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

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

2.3 Other Hazards: None identified

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Section 3: Composition/Information on Ingredients

3.2 Mixture

Component	CAS Number/	Amount	EU/GHS Classification (1272/2008)
	EINECS Number.		EU Classification (67/548/EEC)
Alcohols, C12-C14,	68439-51-0	<15%	Xi R36
Ethoxylated			Eye Irritation 2A (H319)
Propoxylated			
2-Butoxyethanol	111-76-2/203-905-0	<5%	Xi, Xn R36/R38 R20/21/22
			Acute Toxicity 4 (H302, H312, H332)
			Skin Irritation 2 (H315)
			Eye Irritation 2A (H319)

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.

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

Section 8: Exposure Controls / Personal Protection

8.1 Control Parameters:

Chemical Name	US OEL	EU IOEL	UK OEL	DFG MK	Biological Limit Value
Alcohols, C12-C14,	None Established	None Established	None Established	None	None Established
Ethoxylated				Established	
Propoxylated					
2-Butoxyethanol	50 ppm TWA	20 ppm TWA	25 ppm TWA	10 ppm TWA	A3
	OSHA PEL	50 ppm STEL	50 ppm STEL	20 ppm STEL	
	20 ppm TWA				
	ACGIH TLV				

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 Measurers

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:

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Appearance and Odor: Clear liquid with a slight odor.

Solubility in Water:	Soluble	Boiling Point:	210°F
Odor Threshold:	Not determined	Partition Coefficient:	Not determined
pH:	5-9	Melting Point:	Not determined
Specific Gravity:	1.001	Vapor Density:	Not determined
Evaporation Rate:	Not determined	Vapor Pressure:	Not determined
Flammability(solid/gas):	Not applicable	Flash Point:	None
Explosive Limits:	Not determined	Autoignition	471°F
		Temperature:	
Decomposition	Not determined	Viscosity:	Not determined
Temperature:			
Explosive Properties:	None	Oxidizing Properties:	None

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: 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.

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.

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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

	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
US DOT	None	Not Regulated	None	None	No
Canadian TDG	None	Not Regulated	None	None	No
EU ADR/RID	None	Not Regulated	None	None	No
IMDG	None	Not Regulated	None	None	No
IATA/ICAO	None	Not Regulated	None	None	No

14.6 Special Precautions for User: None identified

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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:

<u>Chemical Ingredient</u>	Percent Weight
Glycol Ethers	<5

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

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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.