

# Material Safety Data Sheet



KEYSTONE APEX HEAVY DUTY DISHMACHINE DETERGENT

## 1. Product and company identification

**Trade name of product** : KEYSTONE APEX HEAVY DUTY DISHMACHINE DETERGENT

**Product use** : Machine Warewashing Detergent

**Product dilution information** : Up to 0.32 oz/gal or 2.5 mL/L in water

**Supplier's information** : Ecolab Co.  
5105 Tomken Road  
Mississauga ON L4W 2X5  
1-800-352-5326

**Code** : 913767-01

**Date of issue** : 16-April-2013

**EMERGENCY HEALTH INFORMATION: 1-800-328-0026**

**Outside United States and Canada CALL 1-651-222-5352 (in USA)**

## 2. Hazards identification

### Product AS SOLD

**Physical state** : Solid

**Emergency overview** : WARNING!

MAY CAUSE EYE IRRITATION.

Avoid contact with eyes. Wash thoroughly after handling.

**Routes of entry** : Skin contact, Eye contact, Ingestion

### Potential acute health effects

### Product AS SOLD

**Eyes** : Slightly irritating to the eyes.

**Skin** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

See toxicological information (Section 11)

### Product AT USE DILUTION

Liquid.

No specific hazard.

No specific hazard.

### Product AT USE DILUTION

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

## 3. Composition/information on ingredients

### Product AS SOLD

#### Name

SODIUM CARBONATE

troclosene sodium, dihydrate

alcohols, c13-15-branched and linear, butoxylated ethoxylated

SODIUM METASILICATE

#### CAS number

497-19-8

51580-86-0

111905-53-4

6834-92-0

#### % by weight

40 - 70

3 - 7

3 - 7

1 - 5

### Product AT USE DILUTION

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting, in accordance with local regulations.

## 4. First-aid measures

|                     | Product AS SOLD                                                           | Product AT USE DILUTION                                                 |
|---------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Eye contact</b>  | : Rinse with water for a few minutes.                                     | No known effect after eye contact. Rinse with water for a few minutes.  |
| <b>Skin contact</b> | : No known effect after skin contact. Rinse with water for a few minutes. | No known effect after skin contact. Rinse with water for a few minutes. |
| <b>Inhalation</b>   | : No special measures required. Treat symptomatically.                    | No special measures required. Treat symptomatically.                    |
| <b>Ingestion</b>    | : Get medical attention if symptoms occur.                                | Get medical attention if symptoms occur.                                |

## 5. Fire-fighting measures

### Product AS SOLD

|                                                       |                                                                                                                                                                                       |
|-------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Auto-ignition temperature</b>                      | : Not available.                                                                                                                                                                      |
| <b>Flammable limits</b>                               | : Not available.                                                                                                                                                                      |
| <b>Hazardous thermal decomposition products</b>       | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>sulfur oxides<br>halogenated compounds<br>metal oxide/oxides |
| <b>Special remarks on fire hazards</b>                | : Not available.                                                                                                                                                                      |
| <b>Special remarks on explosion hazards</b>           | : Not available.                                                                                                                                                                      |
| <b>Fire-fighting media and instructions</b>           | : Use an extinguishing agent suitable for the surrounding fire.<br><br>Dyke area of fire to prevent runoff.<br>No specific fire or explosion hazard.                                  |
| <b>Special protective equipment for fire-fighters</b> | : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.                 |

## 6. Accidental release measures

|                                  | Product AS SOLD                                                                                | Product AT USE DILUTION                                                                      |
|----------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| <b>Personal precautions</b>      | : Use personal protective equipment as required.                                               | Use personal protective equipment as required.                                               |
| <b>Environmental precautions</b> | : Avoid contact of large amounts of spilt material and runoff with soil and surface waterways. | Avoid contact of large amounts of spilt material and runoff with soil and surface waterways. |
| <b>Methods for cleaning up</b>   | : Use a water rinse for final clean-up.                                                        | Use a water rinse for final clean-up.                                                        |

