

# SAFETY DATA SHEET

**ECOLAB®**

MIKROKLENE

## Section 1. Chemical product and company identification

**Product name** : MIKROKLENE  
**Recommended use and restrictions** : Sanitizer.  
Use only for the purpose on the product label.

**Product dilution information** : Not applicable

**Supplier's information** : Ecolab Inc. Institutional Division  
370 N. Wabasha Street  
St. Paul, MN 55102  
1-800-352-5326

**Code** : 929422-03

**Date of issue** : 08 Jan 2014

**EPA Registration No.** : 1677-22

EMERGENCY HEALTH INFORMATION: 1-800-328-0026  
Outside United States and Canada CALL 1-651-222-5352 (in USA)

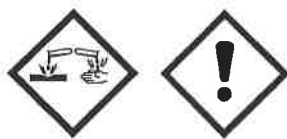
## Section 2. Hazards identification

**GHS Classification** : **Product AS SOLD**  
ACUTE TOXICITY: ORAL - Category 4  
ACUTE TOXICITY: SKIN - Category 4  
ACUTE TOXICITY: INHALATION - Category 4  
SKIN CORROSION/IRRITATION - Category 1  
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

### GHS label elements

**Signal word** : Danger

**Symbol** :



**Hazard statements** : Harmful if swallowed, in contact with skin or if inhaled.  
Causes severe skin burns and eye damage.

### Precautionary statements

**Prevention** : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from flames and hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products - will cause chlorine gas.

**Response** :

### **Product AT USE DILUTION**

Data not available - Refer to Product AS SOLD

## Section 2. Hazards identification

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF ON SKIN: Wash with plenty of soap and water. Call a POISON CENTER or physician if you feel unwell. 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 physician.

- Storage** : No other specific measures identified.
- Disposal** : See section 13 for waste disposal information.
- Other hazards** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

### Product AS SOLD

Hazardous ingredients	Concentration Range (%)	CAS number
PHOSPHORIC ACID	6.55	7664-38-2
BUTOXYETHANOL	2	111-76-2
oxirane, methyl-, polymer with oxirane, monobutyl ether	5 - 20	9038-95-3
iodine	2.00	7553-56-2

### Product AT USE DILUTION

Hazardous ingredients	Concentration Range (%)	CAS number
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Data not available - Refer to Product AS SOLD

## Section 4. First aid measures

	Product AS SOLD	Product AT USE DILUTION
<b>Eye contact</b>	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.	Data not available - Refer to Product AS SOLD
<b>Skin contact</b>	: Take off immediately all contaminated clothing. Rinse skin with water or shower. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.	
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.	
<b>Ingestion</b>	: Get medical attention immediately. Rinse mouth. Do not induce vomiting.	

## Section 4. First aid measures

- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If ventilation is inadequate, use respirator that will protect against dust/mist. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- See toxicological information (section 11)

## Section 5. Fire-fighting measures

### Product AS SOLD

- Suitable fire extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Specific hazards arising from the chemical** : Combustible liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
phosphorus oxides  
halogenated compounds
- Specific fire-fighting methods** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

	Product AS SOLD	Product AT USE DILUTION
<b>Personal precautions</b>	: Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see section 8). Eliminate all ignition sources. Use personal protective equipment as required. Do not touch or walk through spilled material.	Data not available - Refer to Product AS SOLD
<b>Environmental precautions</b>	: Avoid contact of spilled material and runoff with soil and surface waterways.	
<b>Methods for cleaning up</b>	: Follow company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see section 8). Absorb/neutralize liquid material. Use a tool to scoop up solid or absorbed material and put into appropriate labeled container. If emergency personnel are not present, contain and collect small spillages with non-combustible absorbent material, e.g. sand, earth or other suitable material and place in a suitable container for disposal. Use a tool to scoop up solid or absorbed material and place into appropriate labeled waste container. Use a water rinse for final clean-up.	

## Section 7. Handling and storage

	<b>Product AS SOLD</b>
<b>Handling</b>	: Do not ingest. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Keep away from heat, sparks and flame. To avoid fire, eliminate ignition sources. Use only with adequate ventilation. Wash thoroughly after handling. Do not mix with bleach or other chlorinated products - will cause chlorine gas.
<b>Storage</b>	: Keep out of reach of children. Keep container tightly closed. Keep container tightly closed and sealed until ready for use. Keep container in a cool, well-ventilated area. Avoid all possible sources of ignition (spark or flame). Store in a segregated and approved area.  Store between the following temperatures: 0 and 40°C

### Product AT USE DILUTION

Data not available - Refer to Product AS SOLD

## Section 8. Exposure controls/personal protection

### Control parameters

Ingredient name	Exposure limits
PHOSPHORIC ACID	<b>ACGIH TLV (United States, 3/2012).</b> STEL: 3 mg/m <sup>3</sup> 15 minutes. TWA: 1 mg/m <sup>3</sup> 8 hours. <b>OSHA PEL (United States, 6/2010).</b> TWA: 1 mg/m <sup>3</sup> 8 hours. <b>NIOSH REL (United States, 6/2009).</b> TWA: 1 mg/m <sup>3</sup> 10 hours. STEL: 3 mg/m <sup>3</sup> 15 minutes.
iodine	<b>ACGIH TLV (United States, 3/2012).</b> TWA: 0.01 ppm 8 hours. Form: Inhalable fraction and vapor STEL: 0.1 ppm 15 minutes. Form: Vapour and aerosols <b>OSHA PEL (United States, 6/2010).</b> CEIL: 1 mg/m <sup>3</sup> CEIL: 0.1 ppm <b>NIOSH REL (United States, 6/2009).</b> CEIL: 0.1 ppm CEIL: 1 mg/m <sup>3</sup>
BUTOXYETHANOL	<b>ACGIH TLV (United States, 3/2012).</b> TWA: 20 ppm 8 hours. <b>OSHA PEL (United States, 6/2010).</b> <b>Absorbed through skin.</b> TWA: 240 mg/m <sup>3</sup> 8 hours. TWA: 50 ppm 8 hours. <b>NIOSH REL (United States, 6/2009).</b> <b>Absorbed through skin.</b> TWA: 5 ppm 10 hours. TWA: 24 mg/m <sup>3</sup> 10 hours.

