2A (H319)

EU Classification (1999/45/EC): Xi R36, R52/53

US OSHA Classification (29CFR1910.1200): Eye Irritation Category 2A

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

2.2 Label Elements:

DANGER! Contains ethoxylated propoxylated alcohols and ethylene glycol monobutyl ether

<table>
<thead>
<tr>
<th>Classification</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>H319 Causes serious eye irritation</td>
<td>P305+P351+P338 IF IN EYES: Rinse Cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.</td>
</tr>
<tr>
<td>H412 Harmful to aquatic life with long lasting effects</td>
<td>P337+P313 If eye irritation persists: Get medical attention.</td>
</tr>
<tr>
<td>Prevention</td>
<td>Disposal</td>
</tr>
<tr>
<td>P264 Wash thoroughly after handling</td>
<td>Dispose of contents in accordance with local, regional and national regulations.</td>
</tr>
<tr>
<td>P280 Wear gloves and eye protection.</td>
<td></td>
</tr>
<tr>
<td>P273 Avoid release into the environment</td>
<td></td>
</tr>
</tbody>
</table>

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>Alcohols, C12-C14, Ethoxylated Propoxylated</td>
<td>68439-51-0</td>
<td>&lt;15%</td>
<td>Xi R36 Eye Irritation 2A (H319)</td>
<td></td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2/203-905-0</td>
<td>&lt;5%</td>
<td>Xi, Xn R36/R38 R20/21/22 Acute Toxicity 4 (H302, H312, H332) Skin Irritation 2 (H315) Eye Irritation 2A (H319)</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

Eyes: Flush the eyes with large amounts of water for 15 minutes, while holding the eyelids open to assure that the entire surface is flushed. Get medical attention if irritation persists.

Skin: Wash with soap and water. Remove contaminated clothing and launder before reuse. If irritation develops and persists, get medical attention.

Ingestion: If large amounts are swallowed, seek medical advice.

Inhalation: None needed under normal use conditions. If irritation develops, move to fresh air. Get medical attention if irritation persists.

See Section 11 for more detailed information on health effects.

4.2 Most Important symptoms and effects, both acute and delayed: Contact causes eye irritation. May cause mild skin irritation in some individuals. Inhalation of mists may cause mild respiratory irritation.

4.3 Indication of any immediate medical attention and special treatment needed: None needed

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: This product is not flammable or combustible. Thermal decomposition produces oxides of carbon.

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 avoid eye and skin contact.
6.2 Environmental Precautions: Avoid contamination of water supplies and environmental releases. Report spills as required to authorities. Avoid release into environment.

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, dilute and flush to sewer.

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

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Section 7: Handling and Storage

7.1 Precautions for Safe Handling:
Avoid eye contact. Avoid prolonged 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

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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-C14, Ethoxylated Propoxylated</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
<td>None Established</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>50 ppm TWA OSHA PEL</td>
<td>20 ppm TWA ACGIH TLV</td>
<td>25 ppm TWA 50 ppm STEL</td>
<td>10 ppm TWA 20 ppm STEL</td>
<td>A3</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 liquid with a slight 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>5.9</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>1.001</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>Flash Point</td>
<td>None</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>471°F</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined</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:** None known.

**10.4 Conditions to Avoid:** None known.

**10.5 Incompatible Materials:** Avoid strong acids.

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

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### Section 11: Toxicological Information

**11.1 Information on Toxicological Effects:**

**Potential Health Hazards**

**Inhalation:** Mists may cause mucous membrane and upper respiratory tract irritation with coughing and sore throat.

**Skin Contact:** May cause mild irritation.

**Eye Contact:** Causes serious irritation with tearing and redness.

**Ingestion:** Swallowing may cause gastrointestinal irritation, vomiting and diarrhea.

**Acute toxicity values:** Product ATE: Oral 10309 mg/kg, Dermal 8000 mg/kg, Inhalation 556 mg/L. Alcohols, C12-C14, Ethoxylated Propoxylated: LD50 oral rat: 3234 mg/kg, LD50 dermal rabbit > 2000 mg/kg. 2-Butoxyethanol: LD50 oral rat: 650-1746 mg/kg, LD50 dermal rabbit: 320 mg/kg, LC50 inhalation rat: estimated 3.7mg/L/1hr, 486 ppm/4hrs (2.2mg/L).

**Skin corrosion/irritation:** May cause slight irritation.

**Eye damage/irritation:** Product is expected to be irritating to eyes.

**Respiratory Irritation:** Prolonged inhalation may cause 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.

Section 12: Ecological Information

12.1 Toxicity: 2-Butoxyethanol: LC50 Oncorhynchus mykiss: 1474 mg/L/4hr, NOEC Danio rerio > 100 mg/L/21days

Product is harmful to aquatic life with long-lasting effects.

12.2 Persistence and degradability: 2-Butoxyethanol is readily biodegradable.

12.3 Bioaccumulative Potential: No data available.

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.

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>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>Canadian TDG</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>EU ADR/RID</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>IMDG</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>No</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>None</td>
<td>Not Regulated</td>
<td>None</td>
<td>No</td>
</tr>
</tbody>
</table>

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

UNITED STATES REGULATIONS:

U.S. Sara Reporting Requirements: The following components of this product are subject to the reporting requirements of Sections 302, 304, and 313 Of Title III Of The Superfund Amendments And Reauthorization Act:

<table>
<thead>
<tr>
<th>Chemical Ingredient</th>
<th>Percent Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycol Ethers</td>
<td>&lt;5</td>
</tr>
</tbody>
</table>

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 is not subject to reporting requirements under CERCLA. 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

NFPA RATING (NFPA 704) FIRE: 0 HEALTH: 2 INSTABILITY: 0

HMIS RATING FIRE: 0 HEALTH: 1 PHYSICAL HAZARD: 0

EU and GHS Classes and Risk Phrases and Hazard Statements for Reference (See Sections 2 and 3):
H319 Causes serious eye irritation
H412 Harmful to aquatic life with long lasting effects
H302 Harmful if swallowed
H312 Harmful in contact with skin
H332 Harmful if inhaled
H315 Causes skin irritation
Xi Irritant
Xn Harmful
R36 Irritating to eyes
R38 Irritating to skin

Revision Date: 11/25/14
Supersedes Date: 12/20/13

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 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.