

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: April 13, 2023

Section 2: Hazards Identification

2.1 Classification of the Substance or Mixture

US OSHA Classification (29CFR1910.1200):

Appearance: Clear solution with characteristic odor
Precautionary statements: Causes skin irritation, Causes serious eye damage,
Harmful if swallowed, Harmful in contact with skin

GHS classification

Health

Serious eye damage/eye irritation	Category 1
Skin irritation	Category 2
Acute toxicity (oral)	Category 4
Acute toxicity (dermal)	Category 4

2.2 Label Elements:



Signal Word: DANGER!

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

Hazard Statements: H302: Harmful if swallowed
H312: Harmful in contact with skin
H315: Causes skin irritation
H318: Causes serious eye damage

Precautionary Statements: **Prevention**

P262: Do not get in eyes, on skin, or on clothing
P264: Wash affected areas thoroughly after handling

P270: Do not eat, drink or smoke when using this product
 P280: Wear protective gloves and eye, face and foot protection

Response

P301+312+330+331: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell. Do NOT induce vomiting.
 P302+P352: IF ON SKIN: wash with plenty of soap and water.
 P332+P313: IF Skin irritation occurs, get medical advice/attention.
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P312: Call a POISON CENTER or doctor/physician if you feel unwell.
 P363: Wash contaminated clothing before reuse

Storage

P233: Keep container tightly closed
 P234: Keep only in original container
 P501: Dispose of contents and container to an approved waste disposal plant

2.3 Other Hazards: None identified

Section 3: Composition/Information on Ingredients
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Chemical name	CAS number(s)	GHS Classification	Concentration, %
Alkyl (C ₁₂₋₁₆) dimethylbenzyl ammonium chloride	68391-01-5	Serious eye damage/eye irritation: Category 1, Skin corrosion/irritation: Category 1B, Acute toxicity (oral): Category 3, Acute toxicity (dermal): Category 3; H301, H314, H318	>=4.5-<=4.7
Alkyl (C ₁₂₋₁₄) dimethylethylbenzyl ammonium chloride	85409-23-0		
Tetrasodium EDTA	64-02-8	Serious eye damage/eye irritation: Category 2B, Acute toxicity (oral): Category 4; H302, H319	>=0.9-<=1.0
Sodium carbonate	497-19-8	Serious eye damage/eye irritation: Category 2: H319	>=2.8-<=3.1
Nonionic surfactant	34398-01-1	Serious eye damage/eye irritation: Category 1, Acute toxicity (oral): Category 4; H302, H318	>=4.3-<=4.7
Octyldimethyl amine oxide	2605-78-9	Serious eye damage/eye irritation: Category 2A, Skin corrosion/irritation: Category 2; H315, H319	>=1.3-<=1.4
Lauryldimethyl amine oxide	1643-20-5		
Other components		Not classified	Balance

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**

General advice: Show this material safety data sheet to medical personnel. Do not leave affected person unattended. Isolate exposed apparel for laundry before re-use.

Eye contact: Rinse eyes with water. Remove any contact lenses, and continue flushing eyes with running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water. Seek medical attention if irritation develops or persists.

Skin contact:	Take off contaminated clothing and shoes immediately. Wash affected areas with plenty of water. Seek medical attention if irritation develops or persists.
Ingestion:	Do NOT induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. Rinse mouth with water. Seek medical attention.
If inhaled:	Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

See Section 11 for more detailed information on health effects.

4.2 Most Important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labeling (section 2.2) and/or in section 11. Corrosive effects. Symptoms may include stinging, tearing, redness, swelling and blurred vision. Permanent eye damage including blindness could result. Prolonged or repeated skin contact may aggravate existing skin conditions. Inhalation of mists may aggravate existing chronic respiratory conditions such as asthma, emphysema or bronchitis.

