

SAFETY DATA SHEET

Section 1: Chemical Product and Company Information

1.1 Product Identifier

Product Name: KaiBosh

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Use: Disinfectant Cleaner

EPA Registration Number: 10324-93-71665

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: January 21, 2015

Section 2: Hazards Identification

2.1 Classification of the Substance or Mixture

US OSHA Classification (29CFR1910.1200): Eye Damage Category 1
Skin Irritation Category 2

2.2 Label Elements:



DANGER! Tetrasodium Ethylene Diamine Tetraacetate, Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides and Quaternary ammonium compounds, C12-14-alkyl[(ethylphenyl)methyl]dimethyl, chlorides.

H315 Causes skin irritation

H318 Causes serious eye damage.

Prevention:

P264 Wash thoroughly after handling.

P280 Wear gloves and eye protection.

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.

P302+P352 IF ON SKIN: Wash with plenty of water.

P332+P313 If skin irritation occurs: Get medical attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

2.3 Other Hazards: None identified

Section 3: Composition/Information on Ingredients

Component	CAS Number/ EINECS Number.	Amount	GHS Classification

Water	7732-18-5/231-791-2	75-90%	Not classified
Surfactant	68131-40-8	4.3-4.7%	Skin Irritation Category 2 (H315) Eye Damage Category 1 (H318) Acute Toxicity Category 4 (H302, H312, H332)
Sodium Carbonate	497-19-8/207-838-8	2-3%	Eye Irritation Category 2 (H319)
Tetrasodium Ethylene Diamine Tetraacetate	64-02-8/200-573-9	2-3%	Eye Damage Category 1 (H315) Acute Toxicity Category 4 (H332)
Alkyl (C ₁₄ 60%, C ₁₂ 30%, C ₁₈ 5%, C 5%) dimethyl benzyl ammonium chloride	68391-01-5/269-919-4	2.25%	Skin Corrosion Category 1B (H314) Acute Toxicity Category 4 (H302, H312)
Alkyl (C ₁₂ 68%, C ₁₄ 32%) dimethyl ethylbenzyl ammonium chloride	85409-23-0/287-090-7	2.25%	Skin Corrosion Category 1B (H314) Acute Toxicity Category 4 (H302, H312)
Ethanol	64-17-5/200-578-6	<1%	Flammable Liquid Category 2 (H225) Eye Irritation Category 2 (H319)

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: Wash off with water for 15-20 minutes. Remove contaminated clothing and launder before reuse. If irritation develops and persists, get 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: Move person to fresh air. Seek medical attention if irritation or other symptoms persist.

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. Permanent damage may occur. Inhalation of mists may cause upper respiratory irritation. Swallowing may cause gastrointestinal irritation. Prolonged skin contact may cause irritation and dryness.

4.3 Indication of any immediate medical attention and special treatment needed: If eye contact or ingestion occurs, get immediate medical attention.

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 yields oxides of carbon and toxic chloride vapors.

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, 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:

Prevent 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. Refer to product label for directions for use to assure effectiveness.

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. Do not contaminate water, food or feed by storage or disposal. Store in original container in areas inaccessible to small children. Do not store on side. Avoid creasing or impacting of side walls.

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
Water	None Established	None Established	None Established	None Established	None Established
Surfactant	None Established	None Established	None Established	None Established	None Established
Sodium Carbonate	None Established	None Established	None Established	None Established	None Established
Tetrasodium Ethylene Diamine Tetraacetate	None Established	None Established	None Established	None Established	None Established
Alkyl (C ₁₄ 60%, C ₁₂ 30%, C ₁₈ 5%, C 5%) dimethyl benzyl ammonium chloride	None Established	None Established	None Established	None Established	None Established

Alkyl (C ₁₂ 68%, C ₁₄ 32%) dimethyl ethylbenzyl ammonium chloride	None Established	None Established	None Established	None Established	None Established
Ethanol	1000 ppm STEL ACGIH TLV, 1000 ppm TWA OSHA PEL	None Established	1000 ppm TWA	500 ppm TWA, 1000 ppm STEL	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 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 yellow liquid with a citrus odor.

