Kaivac, Incorporated

401 S. Third Street
Hamilton, OH 45011

MATERIAL SAFETY DATA SHEET – KaiBOSH

Section 1: Product & Company Identification

Trade Name:	**KaiBOSH**
EPA Number	10324-93
Product Class:	Quaternary Ammonium Compound
Product Use:	Disinfectant/Sanitizer
Manufacturer:	Kaivac, Incorporated 401 S. Third Street Hamilton, OH 45011
Telephone Numbers:	24 hr. Emergency Assistance: Chemtrec 1-800-535-5053 Product or Company Information: 1-800-287-1136 (Mon – Fri)

Section 2: Composition/Information on Ingredients

Ingredient	CAS #	Wt. %
Alkyl dimethyl benzyl ammonium chloride (C_{12-18})	68391-01-5	2 - 3
Alkyl dimethyl ethyl benzyl ammonium chloride (C_{12-14})	68956-79-6	2 - 3
Ethanol	64-17-5	<0.5

Section 3: Hazards Identification

Emergency Overview	Clear, colorless to yellow colored liquid. May cause irritation or burns to the eyes, skin, gastrointestinal tract, and respiratory system.

Potential Health Effects:

Skin:	Causes irritation and/or corrosive burns. Brief exposures may cause irritation and defatting of the skin.
Eyes:	Causes irritation and/or burns and may result in permanent injury to eyes including blindness.
Inhalation:	Mists and vapors can irritate the throat and respiratory tract. High vapor concentrations may cause central nervous system effects. Symptoms may include headaches, dizziness, drowsiness and death.
Ingestion:	Although of moderate to low toxicity, ingestion can cause gastrointestinal irritation, nausea, vomiting and diarrhea, and death.
Chronic:	None known

Section 4: First Aid Measures

Eyes:	Immediately flush eyes with water for 15-20 minutes, while holding eyelids open. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Seek medical attention at once.
Skin or Clothing:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Inhalation:	If symptoms are experienced, move victim to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Ingestion:	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
Note to Physician:	Probable mucosal damage may contraindicate the use of gastric lavage.

Section 5: Fire Fighting Measures

Flash Point:	>200°F (>105°C) - Pensky Martin Closed Cup
Upper & Lower Flame Limits	Not determined

Extinguishing Media:	Dry chemical, foam, carbon dioxide or water fog. Solid water streams may spread burning liquid.
Fire Fighting Equipment & Instructions:	Firefighters should wear full protective clothing including self-contained breathing apparatus. Cool fire exposed containers with spray.
Hazardous Combustion Products:	Irritating and toxic gases or fumes may be released during a fire.
Unusual Fire Explosion Hazards	Combustion products are toxic.

Section 6: Accidental Release Measures

Spill and Leak Procedures

Emergency Action:	Isolate spill or leak area immediately. Keep unauthorized personnel away. Stay upwind. Keep out of low areas where vapors may accumulate.
Spill Cleanup:	Ventilate closed spaces before entering. All equipment used when handling the product must be grounded. Floor will be slippery. Do not touch or walk through spilled material. Stop leak if you can do it without risk. A vapor suppressing foam may be used to reduce vapors. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material.
Large Spills:	Dike far ahead of liquid spill for later disposal. Water spray may reduce vapor but will increase foaming. Water may not prevent ignition in closed spaces.

Section 7: Handling & Storage

Handling Procedures:	Avoid contact with skin and eyes. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water.
Storage Procedures:	Keep the container tightly closed and in a cool, well-ventilated place. Keep from freezing. Do not handle or store near an open flame, heat or other sources of ignition. Prevent electrostatic charge buildup by using common bonding and grounding techniques.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Provide adequate local exhaust ventilation (explosion proof) to maintain worker exposure below exposure limits.

Personal Protective Equipment:

Eyes/Face:	When handling concentrate, wear chemical goggles. Use a face shield if splashing is possible.
Skin:	When handling concentrate, use impervious gloves (rubber or neoprene). Wear suitable protective clothing.
Respiratory:	When handling dilute concentrations, protection is normally not needed. If exposure limits are exceeded or if irritation is experienced, a NIOSH/MSHA approved respiratory with an organic-vapor removing cartridge with a prefilter approved for pesticides should be worn. Ventilation and other forms of engineering controls are often the preferred means for controlling chemical exposures. Respiratory protection may be needed for non-routine or emergency situations.
General:	When handling concentrate, eye wash fountain and emergency showers are recommended.

