

**Section: 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : KOOL KLENE

Other means of identification : Not applicable.

Recommended use : Cleaning product

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : Product is sold ready to use.

Company : Ecolab Co.  
5105 Tomken Road  
Mississauga, Ontario Canada L4W 2X5  
1-800-352-5326


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

Issuing date : 05/19/2016

**Section: 2. HAZARDS IDENTIFICATION**
**GHS Classification**

Flammable liquids : Category 3  
Eye irritation : Category 2B

**GHS Label element**

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : Flammable liquid and vapour.  
Causes eye irritation.

Precautionary Statements : **Prevention:**  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground and bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use non-sparking tools. Take action to prevent static discharges. Wash skin thoroughly after handling.  
**Response:**  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. 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. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
**Storage:**  
Store in a well-ventilated place. Keep cool.  
**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

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Other hazards : None known.

### Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration: (%)
glycerin	56-81-5	30 - 60
propan-2-ol	67-63-0	5 - 10
monoethanolamine	141-43-5	1 - 5
poly(oxy-1,2-ethanediyl), .alpha.-undecyl-.omega.-hydroxy-	34398-01-1	1 - 5

### Section: 4. FIRST AID MEASURES

- 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 : Treat symptomatically.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

### Section: 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Fire Hazard  
Keep away from heat and sources of ignition.  
Flash back possible over considerable distance.  
Beware of vapours accumulating to form explosive concentrations.  
Vapours can accumulate in low areas.
- Hazardous combustion products : Decomposition products may include the following materials:  
Carbon oxides  
nitrogen oxides (NOx)  
Sulphur oxides  
Oxides of phosphorus
- Special protective equipment for firefighters : Use personal protective equipment.
- Specific extinguishing methods : Use water spray to cool unopened containers. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion

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do not breathe fumes.

Risk of explosion. : Not available.

### Section: 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Remove all sources of ignition. 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 : Eliminate all ignition sources if safe to do so. 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

Advice on safe handling : Keep away from fire, sparks and heated surfaces. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Wash hands thoroughly after handling.

Conditions for safe storage : Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Keep away from oxidizing agents. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

Storage temperature : 0 °C to 35 °C

### Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
glycerin	56-81-5	TWA (Mist)	10 mg/m <sup>3</sup>	CAD AB OEL
		TWA (Mist)	10 mg/m <sup>3</sup>	CAD BC OEL
		VME (Mist)	10 mg/m <sup>3</sup>	OEL (QUE)
glycerin	56-81-5	TWA	10 mg/m <sup>3</sup>	ACGIH
		TWA (respirable fraction)	5 mg/m <sup>3</sup>	OSHA Z1
propan-2-ol	67-63-0	TWA	200 ppm 492 mg/m <sup>3</sup>	CAD AB OEL
		STEL	400 ppm 984 mg/m <sup>3</sup>	CAD AB OEL
		TWA	200 ppm	CAD BC OEL
		STEL	400 ppm	CAD BC OEL
		VME	400 ppm 983 mg/m <sup>3</sup>	OEL (QUE)
		STEV	500 ppm 1,230 mg/m <sup>3</sup>	OEL (QUE)

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propan-2-ol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m <sup>3</sup>	NIOSH REL
		STEL	500 ppm 1,225 mg/m <sup>3</sup>	NIOSH REL
		TWA	400 ppm 980 mg/m <sup>3</sup>	OSHA Z1
monoethanolamine	141-43-5	STEL	6 ppm 15 mg/m <sup>3</sup>	CAD AB OEL
		TWA	3 ppm 7.5 mg/m <sup>3</sup>	CAD AB OEL
		TWA	3 ppm	CAD BC OEL
		STEL	6 ppm	CAD BC OEL
		VME	3 ppm 7.5 mg/m <sup>3</sup>	OEL (QUE)
		STEV	6 ppm 15 mg/m <sup>3</sup>	OEL (QUE)
monoethanolamine	141-43-5	TWA	3 ppm	ACGIH
		STEL	6 ppm	ACGIH
		TWA	3 ppm 8 mg/m <sup>3</sup>	NIOSH REL
		STEL	6 ppm 15 mg/m <sup>3</sup>	NIOSH REL
		TWA	3 ppm 6 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 : 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 : Handle in accordance with good industrial hygiene and safety practice.

### Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: cloudy, light green
Odour	: alcohol-like
pH	: 10.6 - 11.8, 100 %
Flash point	: 41 °C closed cup, Sustains combustion
Odour Threshold	: no data available
Melting point/freezing point	: no data available
Initial boiling point and boiling range	: no data available

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Evaporation rate	: no data available
Flammability (solid, gas)	: no data available
Upper explosion limit	: no data available
Lower explosion limit	: no data available
Vapour pressure	: no data available
Relative vapour density	: no data available
Relative density	: 1.065 - 1.085
Water solubility	: soluble
Solubility in other solvents	: no data available
Partition coefficient: n-octanol/water	: no data available
Auto-ignition 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

Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Acids
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NOx) Sulphur oxides Oxides of phosphorus

### Section: 11. TOXICOLOGICAL INFORMATION

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

#### Potential Health Effects

Eyes	: Causes 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.

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Chronic Exposure : Health injuries are not known or expected under normal use.

### Experience with human exposure

Eye contact : Redness, Irritation  
Skin contact : No symptoms known or expected.  
Ingestion : No symptoms known or expected.  
Inhalation : No symptoms known or expected.

### Toxicity

#### Product

Acute oral toxicity : Acute toxicity estimate : > 5,000 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 : Mild skin irritation  
Serious eye damage/eye irritation : Mild eye irritation  
Method: OECD Test Guideline 437  
Test substance: Product  
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

### 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  
propan-2-ol  
96 h LC50 Pimephales promelas (fathead minnow): 9,640 mg/l

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poly(oxy-1,2-ethanediyl), .alpha.-undecyl-.omega.-hydroxy-  
96 h LC50 Fish: 3.2 mg/l

### Components

Toxicity to daphnia and other aquatic invertebrates : propan-2-ol  
LC50 Daphnia magna (Water flea): > 10,000 mg/l

monoethanolamine  
48 h EC50 Daphnia: 65 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

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. Dispose of in accordance with local, state, and federal regulations.

## Section: 14. TRANSPORT INFORMATION

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 (TDG)

UN number : 1993  
Description of the goods : FLAMMABLE LIQUID, N.O.S.  
(Isopropanol)  
Class : 3  
Packing group : III  
Environmentally hazardous : No

### Sea transport (IMDG/IMO)

UN number : 1993  
Description of the goods : FLAMMABLE LIQUID, N.O.S.  
(Isopropanol)  
Class : 3  
Packing group : III  
Marine pollutant : No

## Section: 15. REGULATORY INFORMATION

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This product has been classified according to the hazard criteria of the HPR and the SDS contains all of the information required by the HPR.

**NPRI Components** : propan-2-ol  
2,2'-iminodiethanol  
formaldehyde

**The components 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. Industrial Chemical (Notification and Assessment) Act :**  
On the inventory, or in compliance with the inventory

**New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand :**  
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) :**  
not determined

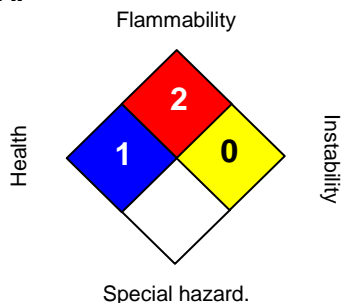
**Korea. Korean Existing Chemicals Inventory (KECI) :**  
On the inventory, or in compliance with the inventory

**Philippines Inventory of Chemicals and Chemical Substances (PICCS) :**  
On the inventory, or in compliance with the inventory

**China Inventory of Existing Chemical Substances :**  
On the inventory, or in compliance with the inventory

## Section: 16. OTHER INFORMATION

### NFPA:



### HMIS III:

<b>HEALTH</b>	<b>1</b>
<b>FLAMMABILITY</b>	<b>2</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

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version : 1.2  
Prepared by : Regulatory Affairs 1-800-352-5326



## **SAFETY DATA SHEET**

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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.