## 7. Handling and storage

|                 | Product AS SOLD                                                                                                                                                                                            | Product AT USE DILUTION         |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>Handling</b> | : Avoid contact with eyes. Do not breathe dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas. | Wash thoroughly after handling. |
| <b>Storage</b>  | : Keep out of reach of children. Store in a closed container.<br>Store between the following temperatures: 0 and 50°C                                                                                      | Keep out of reach of children.  |

## 8. Exposure controls/personal protection

| <b>Product AS SOLD</b>      |                                                                                                             | <b>Product AT USE DILUTION</b>                                                                     |
|-----------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>Engineering measures</b> | : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.        | Good general ventilation should be sufficient to control worker exposure to airborne contaminants. |
| <b>Personal protection</b>  |                                                                                                             |                                                                                                    |
| <b>Eyes</b>                 | : No protective equipment is needed under normal use conditions.                                            | No protective equipment is needed under normal use conditions.                                     |
| <b>Hands</b>                | : No protective equipment is needed under normal use conditions.                                            | No protective equipment is needed under normal use conditions.                                     |
| <b>Skin</b>                 | : No protective equipment is needed under normal use conditions.                                            | No protective equipment is needed under normal use conditions.                                     |
| <b>Respiratory</b>          | : Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded. | No special protection is required.                                                                 |

| <b>Occupational exposure limits</b> |                  | <b>TWA (8 hours)</b> |                         |              | <b>STEL (15 mins)</b> |                         |              | <b>Ceiling</b> |                         |              |                  |
|-------------------------------------|------------------|----------------------|-------------------------|--------------|-----------------------|-------------------------|--------------|----------------|-------------------------|--------------|------------------|
| <b>Ingredient</b>                   | <b>List name</b> | <b>ppm</b>           | <b>mg/m<sup>3</sup></b> | <b>Other</b> | <b>ppm</b>            | <b>mg/m<sup>3</sup></b> | <b>Other</b> | <b>ppm</b>     | <b>mg/m<sup>3</sup></b> | <b>Other</b> | <b>Notations</b> |
| chlorine                            | US ACGIH 2/2010  | 0.5                  | 1.5                     | -            | 1                     | 2.9                     | -            | -              | -                       | -            | [3]              |
|                                     | AB 4/2009        | 0.5                  | 1.5                     | -            | 1                     | 2.9                     | -            | -              | -                       | -            |                  |
|                                     | BC 9/2010        | 0.5                  | -                       | -            | 1                     | -                       | -            | -              | -                       | -            |                  |
|                                     | ON 7/2010        | 0.5                  | 1.5                     | -            | 1                     | 2.9                     | -            | -              | -                       | -            |                  |
|                                     | QC 6/2008        | 0.5                  | 1.5                     | -            | 1                     | 2.9                     | -            | -              | -                       | -            |                  |

## 9. Physical and chemical properties

| <b>Product AS SOLD</b>            |                                                                        | <b>Product AT USE DILUTION</b> |
|-----------------------------------|------------------------------------------------------------------------|--------------------------------|
| <b>Physical state</b>             | : Solid                                                                | Liquid.                        |
| <b>Flash point</b>                | : > 100°C<br>Product does not support combustion.                      | > 100°C                        |
| <b>Colour</b>                     | : White to yellowish                                                   | White [Light]                  |
| <b>Odour</b>                      | : chlorine                                                             | chlorine                       |
| <b>pH</b>                         | : 10.5 to 11.5 [Conc. (% w/w): 1%]                                     | 10.43 to 10.58                 |
| <b>Boiling/condensation point</b> | : 100°C (212°F)                                                        |                                |
| <b>Melting/freezing point</b>     | : Not available.                                                       |                                |
| <b>Relative density</b>           | : Not available.                                                       |                                |
| <b>Vapour pressure</b>            | : Not available.                                                       |                                |
| <b>Vapour density</b>             | : Not available.                                                       |                                |
| <b>Odour threshold</b>            | : Not available.                                                       |                                |
| <b>Evaporation rate</b>           | : Not available.                                                       |                                |
| <b>Viscosity</b>                  | : Not available.                                                       |                                |
| <b>Dispersibility properties</b>  | : Not available.                                                       |                                |
| <b>Solubility</b>                 | : Easily soluble in the following materials: cold water and hot water. |                                |
| <b>LogK<sub>ow</sub></b>          | : Not available.                                                       |                                |

## 10. Stability and reactivity

### Product AS SOLD

- Stability** : The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
- Conditions of instability** : Not available.
- Reactivity** : Slightly reactive or incompatible with the following materials: acids, alkalis and moisture. Do not allow water to enter container. Wet material may generate halogenated gas that may pressurize sealed containers. Mixing this product with acid or ammonia releases chlorine gas.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Hazardous polymerisation** : Under normal conditions of storage and use, hazardous polymerisation will not occur.

