

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : ASTRI-L  
Other means of identification : not applicable  
Recommended use : Cleaning product  
Restrictions on use : Reserved for industrial and professional use.  
Product dilution information : 0.0 % - 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 : 05/23/2014

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification****Product AS SOLD**

Oxidizing liquids : Category 3  
Organic peroxides : Type F  
Acute toxicity (Oral) : Category 4  
Skin corrosion : Category 1A  
Serious eye damage : Category 1  
Specific target organ systemic toxicity - single exposure : Category 3 (Respiratory system)

**Product AT USE DILUTION**

Skin corrosion : Category 1A  
Serious eye damage : Category 1

**GHS Label element****Product AS SOLD**

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Heating may cause a fire.  
May intensify fire; oxidizer.  
Harmful if swallowed.  
Causes severe skin burns and eye damage.  
May cause respiratory irritation.

Precautionary Statements : **Prevention:**  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Keep/Store away from clothing/ combustible materials. Take any

# SAFETY DATA SHEET

## ASTRI-L

precaution to avoid mixing with combustibles. Keep only in original container. Keep cool. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/ protective clothing/ eye protection/ face protection. Warning! Do not use together with other products. May release dangerous gases (chlorine).

**Response:**

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Store away from other materials.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

### Product AT USE DILUTION

Hazard pictograms



Signal Word

: Danger

Hazard Statements

: Causes severe skin burns and eye damage.

Precautionary Statements

: **Prevention:**

Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

IF SWALLOWED: rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician. Wash contaminated clothing before reuse.

**Storage:**

Store locked up.

**Disposal:**

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

: None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

### Product AS SOLD

Pure substance/mixture

: Mixture

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Chemical Name	CAS-No.	Concentration (%)
Hydrogen peroxide	7722-84-1	26.3125
Peroxyacetic acid	79-21-0	5 - 10
Acetic acid	64-19-7	5 - 10
dodecylbenzene sulfonic acid	27176-87-0	0.1 - 1

### 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 immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention immediately.

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 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 immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. 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.

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Specific hazards during fire fighting	: Oxidizer. Contact with other material may cause fire.
Hazardous combustion products	: Carbon oxides
Special protective equipment for fire-fighters	: Use personal protective equipment.
Specific extinguishing methods	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. 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	: 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.
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## SECTION 7. HANDLING AND STORAGE

### Product AS SOLD

Advice on safe handling	: Do not ingest. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation. Warning! Do not use together with other products. May release dangerous gases (chlorine).
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Conditions for safe storage : Keep in a cool, well-ventilated place. Keep away from reducing agents. Keep away from strong bases. Keep away from combustible material. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 0 °C to 40 °C

### Product AT USE DILUTION

Advice on safe handling : Do not ingest. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not get in eyes, on skin, or on clothing. 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.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Product AS SOLD

#### Ingredients with workplace control parameters

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
Hydrogen peroxide	7722-84-1	TWA	1 ppm	ACGIH
		TWA	1 ppm 1.4 mg/m <sup>3</sup>	NIOSH REL
		TWA	1 ppm 1.4 mg/m <sup>3</sup>	OSHA Z1
Peroxyacetic acid	79-21-0	STEL	0.4 ppm	ACGIH
Acetic acid	64-19-7	TWA	10 ppm	ACGIH
		STEL	15 ppm	ACGIH
		STEL	15 ppm 37 mg/m <sup>3</sup>	NIOSH REL
		TWA	10 ppm 25 mg/m <sup>3</sup>	NIOSH REL
		TWA	10 ppm 25 mg/m <sup>3</sup>	OSHA Z1

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

#### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

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

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practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

### Product AT USE DILUTION

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

### Personal protective equipment

Eye protection : Safety goggles  
Face-shield

Hand protection : Wear the following personal protective equipment:  
Standard glove type.  
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

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

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

	Product AS SOLD	Product AT USE DILUTION
Appearance	: liquid	liquid
Color	: clear, colorless	light yellow
Odor	: pungent	pungent
pH	: 2.0, 100 %	1.5 - 3.5
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	
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	: 1.08 - 1.16	
Water solubility	: soluble	
Solubility in other solvents	: no data available	
Partition coefficient: n-octanol/water	: no data available	
Autoignition temperature	: no data available	

