

MIKROKLENE
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

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|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product name | : MIKROKLENE |
| Other means of identification | : Not applicable |
| Recommended use | : Sanitizer |
| Restrictions on use | : Reserved for industrial and professional use. |
| Product dilution information | : No dilution information provided. |
| Company | : Ecolab S. de RL. De CV AVENUE INDUSTRIALES 28 SUBURB: INDUSTRIAL CUAMATLA, MPIO: CUAUTITLAN IZCALLI, EDO DE MEXICO, Mexico CP. 54700 (55) 5864 1800 |
| Emergency telephone | : 800 837 2998 Please request assistance in Spanish language |
| Issuing date | : 15.02.2023 |

SECTION 2. HAZARDS IDENTIFICATION
GHS Classification

| | |
|-----------------------------------------------|------|
| Corrosive to Metals, Category 1 | H290 |
| Acute toxicity (Inhalation), Category 4 | H332 |
| Skin corrosion, Sub-category 1A | H314 |
| Serious eye damage, Category 1 | H318 |
| Short-term (acute) aquatic hazard, Category 3 | H402 |

GHS label elements

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| Hazard pictograms | : |   |
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|-------------|----------|
| Signal Word | : Danger |
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| Hazard Statements | : | H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H332 Harmful if inhaled. H402 Harmful to aquatic life. |
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| | | |
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| Precautionary Statements | : | Prevention: P234 Keep only in original container. P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. |
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P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 + P310 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.
P363 Wash contaminated clothing before reuse.
P390 Absorb spillage to prevent material damage.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards : Do not mix with bleach or other chlorinated products – will cause chlorine gas.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture : Mixture

| Chemical name | CAS-No. | Concentration (%) |
|--------------------------|-----------|-------------------|
| Alkylethoxy-propoxylates | 9038-95-3 | 10 - 20 |
| Phosphoric acid | 7664-38-2 | 5 - 10 |
| iodine | 7553-56-2 | 1 - 5 |
| 2-butoxyethanol | 111-76-2 | 1 - 5 |

No hazardous ingredients

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.

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

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.

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| 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. |

SECTION 5. FIRE-FIGHTING MEASURES

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| 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 (NO _x) 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

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| 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. |
| 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). 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 | : Refer to protective measures listed. |
| Environmental precautions | : No special environmental precautions required. |
| Methods and materials for | : Stop leak if safe to do so. Contain spillage, and then collect with non- |

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| containment and cleaning up | combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. |
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SECTION 7. HANDLING AND STORAGE

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| 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. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). |
| Conditions for safe storage | : Keep away from strong bases. 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

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| Advice on safe handling | : Wash hands after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). 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

Ingredients with workplace control parameters

| Components | CAS-No. | Form of exposure | Permissible concentration | Basis |
|-----------------|-----------|--------------------------------------------|---------------------------|-------------------|
| Phosphoric acid | 7664-38-2 | VLE-PPT | 1 mg/m ³ | NOM-010-STPS-2014 |
| | | VLE-CT | 3 mg/m ³ | NOM-010-STPS-2014 |
| Phosphoric acid | 7664-38-2 | TWA | 1 mg/m ³ | ACGIH |
| | | STEL | 3 mg/m ³ | ACGIH |
| | | TWA | 1 mg/m ³ | NIOSH REL |
| | | ST | 3 mg/m ³ | NIOSH REL |
| | | TWA | 1 mg/m ³ | OSHA Z-1 |
| | | TWA | 1 mg/m ³ | OSHA P0 |
| | | STEL | 3 mg/m ³ | OSHA P0 |
| | | PEL | 1 mg/m ³ | CAL PEL |
| | | STEL | 3 mg/m ³ | CAL PEL |
| iodine | 7553-56-2 | VLE-PPT (Inhalable fraction and vapour) | 0,01 ppm | NOM-010-STPS-2014 |
| | | VLE-CT (Vapour and aerosol) | 0,1 ppm | NOM-010-STPS-2014 |
| iodine | 7553-56-2 | TWA (Inhalable fraction and vapor) | 0,01 ppm | ACGIH |

