



## SAFETY DATA SHEET

### HCX9 ENZYMATIC MANUAL DETERGENT

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : HCX9 ENZYMATIC MANUAL DETERGENT

Other means of identification : Not applicable

Recommended use : Instrument cleaner

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.39063 % - 0.78125 %

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 : 12/16/2020

#### SECTION 2. HAZARDS IDENTIFICATION

##### GHS Classification

##### Product AS SOLD

Not a hazardous substance or mixture.

##### Product AT USE DILUTION

Not a hazardous substance or mixture.

##### GHS label elements

##### Product AS SOLD

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 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 : 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

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| Chemical name          | CAS-No.   | Concentration (%) |
|------------------------|-----------|-------------------|
| glycerin               | 56-81-5   | 10 - 30           |
| triethanolamine        | 102-71-6  | 5 - 10            |
| Sodium Xylenesulfonate | 1300-72-7 | 1 - 5             |
| citric acid            | 77-92-9   | 1 - 5             |
| subtilisin             | 9014-01-1 | 0.1 - 1           |

#### 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  | : No specific measures identified.   |
| 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:<br>Carbon oxides<br>Nitrogen oxides (NOx)<br>Sulfur oxides |
| Special protective equipment          | : Use personal protective equipment.   |

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for fire-fighters

Specific extinguishing methods : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

#### 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 : 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). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

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

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 : 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.

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### Product AS SOLD

##### Ingredients with workplace control parameters

| Components | CAS-No. | Form of | Permissible | Basis |
|------------|---------|---------|-------------|-------|
|------------|---------|---------|-------------|-------|

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|                 |           | exposure                        | concentration                                   |           |
|-----------------|-----------|---------------------------------|---|-----------|
| glycerin        | 56-81-5   | TWA                             | 10 mg/m3  | ACGIH     |
|                 |           | TWA<br>(respirable<br>fraction) | 5 mg/m3   | OSHA Z1   |
| triethanolamine | 102-71-6  | TWA                             | 5 mg/m3   | ACGIH     |
| subtilisin      | 9014-01-1 | Ceiling                         | 0.00006 mg/m3<br>(crystalline active<br>enzyme) | ACGIH     |
|                 |           | STEL                            | 0.00006 mg/m3                                   | NIOSH REL |

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 : Wash hands before breaks and immediately after handling the product.

#### 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                              | : liquid                                       | liquid                  |
| Color                                   | : clear, blue                                  | light blue              |
| Odor                                    | : slight                                       | odorless                |
| pH                                      | : 7.0 - 8.5, (100 %)                           | 7.0 - 8.5               |
| Flash point                             | : Not applicable, Does not sustain combustion. |                         |
| Odor Threshold                          | : No data available                            |                         |
| Melting point/freezing point            | : No data available                            |                         |
| Initial boiling point and boiling range | : > 100 °C                                     |                         |

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|  |                     |
|--|---------------------|
| 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                       | : 1.0 - 1.1         |
| Water solubility                       | : No data available |
| 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 |
| 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             | : None known.  |
| Hazardous decomposition products   | : In case of fire hazardous decomposition products may be produced such as:<br>Carbon oxides<br>Nitrogen oxides (NOx)<br>Sulfur oxides |

### SECTION 11. TOXICOLOGICAL INFORMATION

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

#### Potential Health Effects

#### Product AS SOLD

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

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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 : No symptoms known or expected.

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 : No data available

Acute inhalation toxicity : No data available

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

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STOT-repeated exposure : No data available

Aspiration toxicity : No data available

#### Components

Acute oral toxicity : glycerin  
LD50 Rat: 18,300 mg/kg

triethanolamine  
LD50 Rat: 6,400 mg/kg

Sodium Xylenesulfonate  
LD50 Rat: > 7,000 mg/kg

citric acid  
LD50 Rat: 11,700 mg/kg

subtilisin  
LD50 Rat: 1,800 mg/kg

#### Components

Acute dermal toxicity : glycerin  
LD50 Rabbit: 23,000 mg/kg

### 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 : glycerin  
96 h LC50 Fish: 855 mg/l

triethanolamine  
96 h LC50: 11,800 mg/l

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

subtilisin  
96 h LC50 Oncorhynchus mykiss (rainbow trout): 8.2 mg/l

#### Components

Toxicity to daphnia and other aquatic invertebrates : triethanolamine  
48 h EC50: 609.88 mg/l

subtilisin  
48 h EC50 Daphnia magna (Water flea): 0.868 mg/l

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#### Components

Toxicity to algae : triethanolamine  
72 h EC50: > 100 mg/l

Sodium Xylenesulfonate  
96 h EC50: 230 mg/l

subtilisin  
72 h EC50 Pseudokirchneriella subcapitata (green algae): 1.44 mg/l

#### Persistence and degradability

##### Product AS SOLD

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



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#### 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** : No SARA Hazards

**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)        |
|----------------------------|-----------|----------------|----------------|
| water                      | 7732-18-5 | Diluent        | Not Applicable |
| glycerin                   | 56-81-5   | Stabilizer     | Not Applicable |
| triethanolamine            | 102-71-6  | Buffer         | Not Applicable |
| Sodium Xylenesulfonate     | 1300-72-7 | Cleaning Agent | Not Applicable |
| formic acid, sodium salt   | 141-53-7  | Stabilizer     | Not Applicable |
| citric acid                | 77-92-9   | Buffer         | Not Applicable |
| Noinionic surfactant       | Withheld  | Cleaning Agent | Not Applicable |
| subtilisin                 | 9014-01-1 | Cleaning Agent | 8              |
| Substituted aromatic amine | Withheld  | Cleaning Agent | Not Applicable |
| Isothiazolinones           | Withheld  | Biocide        | Not Applicable |

\*refer to [ecolab.com/sds](http://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 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 :

not determined

##### Japan. ENCS - Existing and New Chemical Substances Inventory :

not determined

##### Korea. Korean Existing Chemicals Inventory (KECI) :

On the inventory, or in compliance with the inventory

##### Philippines Inventory of Chemicals and Chemical Substances (PICCS) :

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not determined

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

On the inventory, or in compliance with the inventory

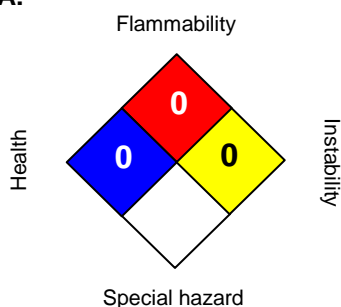
**Taiwan Chemical Substance Inventory (TCSI) :**

not determined

### SECTION 16. OTHER INFORMATION

#### Product AS SOLD

##### NFPA:



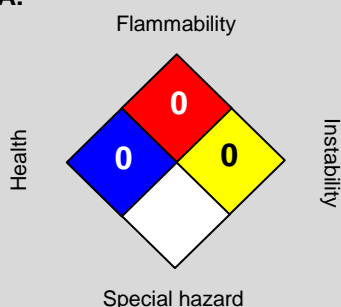
##### HMIS III:

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

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

#### Product AT USE DILUTION

##### NFPA:



##### HMIS III:

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

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

Issuing date : 12/16/2020  
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 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.