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Thermal decomposition	: no data available
Viscosity, kinematic	: no data available
Explosive properties	: no data available
Oxidizing properties	: yes
Molecular weight	: no data available
VOC	: no data available

## SECTION 10. STABILITY AND REACTIVITY

### Product AS SOLD

Chemical stability	: pressure build-up
Possibility of hazardous reactions	: Warning! Do not use together with other products. May release dangerous gases (chlorine).
Conditions to avoid	: None known.
Incompatible materials	: Bases Metals
Hazardous decomposition products	: Carbon oxides

## SECTION 11. TOXICOLOGICAL INFORMATION

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

### Potential Health Effects

#### Product AS SOLD

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Harmful if swallowed. Causes digestive tract burns.
Inhalation	: May cause respiratory tract irritation. May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

#### Product AT USE DILUTION

Eyes	: Causes serious eye damage.
Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

### Experience with human exposure

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Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

### Product AT USE DILUTION

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

## Toxicity

### Product AS SOLD

Acute oral toxicity	: Acute toxicity estimate : 1,651 mg/kg
Acute inhalation toxicity	: 4 h Acute toxicity estimate : 32.9 mg/l
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg
Skin corrosion/irritation	: no data available
Serious eye damage/eye irritation	: no data available
Respiratory or skin sensitization	: no data available
Carcinogenicity	
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
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	: This product has no known ecotoxicological effects.
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### 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 : Peroxyacetic acid  
96 h LC50: 0.8 mg/l

Acetic acid  
96 h LC50: 75 mg/l

dodecylbenzene sulfonic acid  
96 h LC50 Fish: 4.3 mg/l

### Ingredients

Toxicity to daphnia and other aquatic invertebrates : Peroxyacetic acid  
48 h EC50: 0.73 mg/l

### Ingredients

Toxicity to algae : Hydrogen peroxide  
72 h EC50: 1.38 mg/l

Peroxyacetic acid  
72 h EC50: 0.7 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.

RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste : D001 (Ignitable)  
D002 (Corrosive)

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### 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 reuse 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)

UN number	: 3109
Description of the goods	: Organic peroxide type F, liquid (Peroxyacetic acid)
Class	: 5.2 (8)
Packing group	: II
Environmentally hazardous	: no

#### Sea transport (IMDG/IMO)

UN number	: 3109
Description of the goods	: ORGANIC PEROXIDE TYPE F, LIQUID (Peroxyacetic acid)
Class	: 5.2 (8)
Marine pollutant	: no

### 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

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Acetic acid	64-19-7	5000	85837

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

#### SARA 311/312 Hazards

- : Fire Hazard
- Reactivity Hazard
- Acute Health Hazard

#### SARA 302

- : The following components are subject to reporting levels established by SARA Title III, Section 302:

Peroxyacetic acid	79-21-0	7.125 %
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### ASTRI-L

**SARA 313** : The following components are subject to reporting levels established by SARA Title III, Section 313:

Peroxyacetic acid	79-21-0	7.125 %
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#### **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 :**

On the inventory, or in compliance with the inventory

**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) :**

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

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

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

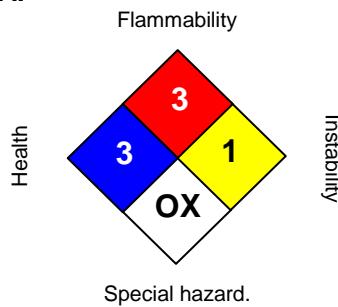
### SECTION 16. OTHER INFORMATION

**Product AS SOLD**

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## ASTRI-L

### NFPA:



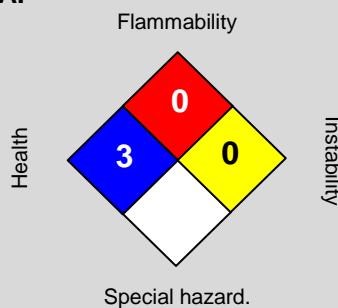
### HMIS III:

HEALTH	3
FLAMMABILITY	3
PHYSICAL HAZARD	1

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

### Product AT USE DILUTION

### NFPA:



### HMIS III:

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Issuing date : 05/23/2014  
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.