

## SAFETY DATA SHEET

### Section 1: Chemical Product and Company Information

**Product Identifier:** Kaisan II

**Product Use:** Disinfectant/Sanitizer

**US EPA Registration Number:** 10324-154-71665

**Canada DIN:** 02497565

**Manufacturer:** Kaivac Inc.  
2680 Van Hook Ave.  
Hamilton, OH 45015

**Telephone Number:** In the event of a medical emergency ONLY, please call:  
**INFOTRAC at 1-800-535-5053 24/7/365**

**SDS Date:** April 23, 2020

### Section 2: Hazards Identification

**Classification:**

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

**Label Elements:****DANGER!**

H314 Causes severe skin burns and eye damage.

**Prevention:**

P260 Do not breathe mists.  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves, protective clothing, eye protection and face protection.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents and container in accordance with local and national regulations.

**Response:**

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 soap and water.  
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.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 Immediately call a POISON CENTER or doctor.

**Other Hazards:** None identified

### Section 3: Composition/Information on Ingredients

Component	CAS Number	Amount
Didecyl Dimethyl Ammonium Chloride	7173-51-5	2.54%
Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride	68424-85-1	1.69%
Tetrasodium Ethylene Diamine Tetraacetate	64-02-8	0.5-1.5%

Ethanol	64-17-5	0.5-1.5%
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The exact percentages are a trade secret.

#### Section 4: First Aid Measures

##### Description of First Aid Measures

**Eyes:** Immediately flush eyes with water for at least 20 minutes while lifting the upper and lower lids. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.

**Skin:** Wash off with water for 15-20 minutes. Remove contaminated clothing and launder before reuse. Get immediate medical attention.

**Ingestion:** Do NOT induce vomiting. If conscious, rinse mouth with water. 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.

**Most Important symptoms and effects, both acute and delayed:** Causes severe eye and skin irritation or burns. Permanent damage may occur. Inhalation of mists may cause serious upper respiratory irritation. Swallowing causes severe gastrointestinal irritation and burns.

**Indication of any immediate medical attention and special treatment needed:** Immediate medical attention is required for all routes of exposure.

#### Section 5: Fire Fighting Measures

**Suitable (and unsuitable) extinguishing media:** Use any media that is suitable for the surrounding fire.

**Specific hazards arising from the chemical:** Thermal decomposition yields oxides of carbon and toxic chloride vapors.

**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

**Personal Precautions, Protective Equipment and Emergency Procedures:** Isolate the area and keep unnecessary personnel away. Wear appropriate protective clothing and equipment (see section 8). Prevent contact with skin, eyes and clothing. Do not breathe mist.

**Environmental Precautions:** Avoid contamination of water supplies and environmental releases. Report spills as required to authorities.

**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.

##### Reference to Other Sections:

Refer to Section 13 for disposal information and Section 8 for protective equipment.

#### Section 7: Handling and Storage

##### Precautions for Safe Handling:

Prevent eye and skin contact. Remove and launder contaminated clothing before re-use. Wear appropriate protective clothing and equipment (see section 8). Do not eat, drink, or smoke when using this product. Wash thoroughly after handling and before eating, drinking, smoking or using toilet facilities. Refer to product label for directions for use to assure effectiveness.

**Conditions for Safe Storage, Including any Incompatibilities:** Do not contaminate water, food, or feed by storage and disposal. Store only in original container. Keep this product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

### Section 8: Exposure Controls / Personal Protection

#### Control Parameters:

Chemical Name	US Occupational Exposure Values
Didecyl Dimethyl Ammonium Chloride	None Established
Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride	None Established
Tetrasodium Ethylene Diamine Tetraacetate	None Established
Ethanol	1000 ppm STEL ACGIH TLV, 1000 ppm TWA OSHA PEL

#### 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 the exposure limits or excessive concentrations.

#### Personal Protective Measures

**Respiratory Protection:** Not necessary if workplace concentrations of hazardous constituents are below recommended limits. If the exposure limit is exceeded, or concentrations are excessive, 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:** Wear impervious gloves. Wear protective clothing as required to prevent skin contact when handling.

**Other protection:** An eye wash and safety shower should be available in the work area.

### Section 9: Physical and Chemical Properties

#### Information on basic Physical and Chemical Properties:

<b>Appearance:</b>	Clear, colorless to straw colored liquid.
<b>Odor:</b>	Citrus
<b>Odor Threshold:</b>	Not determined
<b>pH:</b>	7-10
<b>Melting/Freezing Point:</b>	Not determined
<b>Boiling Point:</b>	Not determined
<b>Flash Point:</b>	>105°C (>221°F) CC
<b>Evaporation Rate: (n-butylacetate =1)</b>	Not determined
<b>% Volatile by Volume:</b>	>90%
<b>Lower Flammability Limit: Upper Flammability Limit:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable
<b>Vapor Density(Air=1):</b>	Not applicable
<b>Solubility:</b>	Soluble in water
<b>Autoignition Temperature:</b>	Not determined
<b>Decomposition Temperature:</b>	225-250°C (437-482°F)

<b>Viscosity:</b>	1.4489 mm <sup>2</sup> /s (cSt) @ 22°C
<b>Explosive Properties:</b>	Not applicable
<b>Oxidizing Properties:</b>	Not applicable
<b>Specific Gravity (Water= 1)</b>	1.00

**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 oxidizing agents and acids.

**10.6 Hazardous Decomposition Products:** Thermal decomposition yields carbon monoxide, carbon dioxide and toxic hydrogen chloride vapors.

### Section 11: Toxicological Information

#### 11.1 Information on Toxicological Effects:

##### Potential Health Hazards

**Inhalation:** Mists cause mucous membrane and upper respiratory tract irritation with coughing, sore throat and difficulty in breathing.

