SAFETY DATA SHEET

Section 1: Chemical Product and Company Information

1.1 Product Identifier
Product Name: KaiO Water Soluble Cleaner

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against
Product Use: Water Soluble Cleaner

1.3 Details of the Supplier of the Safety Data Sheet
Manufacturer: Kaivac Inc.
2608 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: February 26, 2021

Section 2: Hazards Identification

2.1 Classification of the Substance or Mixture

EU Classification (1272/2008)/US OSHA Classification (29CFR1910.1200): Eye Irritant Category 2 (H319)
Refer to section 16 for full text of H codes.

2.2 Label Elements:

Warning

H319 Causes serious eye irritation. **Prevention:** P264 Wash thoroughly after handling. P280 Wear 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. P337+P313 If eye irritation persists: Get medical attention.

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) EU Classification (67/548/EEC)
Alcohols C9-11 Ethoxylated	68439-46-3/614-482-0	<2%	Eye Irritant Category 2 (H319)
Alcohols, C10-14, ethoxylated	66455-15-0/613-933-9	<1%	Eye Irritant Category 2 (H319) STOT SE 3 (H335)
Hydrogen Peroxide	7722-84-1/231-765-0	<0.9%	Oxidizing Liquid Category 1 1 (H271) Acute Toxicity Category 4 (H302, H332)

			Skin Corrosion Category 1A (H314) Eye Damage Category 1 (H318) STOT SE 3 (H335) Aquatic Chronic Toxicity Category 3 (H412)
Cold Pressed Orange Oil/ d-Limonene	8028-48-6/232-433-8	<0.5%	Skin Irritation Category 2 (H315) Skin Sensitization Category 1B (H317) Aspiration Hazard Category 1 (H304) Aquatic Chronic Toxicity Category 2 (H411)

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: Flush eyes with plenty of water for at least 15 minutes while lifting the upper and lower lids. Get medical attention if irritation develops or persists.

Skin: Wash with soap and water. 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 unless directed to do so by a medical professional. Never give anything by mouth to a person who is unconscious or convulsing. Get 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: May cause serious eye irritation, redness and tearing. May cause slight skin irritation. Inhalation of mists may cause upper respiratory irritation. Swallowing may cause gastrointestinal irritation.

4.3 Indication of any immediate medical attention and special treatment needed: Immediate medical attention is generally not required.

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: This product is not flammable or combustible. Thermal decomposition produces oxides of carbon.

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 avoid 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:
Avoid 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.

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.

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 C9-11 Ethoxylated	None Established	None Established	None Established	None Established	None Established
Alcohols, C10-14, ethoxylated	None Established	None Established	None Established	None Established	None Established
Hydrogen Peroxide	1 ppm TWA OSHA PEL 1 ppm TWA ACGIH TLV	None Established	1 ppm TWA 2 ppm STEL	0.5 ppm TWA 1 ppm STEL (inhalation)	None Established
Cold Pressed Orange Oil/ d-Limonene	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 glasses or goggles if splashing is possible.
Skin Protection: Impervious gloves are recommended to avoid prolonged skin contact. Wear protective clothing as required to avoid 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 citrus odor.

Solubility in Water:	Soluble	**Boiling Point:**	212°F
Odor Threshold:	Not determined	**Partition Coefficient:**	Not determined
pH: Undiluted	6-8	**Melting Point:**	Not determined
pH: Diluted	Same as source water: 6-9	**Melting Point:**	Not determined
Specific Gravity:	1.00	**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: Thermal decomposition yields oxides of carbon.

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: May cause slight irritation.

Eye Contact: May cause serious eye irritation, redness and tearing. Corneal injury is unlikely.

Ingestion: Swallowing may cause gastrointestinal irritation.

Acute toxicity values: Product ATE: Oral: 3132,555 mg/kg, inhalation: 222 mg/L/4hr
Alcohols C9-11 Ethoxylated: Oral rat LD50: 3488 mg/kg, inhalation rat LC50 > 1.6 mg/L/4hr (no deaths occurred), dermal rabbit LD50 > 2000 mg/kg (no deaths occurred)
Alcohols, C10-14, ethoxylated: No data available
Hydrogen Peroxide: Oral rat LD50: 1193 mg/kg, dermal rat LD50 >2000 mg/kg, inhalation rat LD50: 2 mg/L/4 hours
Cold Pressed Orange Oil/ d-Limonene: Oral rat LD50 > 5000 mg/kg, dermal rabbit LD50 > 5000 mg/kg

Skin corrosion/irritation: Product is not classified as a skin irritant.

Eye damage/ irritation: Product is classified as an eye irritant.

Respiratory Irritation: Prolonged inhalation may cause respiratory irritation.

Respiratory Sensitization: Not a respiratory sensitizer.

Skin Sensitization: Product is not classified as 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, OSHA or the EU 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.

Aspiration Hazard: Product is not an aspiration hazard.

Section 12: Ecological Information

12.1 Toxicity:
Alcohols C9-11 Ethoxylated: Oncorhynchus mykiss LC50: 5-7 mg/L/96hrs
Alcohols, C10-14, ethoxylated: Not toxic to aquatic life
Hydrogen peroxide: Pimephales promelas LC50: 16.4 mg/L
Cold Pressed Orange Oil/ d-Limonene: Brachydanio rerio LL50: 5.65 mg/L/96hr

This product is not expected to cause harm to the environment.

12.2 Persistence and degradability: Product is expected to be readily biodegradable. Alcohols C9-11 Ethoxylated: Readily biodegradable. Alcohols, C10-14, ethoxylated: Readily biodegradable.

12.3 Bioaccumulative Potential: Not expected to bioaccumulate.

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	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

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 SDS 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): This product contains substances known to the State of California to cause cancer and/or reproductive harm.

Section 16: Other Information

NFPA RATING (NFPA 704)	FIRE: 1	HEALTH: 2	INSTABILITY: 0
HMIS RATING	FIRE: 1	HEALTH: 2	PHYSICAL HAZARD: 0

EU and GHS Classes and Risk Phrases and Hazard Statements for Reference (See Sections 2 and 3):
H271 May cause fire or explosion – strong oxidizer.
H302 Harmful if swallowed
H304 May be fatal if swallowed and enters airways
H314 Causes severe skin burns and eye damage
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H318 Causes serious eye damage.
H332 Harmful if inhaled
H335 May cause respiratory irritation

H411 Toxic to aquatic life with long lasting effects
H412 Harmful to aquatic life with long lasting effects
STOT SE 3 Specific Target Organ Toxicity Single Exposure Category 3

Effective Date: 2/26/21
Supersedes Date: 2/16/16
Revision Summary: Updated classification and all affected sections of the SDS.

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.