## Section 8. Exposure controls/personal protection

	Product AS SOLD	Product AT USE DILUTION
<b>Appropriate engineering controls</b>	: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.	Data not available - Refer to Product AS SOLD
<b><u>Personal protection</u></b>		
<b>Eye protection</b>	: Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.	
<b>Hand protection</b>	: Use chemical-resistant, impervious gloves.	
<b>Skin protection</b>	: Use suitable protective clothing.	
<b>Respiratory protection</b>	: Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded.	
<b>Hygiene measures</b>	: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.	

## Section 9. Physical and chemical properties

	Product AS SOLD	Product AT USE DILUTION
<b>Physical state</b>	: Liquid.	Data not available - Refer to Product AS SOLD
<b>Color</b>	: Brown [Dark]	
<b>Odor</b>	: Faint odor	
<b>pH</b>	: 1.75 (100%)	
<b>Flash point</b>	: 93 °C (Closed cup)	
<b>Explosion limits</b>	: Not available.	
<b>Flammability (solid, gas)</b>	: Not available.	
<b>Melting point</b>	: Not available.	
<b>Boiling point</b>	: Not available.	
<b>Evaporation rate (butyl acetate = 1)</b>	: Not available.	
<b>Vapor pressure</b>	: Not available.	
<b>Vapor density</b>	: Not available.	
<b>Relative density</b>	: 1.077 (Water = 1)	
<b>Solubility</b>	: Not available.	

## Section 9. Physical and chemical properties

Partition coefficient:	: Not available.
n-octanol/water	
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Odor threshold	: Not available.
Viscosity	: Kinematic (room temperature): 0 cm <sup>2</sup> /s (0 cSt)

## Section 10. Stability and reactivity

### Product AS SOLD

Stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid	: Highly reactive or incompatible with the following materials: alkalis. Reactive or incompatible with the following materials: metals. Slightly reactive or incompatible with the following materials: organic materials and moisture. Do not mix with bleach or other chlorinated products - will cause chlorine gas.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

Route of exposure : Skin contact, Eye contact, Inhalation, Ingestion

### Product AS SOLD

#### Symptoms

Eye contact	: Adverse symptoms may include the following: pain watering redness
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Inhalation	: Adverse symptoms may include the following: coughing Respiratory tract irritation
Ingestion	: Adverse symptoms may include the following: stomach pains

#### Acute toxicity

Eye contact	: Causes serious eye damage.
Skin contact	: Causes severe burns. Harmful in contact with skin.
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Ingestion	: Harmful if swallowed. May cause burns to mouth, throat and stomach.

#### Toxicity data

### Product AT USE DILUTION

Data not available - Refer to Product AS SOLD

## Section 11. Toxicological information

### Product/ingredient name

oxirane, methyl-, polymer with oxirane,  
monobutyl ether  
phosphoric acid

LC50 Inhalation Rat 4670 mg/m<sup>3</sup>

Dusts and mists

LC50 Inhalation Rat 0.962 mg/l

Dusts and mists

LD50 Dermal Rat >2000 mg/kg

LD50 Oral Rat >2000 mg/kg

iodine

LC50 Inhalation Rat >4.588 mg/l

Dusts and mists

LD50 Dermal Rabbit 1425 mg/kg

LD50 Oral Rabbit 14000 mg/kg

2-butoxyethanol

LC50 Inhalation Rat 3.8 mg/l

Vapor

LD50 Dermal Rabbit 2000 mg/kg

LD50 Oral Rat 1500 mg/kg

### Chronic toxicity

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

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

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

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

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

## Section 12. Ecological information

### Product AS SOLD

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

### Aquatic and terrestrial toxicity

Product/ingredient name

Result

Species

Exposure

Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### Product AS SOLD

**Disposal methods** : Avoid disposal. Attempt to use product completely in accordance with intended use. Disposal should be in accordance with applicable regional, national and local laws and regulations.

**RCRA classification** : Unused product is D002 (Corrosive)

### Product AT USE DILUTION

Data not available - Refer to Product AS SOLD

## Section 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.

### DOT

**DOT Classification** UN1805

**DOT Proper shipping name** Phosphoric acid solution

**Class** 8

**Packing group** III

### IMO/IMDG

**IMO/IMDG Classification** UN1805

**IMO/IMDG Proper shipping name** PHOSPHORIC ACID SOLUTION

**Section 14. Transport information**

Class 8

Packing group III

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

**Product AT USE DILUTION**

Not intended for transport.

**Section 15. Regulatory information**

Product AS SOLD

**U.S. Federal regulations**

TSCA 8(b) inventory : All components are listed or exempted.

EPA Registration No. : 1677-22

SARA 302/304/311/312 extremely hazardous substances: No listed substance

SARA 302/304 emergency planning and notification: No listed substance

**SARA 313****Product name****CAS number****Concentration**

Form R - Reporting requirements : 2-butoxyethanol

111-76-2 1.8037

**California Prop. 65** : No listed substance**Section 16. Other information**

Product AS SOLD

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

Health	*	3
Flammability		1
Physical hazards		0

National Fire Protection  
Association (U.S.A.) :Date of issue : 08 Jan 2014  
Prepared by : Regulatory Affairs  
1-800-352-5326**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.