**Skin Contact:** Causes severe irritation or burns.

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

**Ingestion:** Swallowing causes severe gastrointestinal irritation and possible burns.

**Acute toxicity values:** Product ATE: Oral: >5,000 mg/kg, Dermal: >2,000 mg/kg, Inhalation: >5 mg/L  
 Didecyl Dimethyl Ammonium Chloride: Oral rat LD50: 329 mg/kg, dermal rat LD50 > 1,000 mg/kg  
 Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride: Oral rat LD50: 344 mg/kg,  
 Inhalation rat LC50: 0.22 mg/L/4hr, dermal rabbit LD50 > 3,412 mg/kg  
 Tetrasodium Ethylene Diamine Tetraacetate: Oral rat LD50: 1,780 mg/kg  
 Ethanol: Oral rat LD50: 10,470 mg/kg, inhalation rat LC50: 117 mg/L

**Skin corrosion/irritation:** Product is corrosive to skin.

**Eye damage/ irritation:** Product is damaging to eyes.

**Respiratory Irritation:** Inhalation causes respiratory irritation.

**Respiratory Sensitization:** Not a respiratory sensitizer.

**Skin Sensitization:** Product is not a skin 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, or OSHA.

**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.

**Aspiration Toxicity:** Not an aspiration hazard.

### Section 12: Ecological Information

**Toxicity:** Expected to be very toxic to the aquatic environment with long lasting effects.

Didecyl Dimethyl Ammonium Chloride: Danio rerio LC50: 0.49 mg/L/96hr, Daphnia magna EC50: 0.029 mg/L/48hr,  
Pseudokirchneriella subcapitata EC50: 0.062/mg/72

Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride:  
Lepomis macrochirus LC50: 0.515 mg/L/96hr, Daphnia magna EC50: 0.016 mg/L/48hr,  
Pseudokirchneriella subcapitata EC50: 0.01/mg/96

Tetrasodium Ethylene Diamine Tetraacetate: Lepomis macrochirus LC50: 121 mg/L/96hr,  
Daphnia magna EC50: 625 mg/L/48hr, Desmodemus subspicatus EC50: >100 mg/L/72hr

Ethanol: Oral rat LD50: Pimephales promelas LC50: 14,200 mg/L/96hr

**Persistence and degradability:**

Didecyl Dimethyl Ammonium Chloride: 69% in 28 days.

Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride: Readily biodegradable- 95.5% in 28 days.

Tetrasodium Ethylene Diamine Tetraacetate: Not readily biodegradable

Ethanol: Readily biodegradable

**Bioaccumulative Potential:**

Didecyl Dimethyl Ammonium Chloride: Low potential for bioaccumulation.

Alkyl (50% C14, 40% C12, 10% C16) Dimethyl Benzyl Ammonium Chloride: Low potential for bioaccumulation.

Tetrasodium Ethylene Diamine Tetraacetate: Low potential for bioaccumulation.

**Mobility in Soil:** No data available.

**Results of PBT and vPvB assessment:** None required.

**Other Adverse Effects:** No data available.

### Section 13: Disposal Considerations

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:** Non-Refillable Container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Fill the container ¼ full with water and recap. Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

### Section 14: Transport Information

	UN Number	UN Proper Shipping Name	Hazard Class(s)	Packing Group	Environmental Hazards
<b>US DOT</b>	UN1903	Disinfectant Liquid Corrosive, N.O.S (Quaternary Ammonium Compound)	8	II	No

<b>Canadian TDG</b>	UN1903	Disinfectant Liquid Corrosive, N.O.S (Quaternary Ammonium Compound)	8	II	Yes
<b>IMDG</b>	UN1903	Disinfectant Liquid Corrosive, N.O.S (Quaternary Ammonium Compound)	8	II	Yes

**Special Precautions for User:** None identified

### Section 15: Regulatory Information

#### Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

##### United States:

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 AND DOMESTIC ANIMALS

**DANGER.** Corrosive. Causes irreversible eye damage and skin burns. May be fatal if inhaled. Harmful if swallowed or absorbed through the skin. Do not get in eyes, on skin, or on clothing. Do not breathe spray mist. Wear goggles or face shield and chemical resistant gloves and protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

#### ENVIRONMENTAL HAZARDS

This product is toxic to fish, aquatic invertebrates, oysters and shrimp.

##### Canada:

This chemical is a pharmaceutical product registered under Health Canada and is subject to certain labeling requirements under Canadian law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pharmaceutical products. The hazard information required on the label is reproduced below. The product label includes other important information, including directions for use.

##### **Health Canada Pharmaceutical Labeling:**

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER

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 and rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse. Do not mix with oxidizers, anionic soaps and detergents. Do not use or store near heat or open flame. For surfaces and/or objects that may come into direct contact with children at the mouthing stage of development, a rinse with potable water is recommended. This product is toxic to fish, aquatic invertebrates, oysters and shrimp.

##### 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 Hazard Category (311/312):** Classified as per Section 2 of this SDS.

**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):** This product does not contain substances known to the state of California to cause cancer and/or reproductive toxicity.

**CANADA:**

**Canadian CEPA:** This product is exempted from listing on the either the DSL or the NDSL Inventory.

Section 16: Other Information			
<b>NFPA RATING (NFPA 704)</b>	FIRE: 0	HEALTH: 3	INSTABILITY: 0
<b>HMIS RATING</b>	FIRE: 0	HEALTH: 3	PHYSICAL HAZARD: 0
<b>Revision Date:</b> 04/23/2020			
<b>Supersedes Date:</b> N/A			
<b>Revision Summary:</b> New SDS			

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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 not 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.