## 11. Toxicological information

### Potential acute health effects

#### Product AS SOLD

- Eyes** : Slightly irritating to the eyes.
- Skin** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.

#### Product AT USE DILUTION

- No known significant effects or critical hazards.
- No known significant effects or critical hazards.
- No known significant effects or critical hazards.
- No known significant effects or critical hazards.

### Product AS SOLD

### Potential chronic health effects

- Carcinogenic effects** : No known significant effects or critical hazards.
- Mutagenic effects** : No known significant effects or critical hazards.
- Teratogenic effects** : No known significant effects or critical hazards.
- Reproductive effects** : No known significant effects or critical hazards.
- Sensitization to Product** : No known significant effects or critical hazards.
- Synergistic products (toxicologically)** : Not available.

### Toxicity data

| Product/ingredient name                                       | Test | Route      | Result      | Species |
|---------------------------------------------------------------|------|------------|-------------|---------|
| sodium carbonate                                              | LD50 | Dermal     | >2000 mg/kg | Rabbit  |
|                                                               | LD50 | Oral       | 2800 mg/kg  | Rat     |
|                                                               | LC50 | Inhalation | 1.15 mg/l   | Rat     |
| troclosene sodium, dihydrate                                  | LD50 | Dermal     | >5000 mg/kg | Rat     |
|                                                               | LD50 | Oral       | 1823 mg/kg  | Rat     |
| alcohols, c13-15-branched and linear, butoxylated ethoxylated | LD50 | Dermal     | >2000 mg/kg | Rat     |
|                                                               | LD50 | Oral       | >2000 mg/kg | Rat     |
| disodium metasilicate                                         | LD50 | Oral       | 500 mg/kg   | Rat     |
|                                                               | LD50 | Oral       | 500 mg/kg   | Rat     |

### Other adverse effects

- Target organs** : There is no known chronic effect after exposure to this product.

## 12. Ecological information

Ecotoxicity : Not reported

## 13. Disposal considerations

### Product AS SOLD

**Waste disposal** : Diluted product can be flushed to sanitary sewer.  
Discard empty container in trash.

### Product AT USE DILUTION

Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

## 14. Transport information

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

### Product AS SOLD

#### TDG

TDG Classification Not regulated.

#### IMO/IMDG

IMO/IMDG Classification Not regulated.

For transport in bulk, see shipping documents for specific transportation information.

### Product AT USE DILUTION

Not intended for transport.

## 15. Regulatory information

### Product AS SOLD

**WHMIS** : Not hazardous by WHMIS criteria.

### Product AT USE DILUTION

Not hazardous by WHMIS criteria.

**Canada inventory** : All components are listed or exempted.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## 16. Other information

### Product AS SOLD

**Hazardous Material  
Information System (U.S.A.)** :

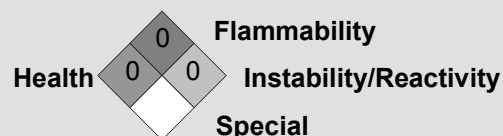
|                  |   |
|------------------|---|
| Health           | 1 |
| Flammability     | 0 |
| Physical hazards | 0 |
|                  |   |

**National Fire Protection  
Association (U.S.A.)** :



### Product AT USE DILUTION

|                  |   |
|------------------|---|
| Health           | 0 |
| Flammability     | 0 |
| Physical hazards | 0 |
|                  |   |



## **16. Other information**

**Date of issue : 16-April-2013**  
**Responsible name : Regulatory Affairs**  
**1-800-352-5326**

☑ Indicates information that has changed from previously issued version.

### **Notice to reader**

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, **NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.**