

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : KEYSTONE UNIT DOSE DELIMER

Other means of identification : Not applicable

Recommended use : Delimer

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 1.0 % - 6.7 %

Company : Ecolab Inc.
1 Ecolab Place
St. Paul, Minnesota USA 55102
1-800-352-5326

Emergency health information : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)

Issuing date : 09/30/2024

SECTION 2. HAZARDS IDENTIFICATION
GHS Classification
Product AS SOLD

Skin irritation : Category 2
Eye irritation : Category 2A

Product AT USE DILUTION

Eye irritation : Category 2A

GHS label elements
Product AS SOLD

Hazard pictograms :



Signal Word : Warning

Hazard Statements : Causes skin irritation.
Causes serious eye irritation.

Precautionary Statements : **Prevention:**
Wash skin thoroughly after handling.
Response:
IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

Product AT USE DILUTION

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Hazard pictograms :



Signal Word : Warning

Hazard Statements : Causes serious eye irritation.

Precautionary Statements : **Prevention:**
Wash skin thoroughly after handling.
Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

Product AS SOLD

Other hazards : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Product AT USE DILUTION

Other hazards : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

Pure substance/mixture : Mixture

| Chemical name | CAS-No. | Concentration (%) |
|------------------------|------------|-------------------|
| citric acid | 77-92-9 | 30 - 60 |
| Sodium hydrogensulfate | 7681-38-1 | 10 - 30 |
| Sodium Carbonate | 497-19-8 | 5 - 10 |
| Polyethylene Glycol | 25322-68-3 | 1 - 5 |

Product AT USE DILUTION

| Chemical name | CAS-No. | Concentration (%) |
|------------------------|-----------|-------------------|
| citric acid | 77-92-9 | 1 - 5 |
| Sodium hydrogensulfate | 7681-38-1 | 1 - 5 |

SECTION 4. FIRST AID MEASURES

Product AS SOLD

In case of eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Get medical attention if irritation develops and persists.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.

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| | |
|---|--|
| Notes to physician | : Treat symptomatically. |
| Most important symptoms and effects, both acute and delayed | : See Section 11 for more detailed information on health effects and symptoms. |

Product AT USE DILUTION

| | |
|-------------------------|---|
| In case of eye contact | : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention. |
| In case of skin contact | : Rinse with plenty of water. |
| If swallowed | : Rinse mouth. Get medical attention if symptoms occur. |
| If inhaled | : Get medical attention if symptoms occur. |

SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD

| | |
|--|---|
| Suitable extinguishing media | : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media | : None known. |
| Specific hazards during fire fighting | : Not flammable or combustible. |
| Hazardous combustion products | : Decomposition products may include the following materials: Carbon oxides Sulfur oxides |
| Special protective equipment for fire-fighters | : Use personal protective equipment. |
| Specific extinguishing methods | : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

| | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8. |
| Environmental precautions | : Do not allow contact with soil, surface or ground water. |
| Methods and materials for containment and cleaning up | : Sweep up and shovel into suitable containers for disposal. |

Product AT USE DILUTION

| | |
|---|--|
| Personal precautions, protective equipment and emergency procedures | : Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8. |
| Environmental precautions | : Do not allow contact with soil, surface or ground water. |

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Methods and materials for containment and cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Product AS SOLD

Advice on safe handling : Avoid contact with skin and eyes. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.

Storage temperature : 0 °C to 40 °C

Product AT USE DILUTION

Advice on safe handling : Avoid contact with skin and eyes. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD

Ingredients with workplace control parameters

| Components | CAS-No. | Form of exposure | Permissible concentration | Basis |
|---------------------|------------|------------------|---------------------------|-----------|
| Polyethylene Glycol | 25322-68-3 | TWA (Aerosol.) | 10 mg/m ³ | AIHA WEEL |

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.

Hand protection : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.
For prolonged or repeated contact use protective gloves.

Skin protection : No special protective equipment required.

Respiratory protection : No personal respiratory protective equipment normally required.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after

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KEYSTONE UNIT DOSE DELIMER

handling.

Product AT USE DILUTION

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.

Hand protection : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.
For prolonged or repeated contact use protective gloves.

Skin protection : No special protective equipment required.

Respiratory protection : No personal respiratory protective equipment normally required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | Product AS SOLD | Product AT USE DILUTION |
|---|---------------------|-------------------------|
| Appearance | : tablet | liquid |
| Color | : white | colorless |
| Odor | : vinegar-like | vinegar-like |
| pH | : 1.7 - 2.7, (1 %) | 2.5 |
| Flash point | : Not applicable | |
| Odor Threshold | : No data available | |
| Melting point/freezing point | : No data available | |
| Initial boiling point and boiling range | : No data available | |
| Evaporation rate | : No data available | |
| Flammability (solid, gas) | : Not applicable | |
| Upper explosion limit | : No data available | |
| Lower explosion limit | : No data available | |
| Vapor pressure | : No data available | |
| Relative vapor density | : No data available | |
| Relative density | : 1.03 - 1.09 | |
| Water solubility | : soluble | |
| Solubility in other solvents | : No data available | |
| Partition coefficient: n-octanol/water | : No data available | |
| Autoignition temperature | : No data available | |
| Thermal decomposition | : No data available | |
| Viscosity, kinematic | : No data available | |
| Explosive properties | : No data available | |
| Oxidizing properties | : No data available | |

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Molecular weight : No data available
VOC : No data available

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD

Reactivity : No dangerous reaction known under conditions of normal use.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Conditions to avoid : None known.

