

KEYSTONE MULTI-QUAT LIQUID SANITIZER

Section: 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : KEYSTONE MULTI-QUAT LIQUID SANITIZER

Other means of identification : Not applicable.

Recommended use : Sanitizer

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.2 % - 0.52 %

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 : 03/04/2016

Section: 2. HAZARDS IDENTIFICATION

GHS Classification

Product AS SOLD

Skin corrosion : Category 1A

Serious eye damage : Category 1

Product AT USE DILUTION

Not a hazardous substance or mixture.

GHS Label element

Product AS SOLD

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): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. 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:

SAFETY DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

Store locked up.

Disposal:

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

Product AT USE DILUTION

Precautionary Statements

Prevention:

Wash hands thoroughly after handling.

Response:

Get medical advice/ attention if you feel unwell.

Storage:

Store in accordance with local regulations.

Product AS SOLD

Other hazards

: None known.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD

Pure substance/mixture : Mixture

| Chemical Name | CAS-No. | Concentration: (%) |
|--|------------|--------------------|
| Benzalkonium chloride | 68424-85-1 | 1 - 5 |
| Octyl decyl dimethyl ammonium chloride | 32426-11-2 | 1 - 5 |
| ethanol | 64-17-5 | 1 - 5 |
| Didecyl Dimethyl Ammonium Chloride | 7173-51-5 | 1 - 5 |
| Diocetyl dimethyl ammonium chloride | 5538-94-3 | 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 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.
- Most important symptoms and effects, both acute and delayed : See Section 11 for more detailed information on health effects and symptoms.

SAFETY DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

Product AT USE DILUTION

- 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. FIREFIGHTING 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.
- Specific hazards during firefighting : Not flammable or combustible.
- 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 : 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.
- Risk of explosion. : Not available.

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 : Refer to protective measures listed in sections 7 and 8.

SAFETY DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

emergency procedures

- Environmental precautions : No special environmental precautions required.
- 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

Product AS SOLD

- Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Use only with adequate ventilation. Wash hands thoroughly after handling.
- Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.
- Storage temperature : 0 °C to 50 °C

Product AT USE DILUTION

- Advice on safe handling : Wash hands after handling. 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

Product AS SOLD

Components with workplace control parameters

| Components | CAS-No. | Form of exposure | Permissible concentration | Basis |
|------------|---------|------------------|--------------------------------------|------------|
| ethanol | 64-17-5 | TWA | 1,000 ppm 1,880 mg/m ³ | CAD AB OEL |
| | | STEL | 1,000 ppm | CAD BC OEL |
| | | VME | 1,000 ppm 1,880 mg/m ³ | OEL (QUE) |
| ethanol | 64-17-5 | TWA | 1,000 ppm 1,900 mg/m ³ | NIOSH REL |
| | | TWA | 1,000 ppm 1,900 mg/m ³ | OSHA Z1 |

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

Personal protective equipment

- Eye protection : Wear eye protection/face protection.
- 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 DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

| | |
|------------------------|--|
| | 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. |
| Skin protection | : No special protective equipment required. |
| Respiratory protection | : No personal respiratory protective equipment normally required. |

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

| | Product AS SOLD | Product AT USE DILUTION |
|---|---------------------|-------------------------|
| Appearance | : liquid | liquid |
| Colour | : red | light pink |
| Odour | : Disinfectants | slight |
| pH | : 7.7, 100 % | 7.04 |
| Flash point | : Not applicable. | |
| Odour 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 | |
| Vapour pressure | : no data available | |
| Relative vapour density | : no data available | |
| Relative density | : 0.998 | |
| Water solubility | : soluble | |
| Solubility in other solvents | : no data available | |
| Partition coefficient: n-octanol/water | : no data available | |
| Auto-ignition temperature | : no data available | |

SAFETY DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

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

Product AS SOLD

Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.
Conditions to avoid : None known.
Incompatible materials : None known.
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

Product AS SOLD

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.

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

SAFETY DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

Product AS SOLD

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

Product AS SOLD

Product

Acute oral toxicity : LD50 rat: > 2,000 mg/kg
Test substance: Product
Acute dermal toxicity : LD50 rabbit: > 5,000 mg/kg
Test substance: Product
Skin corrosion/irritation : Corrosive
Test substance:Product
Serious eye damage/eye irritation : Corrosive
Test substance: Product
Respiratory or skin sensitization : Not a skin sensitizer.
Test substance: Product
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

Product AS SOLD

Ecotoxicity

Environmental Effects : Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Product

Toxicity to fish : no data available
Toxicity to daphnia and other aquatic invertebrates : no data available

SAFETY DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

Toxicity to algae : no data available

Components

Toxicity to fish : Octyl decyl dimethyl ammonium chloride
96 h LC50 Fish: 1 mg/l

ethanol
96 h LC50 Pimephales promelas (fathead minnow): > 100 mg/l

Didecyl Dimethyl Ammonium Chloride
96 h LC50 Fish: 1 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Benzalkonium chloride
48 h EC50 Daphnia magna (Water flea): 0.016 mg/l

Diocetyl dimethyl ammonium chloride
48 h EC50 Daphnia: 0.1 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 : Do not contaminate ponds, waterways or ditches 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.

Product AT USE DILUTION

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

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.

SAFETY DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

Land transport (TDG)

Not dangerous goods

Sea transport (IMDG/IMO)

UN number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class : 9
Packing group : III
Marine pollutant : Yes

Section: 15. REGULATORY INFORMATION

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.

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 :

not determined

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 :

not determined

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 :

On the inventory, or in compliance with the inventory

Section: 16. OTHER INFORMATION

Product AS SOLD

SAFETY DATA SHEET

KEYSTONE MULTI-QUAT LIQUID SANITIZER

NFPA:



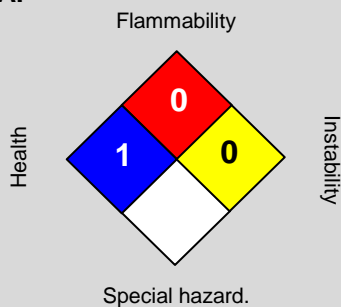
HMIS III:

| | |
|------------------------|----------|
| HEALTH | 3 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

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

Product AT USE DILUTION

NFPA:



HMIS III:

| | |
|------------------------|----------|
| HEALTH | 1 |
| FLAMMABILITY | 0 |
| PHYSICAL HAZARD | 0 |

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

Issuing date : 03/04/2016
version : 1.0
Prepared by : Regulatory Affairs 1-800-352-5326

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.