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. Avoid contact of spilled material and runoff with soil and surface waterways

6.3 Methods and Material for Containment and Cleaning Up:

Recovery: Stop leak if safe to do so. Absorb spills with vermiculite, fuller's earth, or sand. Shovel up and place in a non-metal waste container for disposal. Dike large spills with soil or sandbags to contain it and prevent its spread. Keep in suitable, properly labeled, closed containers for disposal.

Decontamination/cleaning: Wash non-recoverable remainder with large amounts of water. Clean contaminated surfaces thoroughly. Recover the cleaning water for subsequent disposal.

Disposal: Dispose of in accordance with local regulations

Additional advice: Spill area may be slippery

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:

Engineering measures: Good general ventilation should be sufficient to control airborne levels. Respiratory protection is not required if good ventilation is maintained.

Personal protective equipment

Respiratory protection: In operations where mists are generated, wear a NIOSH/MSHA approved respirator that has been selected by a technically qualified person for the specific work conditions.

Hand protection: Wear long chemical resistant gloves. Observe instructions regarding permeability and breakthrough time provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion and contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection: Wear chemical splash goggles.

Skin and body protection: Wear footwear protecting against chemicals, and impervious clothing. Choose body protection according to the amount and concentration of the substances in the workplace.

Hygiene measures: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material:

- 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored.
- 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
- 3) Wash exposed skin promptly to remove accidental splashes or contact with material.

Protective measures: Ensure that eyewash stations and safety showers are close to the workstation location, and that emergency equipment is immediately accessible with instructions for use.
The protective equipment must be selected in accordance with current local standards and in following proper use instructions from the supplier of the protective equipment.
Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards, and/or risks that may occur during use.

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:	9-12	Melting Point:	Not determined
Specific Gravity:	1.04 (8.7 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

Product Summary:

Causes moderate skin irritation and serious eye damage. Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly digestive tract. Vapors and spray mist may irritate throat and respiratory system and cause coughing. No data available for the teratogenicity, mutagenicity, or reproductive toxicity of this product. No data available to designate the product as causing specific target organ toxicity through repeated exposure. No data available to designate product as an aspiration hazard.

Information on likely routes of exposure:

Eye contact: Corrosive. Causes serious eye damage. Symptoms may include pain, burning sensation, redness,

	watering, blurred vision or loss of vision.
Skin contact:	Moderate skin irritant. Symptoms may include blisters, redness and pain (which may be delayed).
Ingestion:	Harmful if swallowed. Causes burns/serious damage to mouth, throat and stomach. Symptoms may include vomiting, nausea, and/or feeling of general unwellness.
Inhalation:	May cause irritation and corrosive effects to nose, throat and respiratory tract. Symptoms may include coughing and difficulty breathing.
Sensitization:	No known effects

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

Acute oral:	LD ₅₀ >1890 mg/kg
Acute dermal:	LD ₅₀ >2000 mg/kg
Acute inhalation:	No information available
Acute toxicity (other):	No information available

Skin corrosion/irritation

Skin irritation: Causes moderate skin irritation.

Serious eye damage/eye irritation

Eye irritation: Corrosive. Causes serious eye damage.

Respiratory or skin sensitization

Sensitization: Not classified as sensitizing by skin contact

Mutagenicity

Genotoxicity in vitro:	No information available
Genotoxicity in vivo:	No information available

Carcinogenicity

Carcinogenicity: This product does not contain any ingredient designated as probable or suspected human carcinogens by IARC, ACGIH

Toxicity for reproduction and development

Toxicity to reproduction/fertility:	No information available
Developmental toxicity/teratogenicity:	No information available

Specific Target Organ Toxicity (STOT)

STOT-single exposure:	No information available
STOT-repeated exposure:	No information available

Aspiration toxicity

Aspiration toxicity: No information available

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: 0 HEALTH: 3 INSTABILITY: 0

HMIS RATING FIRE: 0 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: 4/13/23

Supersedes Date: 2/26/21

Revision Summary: Reformulation of Maquat-64-PD as a result of DCI (data call in). CSF sub registration changed.

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.