The following ingredients have established exposure guidelines:

Ingredient	Exposure Guideline	Guideline Value
No ingredients listed in this section		

All TWAs are for an 8-hour period and all STELs are for 15 minutes unless specifically noted as being for another time period.

Section 9: Physical & Chemical Properties

Flash Point:	> 200°F (>100°C) – Pensky Martin Closed Cup
Specific Gravity:	1.039 (8.66 lbs/gal)
Percent Volatiles:	Not determined.
Vapor Pressure:	Not determined.
VOC Content	Not determined.
Viscosity:	Not determined.
Evaporation Rate:	Not determined.

Pour Point:	Not determined.
pH :	11.5± 0.3
Appearance and Odor:	Clear, colorless to straw colored liquid with benzaldehyde (organic) odor.

Section 10: Stability & Reactivity

Chemical Stability:	Material is stable.
Conditions to Avoid:	Keep away from heat and strong oxidizing agents.
Incompatibilities:	Strong oxidizing agents (may result in fire), reducing agents.
Hazardous Decomposition:	Carbon monoxide, carbon dioxide and toxic chloride vapors.
Hazardous Polymerization:	Will not occur.

Section 11: Toxicological Information

Carcinogenicity	No Carcinogenicity data available for this product.
Acute Oral LD50	>1890 mg/kg male and female rats.
Acute Dermal LD50	> 2000 mg/kg male and female rabbits.
Primary Skin	Corrosive
Primary Eye	Corrosive

Chemicals Ingredients Listed as Potential or Known Carcinogens

Ingredient	OSHA	NTP	IARC
No ingredients listed in this section.			

Section 12: Ecological Information

Ecotoxicity No data available for this product

Section 13: Disposal Considerations

Disposal Instructions

Although not a hazardous waste, the discarding or disposal of this material should be done at a properly permitted facility in accordance with the regulations of 40 CFR 262, 263, 264, and 268. Additionally, the discarding or disposal of this material may be further regulated by state, regional, or local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.

The transportation, storage, treatment and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

Section 14: Transport Information

DOT Hazard Class	Not regulated
DOT Proper Shipping Name	Not applicable

Section 15: Regulatory Information

TSCA Status

While all ingredients are listed on the TSCA Chemical Inventory, this product is regulated as a pesticide under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and not subject to the TSCA Inventory rules for FIFRA uses.

Other Chemical Inventories

All components of this product are listed on the following inventories: Australia, Canada (DSL), European Union, China, and Philippines. One or more ingredients not found on inventories of Japan and Korea.

CERCL/SARA

SARA Title III, Sections 311/312 – This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in the 40 CFR 370:
Classification of this product: Immediate, Fire

SARA Title 313 – This act requires submission of annual reports of releases of the following components of this material if the threshold reporting quantities, as listed in 40 CFR 372, are met or exceeded:

Chemical Name	CAS No.	Maximum Concentration	Comment
No ingredients listed in this section.			

Reportable Quantities/Threshold Planning Quantities: CERCLA requires notification of the National Response

Center (Telephone 1-800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs). SARA 302/304 requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and/or release of Reportable Quantities.

Chemical Name	Reportable Quantity (RQ)	Threshold Planning Quantity (TPQ)
No ingredients listed in this section.		

State & Provincial Right to Know & Selected Regulatory Lists

The following ingredients appear on various state right to know lists and/or California's Proposition 65 List

Chemical Name	State List
Benzyl Chloride (trace < 10 ppm)	AZ, CA, CAP65C, CT, FL, ID, MA, MN, NJ, PA, RI
Ethanol < 1%	AZ, CA, CAP65R, CT, FL, ID, MA, MN, NJ, PA, RI

AZ – Arizona Ambient Air Quality Guidelines
CT – Connecticut Hazardous Air Pollutants
CA – California Director's List of Hazardous Substances
CA65C – California Prop 65 Carcinogen
CA65R – California Prop 65 Reproductive Toxin
FL – Florida Substances List
ID – Idaho Non-carcinogen Toxic Air Pollutants
IL – Illinois Toxic Air Contaminant - Carcinogenic
MA – Massachusetts Right to Know List
MN – Minnesota Hazardous Substances List
NJ – New Jersey Right to Know List
PA – Pennsylvania Right to Know List
RI – Rhode Island Hazardous Substances List

WHMIS Classification: B3, E. This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: June, 2007
Previous Issue Date: December, 2005
Changes from Previous Issue Date: New Format, revised language, revised NFPA rating.

Hazard Ratings	HMIS (II)	NFPA
Health	3	3
Flammability	1	1
Reactivity	0	0
PPE	X	

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