Incompatible materials : Acids and bases

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Carbon oxides
Sulfur oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Eye contact, Skin contact

Potential Health Effects

Product AS SOLD

Eyes : Causes serious eye irritation.

Skin : Causes skin irritation.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

Product AT USE DILUTION

Eyes : Causes serious eye irritation.

Skin : Health injuries are not known or expected under normal use.

Ingestion : Health injuries are not known or expected under normal use.

Inhalation : Health injuries are not known or expected under normal use.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact : Redness, Pain, Irritation

Skin contact : Redness, Irritation

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Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

Product AT USE DILUTION

Eye contact : Redness, Pain, Irritation

Skin contact : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

Toxicity

Product AS SOLD

Product

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg

Acute inhalation toxicity : 4 h Acute toxicity estimate : 139.33 mg/l
Test atmosphere: dust/mist

Acute dermal toxicity : No data available

Skin corrosion/irritation : No data available

Serious eye damage/eye irritation : No data available

Respiratory or skin sensitization : No data available

Carcinogenicity : No data available

Reproductive effects : No data available

Germ cell mutagenicity : No data available

Teratogenicity : No data available

STOT-single exposure : No data available

STOT-repeated exposure : No data available

Aspiration toxicity : No data available

Components

Acute dermal toxicity : Polyethylene Glycol
LD50 Rabbit: 20,000 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product AS SOLD

Environmental Effects : This product has no known ecotoxicological effects.

Product AT USE DILUTION

Environmental Effects : This product has no known ecotoxicological effects.

Product AS SOLD

Product

Toxicity to fish : No data available

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Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

Components

Toxicity to fish : citric acid
96 h LC50 Fish: > 100 mg/l

Sodium hydrogensulfate
96 h LC50 Fish: 7,960 mg/l

Sodium Carbonate
96 h LC50 Lepomis macrochirus (Bluegill sunfish): 300 mg/l

Polyethylene Glycol
96 h LC50 Fish: > 1,000 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Sodium Carbonate
48 h EC50 Ceriodaphnia (water flea): 213.5 mg/l

Persistence and degradability

Product AT USE DILUTION

Readily biodegradable.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

Product AT USE DILUTION

Disposal methods : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

Disposal considerations : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

SECTION 14. TRANSPORT INFORMATION

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Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Not dangerous goods

Sea transport (IMDG/IMO)

Not dangerous goods

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

California Cleaning Product Right to Know Act of 2017 (SB 258)

This regulation applies to this product.

| Hazardous ingredients | CAS-No. | Function | List(s) |
|----------------------------------|------------|----------------|----------------|
| citric acid | 77-92-9 | Cleaning Agent | Not Applicable |
| Sodium hydrogensulfate | 7681-38-1 | Cleaning Agent | Not Applicable |
| d-gluconic acid, .delta.-lactone | 90-80-2 | Cleaning Agent | Not Applicable |
| Sodium Carbonate | 497-19-8 | Cleaning Agent | Not Applicable |
| acetic acid, sodium salt | 127-09-3 | Processing Aid | Not Applicable |
| Polyethylene Glycol | 25322-68-3 | Processing Aid | Not Applicable |
| sodium sulfate | 7757-82-6 | Processing Aid | 20 |
| water | 7732-18-5 | Processing Aid | Not Applicable |

*refer to ecolab.com/sds for electronic links to designated lists

The ingredients of this product are reported in the following inventories:

United States TSCA Inventory :

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All substances listed as active on the TSCA inventory

Canadian Domestic Substances List (DSL) :

All components of this product are on the Canadian DSL

Australia. Australian Industrial Chemicals Introduction Scheme (AICIS) :

On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemical Substances :

On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory :

On the inventory, or in compliance with the inventory

Korea. Korean Existing Chemicals Inventory (KECI) :

On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :

On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances in China (IECSC) :

On the inventory, or in compliance with the inventory

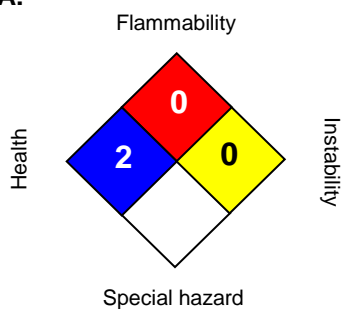
Taiwan Chemical Substance Inventory (TCSI) :

On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Product AS SOLD

NFPA:



HMIS III:

| | |
|-----------------|---|
| HEALTH | 2 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

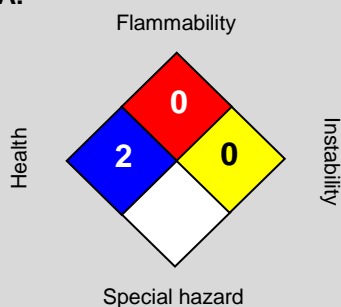
0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

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KEYSTONE UNIT DOSE DELIMER

Product AT USE DILUTION

NFPA:



HMIS III:

| | |
|-----------------|---|
| HEALTH | 2 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Issuing date : 09/30/2024
Version : 1.1
Prepared by : Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.