Solubility in Water:	Soluble	Boiling Point:	Not determined
Odor Threshold:	Not determined	Partition Coefficient:	Not determined
pH:	11.5 ± 0.3	Melting Point:	Not determined
Specific Gravity:	1.039 (8.66 lbs/gal)	Vapor Density:	Not determined
Evaporation Rate:	Not determined	Vapor Pressure:	Not determined
Flammability (solid/gas):	Not applicable	Flash Point:	> 200°F (>100°C) – Pensky Martin Closed Cup
Explosive Limits:	Not determined	Autoignition Temperature:	Not determined
Decomposition Temperature:	Not determined	Viscosity:	Not determined
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: Reactions with strong oxidizing agents and acids will generate heat.

10.4 Conditions to Avoid: None known.

10.5 Incompatible Materials: Avoid strong oxidizing agents and acids.

10.6 Hazardous Decomposition Products: Thermal decomposition yields oxides of carbon and toxic chloride vapors.

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, sore throat and difficulty in breathing.

Skin Contact: Causes irritation.

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

Ingestion: Swallowing may cause gastrointestinal irritation.

Acute toxicity values: Product ATE: Oral: 7270 mg/kg, Dermal: 17714 mg/kg, Inhalation: 23 mg/L
 Sodium Carbonate: Oral rat LD50: 2800 mg/kg, inhalation rat LC50: 2.3 mg/L/2hr, dermal rabbit LD50 > 2000 mg/kg
 Tetrasodium Ethylene Diamine Tetraacetate: Oral rat LD50: 1780 mg/kg
 Surfactant: Oral rat LD50: 412-2394 mg/kg, dermal rabbit LD50 1127-2395 mg/kg, inhalation rat LD50 : 1.06 mg/L/4hr
 Ethanol: Oral rat LD50: 10470 mg/kg, inhalation rat LC50: 116.9 mg/L

Skin corrosion/irritation: Studies done on product show that the product is not corrosive to skin. Product is irritating to skin according to mixture rules.

Eye damage/ irritation: Product is damaging to eyes.

Respiratory Irritation: Prolonged inhalation may cause respiratory irritation.

Respiratory Sensitization: Not a respiratory sensitizer.

Skin Sensitization: Product is not 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 EO CLP.

Developmental / Reproductive Toxicity: No specific data is available. Components are not reproductive toxins.

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 Carbonate: Lepomis macrochirus LC50: 300 mg/L/96hr
 Tetrasodium Ethylene Diamine Tetraacetate: Lepomis macrochirus LC50: 121 mg/L/96hr
 Surfactant: Pimephales promelas LC50 : 3.2-3.6mg/L/96hr, Daphnia magna EC50: 7.3 mg/L/48hr, bacteria EC50 > 1000 mg/L/16hr

Ethanol: Oral rat LD50: Pimephales promelas LC50: 14200 mg/L/96hr

12.2 Persistence and degradability: Surfactant: >60% in 28 days.

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.

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.

Do not reuse empty container. Wrap and discard in trash (or recycle).

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	Not Regulated	None	No
EU ADR/RID	None	Not Regulated	Not Regulated	None	No
IMDG	None	Not Regulated	Not Regulated	None	No
IATA/ICAO	None	Not Regulated	Not Regulated	None	No

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

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

FIFRA Labeling:

PRECAUTIONARY STATEMENTS
Hazards to Humans & Domestic Animals
DANGER. Keep Out of Reach of Children

Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield, rubber gloves, and protective clothing when handling. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

PHYSICAL OR CHEMICAL HAZARDS Do not mix with oxidizers, anionic soaps and detergents.

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 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): The following ingredients are listed on the Proposition 65 Lists:

Name	CAS	Amount
Benzyl Chloride	100-44-7	<10 ppm

Section 16: Other Information

NFPA RATING (NFPA 704) FIRE: 1 HEALTH: 3 INSTABILITY: 0

HMIS RATING FIRE: 1 HEALTH: 3 PHYSICAL HAZARD: 0

GHS Classes 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.
- H225 Highly flammable liquid vapor
- H302 Harmful if swallowed
- H312 Harmful in contact with skin
- H332 Harmful if inhaled

Revision Date: 1/21/15

Supersedes Date: 6/10/10

Revision Summary: Convert to US GHS Format with GHS 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.