SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: KEYSTONE MANUAL BAR GLASS DETERGENT
Other means of identification: Not applicable
Recommended use: Manual Warewashing Detergent
Restrictions on use: Reserved for industrial and professional use.
Product dilution information: 0.0% - 0.125%

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: 03/14/2019

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Product AS SOLD
Eye irritation: Category 2B

Product AT USE DILUTION
Not a hazardous substance or mixture.

GHS label elements
Product AS SOLD
Signal Word: Warning
Hazard Statements: Causes 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.

Product AS SOLD
Other hazards: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
SAFETY DATA SHEET
KEystone Manual Bar Glass Detergent

Product AS SOLD
Pure substance/mixture : Mixture

Chemical name | CAS-No. | Concentration (%)
---|---|---
Sodium sesquicarbonate | 533-96-0 | 30 - 60
Ethylenediamine tetraacetate | 64-02-8 | 1 - 5

Product AT USE DILUTION
No hazardous ingredients

SECTION 4. FIRST AID MEASURES

Product AS SOLD
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.
Protection of first-aiders : No special precautions are necessary for first aid responders.
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.
Specific hazards during fire fighting : Not flammable or combustible.
Hazardous combustion products : Decomposition products may include the following materials:
Carbon oxides
Nitrogen oxides (NOx)
Sulfur oxides
Special protective equipment : Use personal protective equipment.
for fire-fighters

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: 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: Wash hands thoroughly after handling.

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

Storage temperature: 0 °C to 45 °C

Product AT USE DILUTION
Advice on safe handling: Wash hands after handling. For personal protection see section 8.

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: 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: 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.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

**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**

<table>
<thead>
<tr>
<th>Property</th>
<th>Product AS SOLD</th>
<th>Product AT USE DILUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>powder</td>
<td>liquid</td>
</tr>
<tr>
<td>Color</td>
<td>opaque, white</td>
<td>colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>odorless</td>
<td>odorless</td>
</tr>
<tr>
<td>pH</td>
<td>10.0 - 11.0, (1 %)</td>
<td>10.5</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable, Does not sustain combustion.</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Relative vapor density</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>1.1</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble</td>
<td></td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>
### 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**

**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**
Decomposition products may include the following materials:
Carbon oxides
Nitrogen oxides (NOx)
Sulfur oxides

## SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**
Inhalation, Eye contact, Skin contact

**Potential Health Effects**

**Product AS SOLD**

**Eyes**
Causes 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.

**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, Irritation
SAFETY DATA SHEET
KEYSTONE MANUAL BAR GLASS DETERGENT

Skin contact : No symptoms known or expected.
Ingestion : No symptoms known or expected.
Inhalation : No symptoms known or expected.

**Product AT USE DILUTION**

<table>
<thead>
<tr>
<th>Contact Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No symptoms known or expected.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No symptoms known or expected.</td>
</tr>
</tbody>
</table>

**Toxicity**

**Product AS SOLD**

**Product**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute oral toxicity</td>
<td>Acute toxicity estimate : &gt; 5,000 mg/kg</td>
</tr>
<tr>
<td>Acute inhalation toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Acute dermal toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Skin corrosion/irritiation</td>
<td>No data available</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Mild eye irritation</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>No data available</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Reproductive effects</td>
<td>No data available</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Teratogenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>STOT-single exposure</td>
<td>No data available</td>
</tr>
<tr>
<td>STOT-repeated exposure</td>
<td>No data available</td>
</tr>
<tr>
<td>Aspiration toxicity</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**SECTION 12. ECOLOGICAL INFORMATION**

**Product AS SOLD**

**Ecotoxicity**

<table>
<thead>
<tr>
<th>Environmental Effects</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>This product has no known ecotoxicological effects.</td>
</tr>
</tbody>
</table>

**Product**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>No data available</td>
</tr>
<tr>
<td>Toxicity to daphnia and other aquatic invertebrates</td>
<td>No data available</td>
</tr>
<tr>
<td>Toxicity to algae</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Components**

<table>
<thead>
<tr>
<th>Toxicity Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity to fish</td>
<td>Sodium sesquicarbonate 96 h LC50 Lepomis macrochirus (Bluegill sunfish): 7,100 mg/l</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET

KEYSTONE MANUAL BAR GLASS DETERGENT

ethylenediamine tetraacetate
96 h LC50 Fish: 121 mg/l

Components
Toxicity to daphnia and other aquatic invertebrates: Sodium sesquicarbonate
48 h EC50 Daphnia magna (Water flea): 4,100 mg/l

Persistence and degradability
Product AS SOLD
Poorly biodegradable

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: Diluted product can be flushed to sanitary sewer.
Disposal considerations: Dispose of in accordance with local, state, and federal regulations.

Product AT USE DILUTION
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
SAFETY DATA SHEET
KEystone Manual Bar Glass Detergent

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.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>Function</th>
<th>List(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium sulfate</td>
<td>7757-82-6</td>
<td>Diluent</td>
<td>20</td>
</tr>
<tr>
<td>Sodium sesquicarbonate</td>
<td>533-96-0</td>
<td>Cleaning Agent</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Organic salt</td>
<td></td>
<td>Cleaning Agent</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>ethylenediamine tetraacetate</td>
<td>64-02-8</td>
<td>Cleaning Agent</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Linear Alkylbenzene Sulfonate</td>
<td></td>
<td>Cleaning Agent</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>and its salt</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*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:
On the inventory, or in compliance with the inventory

Canadian Domestic Substances List (DSL):
All components of this product are on the Canadian DSL

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):
SAFETY DATA SHEET
KEYSTONE MANUAL BAR GLASS DETERGENT

On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Product AS SOLD
NFPA:

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS III:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABILITY</td>
<td>0</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Product AT USE DILUTION
NFPA:

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

HMIS III:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLAMMABILITY</td>
<td>0</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>0</td>
</tr>
</tbody>
</table>

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

Issuing date : 03/14/2019
Version : 1.0
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 Material 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.