

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : APEX CHLORINE FREE MACHINE DETERGENT PLUS  
 Other means of identification : not applicable  
 Recommended use : Machine Warewashing Detergent  
 Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.12 % - 0.24 %

Company : Ecolab Inc.  
 370 N. Wabasha Street  
 St. Paul, Minnesota USA 55102  
 1-800-352-5326

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

Issuing date : 02/17/2014

**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 element**

**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:**  
 Specific measures: consult MSDS Section 4.  
**Storage:**  
 Store in accordance with local regulations.

# SAFETY DATA SHEET

## APEX CHLORINE FREE MACHINE DETERGENT PLUS

Other hazards : None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Product AS SOLD

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration (%)
Sodium Carbonate(soda)	497-19-8	60 - 100
oxirane, methyl-, polymer with oxirane	9003-11-6	5 - 10

#### Product AT USE DILUTION

No hazardous ingredients

### SECTION 4. FIRST AID MEASURES

#### Product AS SOLD

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical 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.

#### 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.

See toxicological information (Section 11)

### 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 : Carbon oxides

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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 adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. 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 : 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.

##### 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. Do not ingest. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wash hands thoroughly after handling. Use only with adequate ventilation.

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

Storage temperature : 0 °C to 50 °C

##### Product AT USE DILUTION

Advice on safe handling : For personal protection see section 8. Wash hands after handling.

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

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## APEX CHLORINE FREE MACHINE DETERGENT PLUS

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Product AS SOLD

##### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

##### 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 : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. 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	white
Odor	: slight	odorless
pH	: 10.7 - 11.1, 1 %	10.7 - 11.0
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	
Evaporation rate	: no data available	
Flammability (solid, gas)	: no data available	

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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	: 0.999 - 1.001
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

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	: Carbon 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	: 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.
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### APEX CHLORINE FREE MACHINE DETERGENT PLUS

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

Acute oral toxicity	: Acute toxicity estimate : 3,579 mg/kg
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
STOT-repeated exposure	: no data available
Aspiration toxicity	: no data available

##### Ingredients

Acute inhalation toxicity	: Sodium Carbonate(soda) 4 h LC50 rat: 1.15 mg/l
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### APEX CHLORINE FREE MACHINE DETERGENT PLUS

oxirane, methyl-, polymer with oxirane  
4 h LC50 rat: 0.147 mg/l

#### 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

###### Ingredients

Toxicity to fish : oxirane, methyl-, polymer with oxirane  
96 h LC50 Fish: > 100 mg/l

###### Ingredients

Toxicity to daphnia and other aquatic invertebrates : Sodium Carbonate(soda)  
48 h EC50 Daphnia : 200 mg/l

###### Persistence and degradability

no data available

###### 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.

##### 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-

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## APEX CHLORINE FREE MACHINE DETERGENT PLUS

use empty containers.

### 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

#### Product AT USE DILUTION

Not intended for transport.

### 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** : Acute Health Hazard

**SARA 302** : SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313** : 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.

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

**1907/2006 (EU)** :  
not determined

#### Switzerland. New notified substances and declared preparations :

The mixture contains substances listed on the Swiss Inventory not determined

#### United States TSCA Inventory :

On TSCA Inventory

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

All components of this product are on the Canadian DSL.



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### 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 :

not determined

### Japan. ISHL - Inventory of Chemical Substances (METI) :

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) :

On the inventory, or in compliance with the inventory

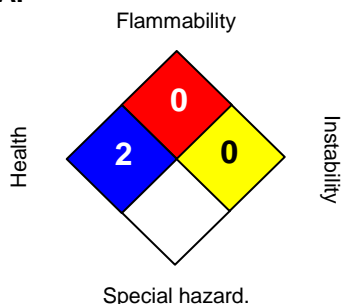
### China. Inventory of Existing Chemical Substances in China (IECSC) :

not determined

## SECTION 16. OTHER INFORMATION

### Product AS SOLD

#### NFPA:



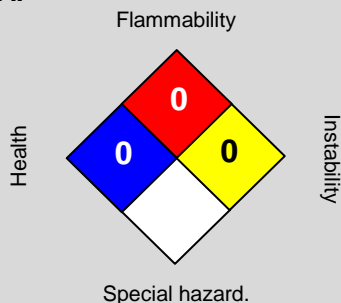
#### HMIS III:

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

### 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 : 02/17/2014  
Version : 1.0  
Prepared by : Regulatory Affairs

## **SAFETY DATA SHEET**

### **APEX CHLORINE FREE MACHINE DETERGENT PLUS**

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.