SAFETY DATA SHEET

Section 1: Chemical Product and Company Information

1.1 Product Identifier
Product Name: KaiPow

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: April 12, 2016

Section 2: Hazards Identification

2.1 Classification of the Substance or Mixture

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

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

2.2 Label Elements:

DANGER! Contains sodium hydroxide, sodium metasilicate, and alcohols, C12-15, ethoxylated

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. P363 Wash contaminated clothing before reuse. P310 Immediately call a POISON CENTER or doctor. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER or doctor.

2.3 Other Hazards: None identified

Section 3: Composition/Information on Ingredients

3.2 Mixture

Component	CAS Number/ EINECS Number.	Amount	EU/GHS Classification (1272/2008)
Alcohols, C12-15, ethoxylated	68131-39-5/500-195-7	1-5%	Eye Damage 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 3 (H412)
Sodium Hydroxide	1310-73-2/215-185-5	1-5%	Eye Damage 1 (H318) Skin Corrosion 1A (H314)
Sodium Metasilicate Anhydrous	6834-92-0/229-912-9	1-3%	Eye Damage 1 (H318) Skin Corrosion 1B (H314) STOT SE 3 (resp) (H335) Metal Corrosion 1 (H290)
Ethanol, 2,2'-iminobis-, N-[3-(branched decyloxy)propyl] derivs., N-oxides	68478-65-9 / 270-830-8	<3%	Eye Irritant 2A (H319) Skin Irritant 2 (H315)
Alcohols, C11-14-iso-, C13-rich, ethoxylated	78330-21-9	<1%	Eye Damage 1 (H318) Skin Irritant 2 (H315)
Chelating agent	Proprietary	<1%	Not Hazardous
Fragrance	Mixture	<0.1%	Eye Irritant 2A (H319) Skin Irritant 2 (H315)

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

Section 4: First Aid Measures

4.1 Description of First Aid Measures

First Aid

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

Skin: Immediately wash with soap and water until no trace of the chemical remains. Remove contaminated clothing and launder before reuse. Get immediate medical attention.

Ingestion: If conscious, rinse mouth with water and give 1 glass of water to dilute. Do not induce vomiting. Never give anything by mouth to a person who is unconscious or convulsing. Get immediate medical attention

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..

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: Medical treatment is required for all incidents of contact or exposure.

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: Not flammable or combustible. Hazardous decomposition products may yield sodium and carbon oxides.

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. Do not breathe spray mists. Use only with appropriate protective equipment. Immediately 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 incompatible materials.

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 MAK	Biological Limit Value
Alcohols, C12-15, ethoxylated	None Established	None Established	None Established	None Established	None Established
Sodium Hydroxide	2 mg/m3 TWA OSHA PEL 2 mg/m3 CEIL ACGIH TLV	None Established	2 mg/m3 STEL	None Established	None Established
Sodium Metasilicate Anhydrous	None Established	None Established	None Established	None Established	None Established

Ethanol, 2,2'-iminobis-, N-[3-(branched decyloxy)propyl] derivs., N-oxides	None Established	None Established	None Established	None Established	None Established
Alcohols, C11-14-iso-, C13-rich, ethoxylated	None Established	None Established	None Established	None Established	None Established
Chelating agent	None Established	None Established	None Established	None Established	None Established
Fragrance	None Established	None Established	None Established	None Established	None Established

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 and a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.
Skin Protection: Impervious gloves such as nitrile recommended where contact is likely. Wear protective clothing as required to avoid any 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 floral odor.

Solubility in Water:	Soluble	**Boiling Point:**	210°F
Odor Threshold:	Not determined	**Partition Coefficient:**	Not determined
pH:	11-12.5	**Melting Point:**	Not determined
Specific Gravity:	1.05	**Vapor Density:**	Not determined
Evaporation Rate:	Not determined	**Vapor Pressure:**	Not determined
Flammability(solid/gas):	Not determined	**Flash Point:**	Not determined
Explosive Limits:	Not determined	**Autoignition Temperature:**	Not determined
Decomposition Temperature:	Not determined	**Viscosity:**	Not determined
Explosive Properties:	Not determined	**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: None known.

10.6 Hazardous Decomposition Products: Hazardous decomposition products may yield sodium and carbon oxides.

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: Liquid or mists may cause severe irritation or burns with tearing and blurred vision. Permanent damage and blindness may occur.
Ingestion: May cause gastrointestinal corrosion, abdominal pain and nausea, circulatory shock and death.

Acute toxicity values: Product ATE: Oral > 2000 mg/kg, dermal > 2000 mg/kg.
Alcohols, C12-15, ethoxylated: LD50 oral rat >2000 mg/kg, LD50 dermal rabbit: >2000 mg/kg.
Sodium Metasilicate Anhydrous: LD50 oral rat: 994.7 mg/kg, LC50 inhalation rat > 2.06 mg/L/4hr, LD50 dermal rat > 5000 mg/kg.

Skin corrosion/irritation: Corrosive to skin

Eye damage/ irritation: Product is damaging 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 is listed as a potential carcinogen by IARC, NTP, OSHA or the EU CLP.

Developmental / Reproductive Toxicity: No specific data is available.

Specific Target Organ Toxicity (Single Exposure): No specific data is available.

Specific Target Organ Toxicity (Repeated Exposure): No specific data is available. No adverse effects are expected.

Section 12: Ecological Information

12.1 Toxicity:
Sodium Metasilicate Anhydrous: Gambusia affinis LC50: 2320 mg/L/96hr

12.2 Persistence and degradability: Surfactants are 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	UN3266	Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)	8	III	No
Canadian TDG	UN3266	Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)	8	III	No
EU ADR/RID	UN3266	Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)	8	III	No
IMDG	UN3266	Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)	8	III	No
IATA/ICAO	UN3266	Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium metasilicate)	8	III	No

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

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 20,000 lbs. (based on the RQ for Sodium Hydroxide of 1000 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

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):
H290 May be corrosive to metals
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation
STOT SE 3 Specific Target Organ Toxicity – Single Exposure Category 3
H400 Very toxic to aquatic life.
H412 Harmful to aquatic like with long lasting effects.

Revision Date: 04/12/16
Supersedes Date: 07/07/15
Revision Summary: Updated pH

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.