



## SAFETY DATA SHEET

### MIKROKLENE DF

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : MIKROKLENE DF

Other means of identification : not applicable

Recommended use : Sanitizer - Food contact surface

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : No dilution information provided.

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 : 06/18/2014

#### SECTION 2. HAZARDS IDENTIFICATION

##### GHS Classification

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Acute toxicity (Dermal) : Category 4

Skin corrosion : Category 1A

Serious eye damage : Category 1

##### GHS Label element

Hazard pictograms :



Signal Word : Danger

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

Precautionary Statements : **Prevention:**  
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. Do not mix with bleach or other chlorinated products – will cause chlorine gas.

**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

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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

Pure substance/mixture : Mixture

Chemical Name	CAS-No.	Concentration (%)
Alkylethoxy-propoxylates	9038-95-3	10 - 30
Phosphoric acid	7664-38-2	6.55
Iodine	7553-56-2	2
2-butoxyethanol	111-76-2	1 - 5

### SECTION 4. FIRST AID MEASURES

- 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.
- Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- Notes to physician : Treat symptomatically.

See toxicological information (Section 11)

### SECTION 5. FIRE-FIGHTING MEASURES

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

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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

- 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.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not mix with bleach or other chlorinated products – will cause chlorine gas.
- Conditions for safe storage : Keep away from strong bases. Keep out of reach of children. Store in suitable labeled containers.
- Storage temperature : 0 °C to 40 °C

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
Phosphoric acid	7664-38-2	TWA	1 mg/m <sup>3</sup>	ACGIH
		STEL	3 ppm	ACGIH
		TWA	1 mg/m <sup>3</sup>	NIOSH REL
		STEL	3 mg/m <sup>3</sup>	NIOSH REL
iodine	7553-56-2	TWA (Inhalable fraction and vapor)	0.01 ppm	ACGIH
		Ceiling	0.1 ppm 1 mg/m <sup>3</sup>	NIOSH REL
		C	0.1 ppm 1 mg/m <sup>3</sup>	OSHA Z1

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		STEL	0.1 ppm	ACGIH
2-butoxyethanol	111-76-2	TWA	20 ppm	ACGIH
		TWA	5 ppm 24 mg/m <sup>3</sup>	NIOSH REL
		TWA	50 ppm 240 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 : Wear suitable 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 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.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : liquid
- Color : dark brown
- Odor : slight
- pH : 1.75, 100 %
- Flash point : > 100 °C closed cup
- Odor Threshold : no data available
- 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 : 1.077
- Water solubility : no data available
- Solubility in other solvents : no data available

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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	: 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	: Do not mix with bleach or other chlorinated products – will cause chlorine gas.
Conditions to avoid	: None known.
Incompatible materials	: Bases Metals Organic materials
Hazardous decomposition products	: Decomposition products may include the following materials: Carbon oxides nitrogen oxides (NO <sub>x</sub> ) Sulfur oxides Oxides of phosphorus

### SECTION 11. TOXICOLOGICAL INFORMATION

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

#### Potential Health Effects

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

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

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#### Toxicity

Acute oral toxicity	: Acute toxicity estimate : > 500 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate : > 1 mg/l
Acute dermal toxicity	: Acute toxicity estimate : > 1,000 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

#### 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	: Phosphoric acid 96 h LC50: 75.1 mg/l
	: 2-butoxyethanol 96 h LC50: 1,474 mg/l

#### Ingredients

Toxicity to daphnia and other aquatic invertebrates	: 2-butoxyethanol 48 h EC50: 690 mg/l
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#### Ingredients

Toxicity to algae : iodine  
72 h EC50: 1 mg/l

2-butoxyethanol  
72 h EC50: 911 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 : 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.

### 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 (DOT)

UN number : 1805  
Description of the goods : Phosphoric acid solution  
Class : 8  
Packing group : III  
Environmentally hazardous : no

#### Sea transport (IMDG/IMO)

UN number : 1805  
Description of the goods : PHOSPHORIC ACID SOLUTION  
Class : 8  
Packing group : III  
Marine pollutant : no

### SECTION 15. REGULATORY INFORMATION

EPA Registration number : 1677-58

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#### EPCRA - Emergency Planning and Community Right-to-Know

##### CERCLA Reportable Quantity

Ingredients	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Phosphoric acid	7664-38-2	5000	76365

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

2-butoxyethanol	111-76-2	1.8036 %
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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** :  
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.

**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)** :  
On the inventory, or in compliance with the inventory

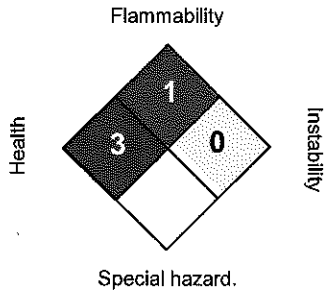


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## SECTION 16. OTHER INFORMATION

**NFPA:**



**HMIS III:**

<b>HEALTH</b>	<b>3</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>

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

Issuing date : 06/18/2014  
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.