

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : EVOLUTION SUPERIO

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 % - 0.3 %

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 : 10/28/2014

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. Wear eye protection/ face protection.
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

EVOLUTION SUPERIO

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
Phosphonates	67953-76-8	5 - 10
Alcohol ethoxylate	68439-51-0	1 - 5
Sodium Dichloro-s-triazinetriene	51580-86-0	1 - 5
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 : 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 : Not flammable or combustible.

SAFETY DATA SHEET

EVOLUTION SUPERIO

fighting

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NOx)
Oxides of phosphorus
Metal oxides

Decomposition products may include the following materials:
Carbon oxides
Nitrogen oxides (NOx)
Sulfur oxides
Oxides of phosphorus

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. Do not ingest. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Wash hands thoroughly after handling. Use only with adequate ventilation. Mixing this product with acid or ammonia releases chlorine gas.

Avoid contact with skin and eyes. Wash hands thoroughly after handling.

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

SAFETY DATA SHEET

EVOLUTION SUPERIO

Storage temperature : 0 °C to 50 °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.

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 : Safety glasses with side-shields

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	: solid	liquid
Color	: white	colorless
Odor	: Chlorine	odorless
pH	: 10.5 - 11.4, 1 %	10.1 - 10.3
Flash point	: Not applicable	
Odor Threshold	: No data available	

SAFETY DATA SHEET

EVOLUTION SUPERIO

Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
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	: 1.2 - 1.7
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	: Mixing this product with acid or ammonia releases chlorine gas. No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: None known.
Hazardous decomposition products	: Carbon oxides Nitrogen oxides (NOx) Oxides of phosphorus Metal oxides Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx) Sulfur oxides Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure	: Eye contact, Skin contact
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SAFETY DATA SHEET

EVOLUTION SUPERIO

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.
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	: Redness, Irritation 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 : 2,856 mg/kg
Acute inhalation toxicity	: 4 h Acute toxicity estimate : > 10 mg/l
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg
Skin corrosion/irritation	: No data available

SAFETY DATA SHEET

EVOLUTION SUPERIO

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

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD Ecotoxicity

Environmental Effects : Harmful to aquatic life.

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	: Alcohol ethoxylate 96 h LC50: > 1 mg/l oxirane, methyl-, polymer with oxirane 96 h LC50 Fish: > 100 mg/l
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Ingredients

Toxicity to daphnia and other aquatic invertebrates	: Sodium Carbonate(soda) 48 h EC50 Daphnia : 200 mg/l Phosphonates 48 h EC50: 167 mg/l Sodium Dichloro-s-triazinetriene 48 h EC50 Daphnia : 0.196 mg/l
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Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

SAFETY DATA SHEET

EVOLUTION SUPERIO

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD

Disposal methods : The product should not be allowed to enter drains, water courses or the soil. 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

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.

Air transport (IATA)

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

SAFETY DATA SHEET

EVOLUTION SUPERIO

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:

United States TSCA Inventory :

On TSCA Inventory

Canadian Domestic Substances List (DSL) :

All components of this product are on the Canadian DSL.

Australia Inventory of Chemical Substances (AICS) :

not determined

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) :

not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :

not determined

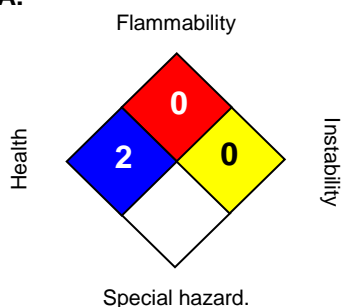
China. Inventory of Existing Chemical Substances in China (IECSC) :

not determined

SECTION 16. OTHER INFORMATION

Product AS SOLD

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARD	0

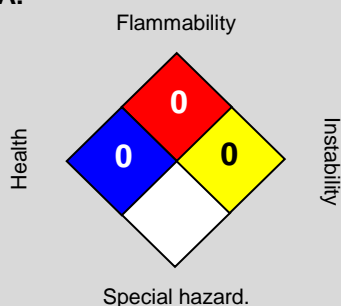
0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Product AT USE DILUTION

SAFETY DATA SHEET

EVOLUTION SUPERIO

NFPA:



HMIS III:

HEALTH	0
FLAMMABILITY	0
PHYSICAL HAZARD	0

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 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.