

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : KEYSTONE ULTIMATE DISHMACHINE DETERGENT

Other means of identification : Not applicable

Recommended use : Machine Warewashing Detergent

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.1 % - 0.25 %

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 : 12/12/2019

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

**Product AS SOLD**

Eye irritation : Category 2A

**Product AT USE DILUTION**

Not a hazardous substance or mixture.

**GHS label elements**

**Product AS SOLD**

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 AT USE DILUTION**

Precautionary Statements : **Prevention:**  
Wash hands thoroughly after handling.  
**Response:**  
Get medical advice/ attention if you feel unwell.  
**Storage:**  
Store in accordance with local regulations.

# SAFETY DATA SHEET

## KEYSTONE ULTIMATE DISHMACHINE DETERGENT

### Product AS SOLD

Other hazards : None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Product AS SOLD

Pure substance/mixture : Mixture

Chemical name	CAS-No.	Concentration (%)
Sodium Carbonate	497-19-8	60 - 100
oxirane, methyl-, polymer with oxirane	9003-11-6	1 - 5

### Product AT USE DILUTION

No hazardous ingredients

## 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 : Rinse with plenty of water.

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.

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 : Rinse with plenty of water.

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.

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### KEYSTONE ULTIMATE DISHMACHINE DETERGENT

- Specific hazards during fire fighting : Not flammable or combustible.
- Hazardous combustion products : Decomposition products may include the following materials:  
Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)
- 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 : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : No special environmental precautions required.
- 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. 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 50 °C

##### Product AT USE DILUTION

- Advice on safe handling : Wash hands after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). For personal protection see section 8.
- Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.

# SAFETY DATA SHEET

## KEYSTONE ULTIMATE DISHMACHINE DETERGENT

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Product AS SOLD

##### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

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 : No special protective equipment required.

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 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 : No special protective equipment required.

Hand protection : No special protective equipment required.

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	: Extruded solid.	liquid
Color	: opaque, off-white	colorless
Odor	: odorless	odorless
pH	: 10.3 - 11.3, (1 %)	9.5 - 11.0
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	

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### KEYSTONE ULTIMATE DISHMACHINE DETERGENT

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	: No data available
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	: The substance or mixture is not classified as oxidizing.
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	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Acids
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: Carbon oxides Nitrogen oxides (NOx)

### 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	: 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.

## SAFETY DATA SHEET

### KEYSTONE ULTIMATE DISHMACHINE DETERGENT

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

#### Product AT USE DILUTION

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

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 : No symptoms known or expected.

Ingestion : No symptoms known or expected.

Inhalation : No symptoms known or expected.

#### Product AT USE DILUTION

Eye contact : No symptoms known or expected.

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 : 3,472 mg/kg

Acute inhalation toxicity : 4 h Acute toxicity estimate : 37.5 mg/l  
Test atmosphere: dust/mist

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

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

# SAFETY DATA SHEET

## KEYSTONE ULTIMATE DISHMACHINE DETERGENT

Aspiration toxicity : No data available

### SECTION 12. ECOLOGICAL INFORMATION

#### Product AS SOLD

##### Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

##### Product

Toxicity to fish : No data available

Toxicity to daphnia and other aquatic invertebrates : No data available

Toxicity to algae : No data available

##### Components

Toxicity to fish : Sodium Carbonate  
96 h LC50 *Lepomis macrochirus* (Bluegill sunfish): 300 mg/l  
  
oxirane, methyl-, polymer with oxirane  
96 h LC50 Fish: > 100 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 AS SOLD

No data available

#### Product AT USE DILUTION

Not applicable - inorganic

##### 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

# SAFETY DATA SHEET

## KEYSTONE ULTIMATE DISHMACHINE DETERGENT

Disposal methods : Diluted product can be flushed to sanitary sewer.

Disposal considerations : Dispose of in accordance with local, state, and federal regulations.

### SECTION 14. TRANSPORT INFORMATION

#### 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** : 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.

Chemical Name	CAS-No.	Function	List(s)
Sodium Carbonate	497-19-8	Cleaning Agent	Not Applicable
oxirane, methyl-, polymer with oxirane	9003-11-6	Cleaning Agent	Not Applicable
citric acid, trisodium salt, dihydrate	6132-04-3	Cleaning Agent	Not Applicable
sodium hydrogencarbonate	144-55-8	Cleaning Agent	Not Applicable
Polycarboxylate	Withheld	Cleaning Agent	Not Applicable
Anionic polymer	Withheld	Cleaning Agent	Not Applicable
Carboxylate	Withheld	Cleaning Agent	Not Applicable
Chelating agent	Withheld	Cleaning Agent	Not Applicable
Sugar	Withheld	Processing Aid	Not Applicable



# SAFETY DATA SHEET

## KEYSTONE ULTIMATE DISHMACHINE DETERGENT

Inorganic salt	Withheld	Cleaning Agent	Not Applicable
subtilisin	9014-01-1	Cleaning Agent	8
Organic salt	Withheld	Cleaning Agent	Not Applicable
Polymer potassium salt	Withheld	Cleaning Agent	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 :**

All components are listed or exempted.

**Canadian Domestic Substances List (DSL) :**

This product contains one or several components listed in the Canadian NDSL.

**Australia Inventory of Chemical Substances (AICS) :**

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

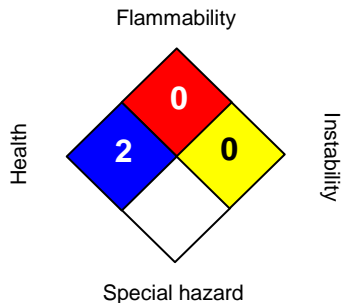
**Taiwan Chemical Substance Inventory (TCSI) :**

not determined

### SECTION 16. OTHER INFORMATION

**Product AS SOLD**

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>2</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

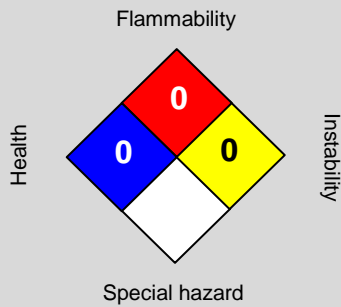
0 = not significant, 1 = Slight,  
2 = Moderate, 3 = High  
4 = Extreme, \* = Chronic

### Product AT USE DILUTION

# SAFETY DATA SHEET

## KEYSTONE ULTIMATE DISHMACHINE DETERGENT

### NFPA:



### HMIS III:

<b>HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

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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.