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|-----------------|-----------|---------------------------------------------|---------------------|-------------------|
| | | C | 0,1 ppm 1 mg/m3 | NIOSH REL |
| | | C | 0,1 ppm 1 mg/m3 | OSHA Z-1 |
| | | STEL (Vapor) | 0,1 ppm | ACGIH |
| | | C | 0,1 ppm 1 mg/m3 | OSHA P0 |
| | | C | 0,1 ppm 1 mg/m3 | CAL PEL |
| 2-butoxyethanol | 111-76-2 | VLE-PPT | 20 ppm | NOM-010-STPS-2014 |
| 2-butoxyethanol | 111-76-2 | TWA | 20 ppm | ACGIH |
| | | TWA | 5 ppm 24 mg/m3 | NIOSH REL |
| | | TWA | 50 ppm 240 mg/m3 | OSHA Z-1 |
| | | TWA | 25 ppm 120 mg/m3 | OSHA P0 |
| | | PEL | 20 ppm 97 mg/m3 | CAL PEL |
| sodium iodide | 7681-82-5 | TWA (Inhalable fraction and vapor) | 0,01 ppm (iodine) | ACGIH |

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 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 : 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.

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Skin protection : No special protective equipment required.

Respiratory protection : No personal respiratory protective equipment normally required.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid
Color : dark brown
Odor : slight
pH : 1,75, (100 %)
Flash point : closed cupNot applicable
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) : Not applicable
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
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

Reactivity : No dangerous reaction known under conditions of normal use.
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

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Metals
Organic materials

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Carbon oxides
Nitrogen oxides (NO_x)
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 : Harmful if inhaled. May cause nose, throat, and lung irritation.
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

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

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

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Product

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| Acute oral toxicity | : Acute toxicity estimate : > 5.000 mg/kg |
| Acute inhalation toxicity | : 4 h Acute toxicity estimate : 4,38 mg/l Test atmosphere: dust/mist |
| Acute dermal toxicity | : Acute toxicity estimate : > 5.000 mg/kg |
| Skin corrosion/irritation | : Corrosive |
| 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

Ecotoxicity

Environmental Effects : Harmful to aquatic life.

Environmental Effects : This product has no known ecotoxicological effects.

Product

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|-----------------------------------------------------|-------------------------------------------------|
| Toxicity to fish | : No data available |
| Toxicity to daphnia and other aquatic invertebrates | : 48 h LC50 Daphnia magna (Water flea): 22 mg/l |
| Toxicity to algae | : No data available |

Components

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|------------------|---------------------------------------------------------------------------------------------------------------------------|
| Toxicity to fish | : iodine 96 h LC50 Oncorhynchus mykiss (rainbow trout): 1,67 mg/l 2-butoxyethanol 96 h LC50 Fish: > 100 mg/l |
|------------------|---------------------------------------------------------------------------------------------------------------------------|

Components

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|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toxicity to algae | : Phosphoric acid 72 h EC50 Desmodesmus subspicatus (green algae): > 100 mg/l iodine 72 h EC50 Desmodesmus subspicatus (green algae): 0,13 mg/l 2-butoxyethanol 72 h EC50 Aquatic Plant: 911 mg/l |
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Persistence and degradability

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Not applicable - Biocide

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 : Do not contaminate storm water drains, natural waterways or soil with chemical or used container. 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.

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

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: generally applicable for transport in Mexico.

UN number : 1805
Description of the goods : PHOSPHORIC ACID, LIQUID
Class : 8
Packing group : III
Hazchem Code : E1
Environmentally hazardous : yes

Air transport (IATA)

Contact Regulatory for air freight eligibility

Sea transport (IMDG/IMO)

UN number : 1805
Proper shipping name : PHOSPHORIC ACID SOLUTION
Class : 8
Packing group : III
Marine pollutant : no

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SECTION 15. REGULATORY INFORMATION

Mexico: Our SDS meets the requirements established by the Official Mexican Regulation NOM-018-STPS-2015, Harmonized System for the identification and communication of hazards and risks by dangerous chemical substances in work centers.

SECTION 16. OTHER INFORMATION

Revision Date : 15.02.2023
Version : 1.2
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 MSDS.

The information provided in this Material Safety Data Sheet is considered correct but is not thorough and is intended for guidance only, which is based on current knowledge of the substance or mixture and is applicable to the appropriate safety precautions for the product.