

QUATERNARY DISINFECTANT CLEANER
SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : QUATERNARY DISINFECTANT CLEANER

Other means of identification : Not applicable

Recommended use : Disinfectant

Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.39 % - 1.54 %

Company : Ecolab Inc.
1 Ecolab Place
St. Paul, Minnesota USA 55102
1-800-352-5326

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

Issuing date : 07/02/2019

SECTION 2. HAZARDS IDENTIFICATION
GHS Classification
Product AS SOLD

Flammable liquids : Category 3

Acute toxicity (Oral) : Category 4

Acute toxicity (Dermal) : Category 4

Skin corrosion : Category 1A

Serious eye damage : Category 1

Product AT USE DILUTION

Acute toxicity (Dermal) : Category 4

Eye irritation : Category 2B

GHS label elements
Product AS SOLD

Hazard pictograms :



Signal Word : Danger

Hazard Statements : Flammable liquid and vapor.
Harmful if swallowed or in contact with skin.
Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear

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protective gloves/ protective clothing/ eye protection/ face protection.

Response:

IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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/doctor. Wash contaminated clothing before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

Store in a well-ventilated place. Keep cool. Store locked up.

Disposal:

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

Product AT USE DILUTION

Hazard pictograms :



Signal Word :

Caution

Hazard Statements :

Harmful in contact with skin.
Causes eye irritation.

Precautionary Statements :

Prevention:

Wash skin thoroughly after handling.

Response:

IF ON SKIN: Wash with plenty of soap and water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER/doctor if you feel unwell. If eye irritation persists: Get medical advice/ attention. Wash contaminated clothing before reuse.

Disposal:

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

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 (%)
n-alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride	68424-85-1	8.68
Octyl decyl dimethyl ammonium chloride	32426-11-2	6.51
Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.906
Diocetyl dimethyl ammonium chloride	5538-94-3	2.604
ethanol	64-17-5	4.34
Alcohols, C9-11, ethoxylated	68439-46-3	5 - 10
ethylenediamine tetraacetate	64-02-8	1 - 5
disodium metasilicate	6834-92-0	1 - 5

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Product AT USE DILUTION

Chemical name	CAS-No.	Concentration (%)
n-alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride	68424-85-1	0.134
Octyl decyl dimethyl ammonium chloride	32426-11-2	0.1
Didecyl Dimethyl Ammonium Chloride	7173-51-5	0.06
Diocetyl dimethyl ammonium chloride	5538-94-3	0.04
Alcohols, C9-11, ethoxylated	68439-46-3	0 - 0.1

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.

Product AT USE DILUTION

- In case of eye contact : Rinse with plenty of water.
- 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 if irritation develops and persists.
- If swallowed : Rinse mouth. Get medical attention if symptoms occur.
- If inhaled : Get medical attention if symptoms occur.

SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD

- 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 fire : Fire Hazard

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fighting	Keep away from heat and sources of ignition. Flash back possible over considerable distance. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
Hazardous combustion products	: Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx) Sulfur oxides
Special protective equipment for fire-fighters	: 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 do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

Personal precautions, protective equipment and emergency procedures	: Ensure adequate ventilation. Remove all sources of ignition. 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	: 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). 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	: 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). 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/ vapors/ spray. Use only with adequate ventilation. Keep away from fire, sparks and heated surfaces. Take necessary action to avoid static electricity discharge (which might
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cause ignition of organic vapors). Wash hands thoroughly after handling.

Conditions for safe storage : Keep away from heat and sources of ignition. Keep in a cool, well-ventilated place. Do not store near acids. 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 50 °C

Product AT USE DILUTION

Advice on safe handling : Wash hands thoroughly after handling.

Conditions for safe storage : Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD

Ingredients with workplace control parameters

Components	CAS-No.	Form of exposure	Permissible concentration	Basis
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 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.

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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.

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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
Color	: clear, purple	purple
Odor	: odorless	Disinfectants
pH	: 13.0, (100 %)	9.3 - 10.3
Flash point	: 58 °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	: 0.99 - 1.01	
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

Product AS SOLD

Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : Stable under normal conditions.
Possibility of hazardous : No dangerous reaction known under conditions of normal use.

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reactions

- Conditions to avoid : Heat, flames and sparks.
- Incompatible materials : Acids
- Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:
Carbon oxides
Nitrogen oxides (NOx)
Sulfur oxides

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 : Harmful if swallowed. 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 : Causes eye irritation.
- Skin : Harmful in contact with skin.
- 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

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 : Redness, Irritation
- Skin contact : No information available.
- Ingestion : No symptoms known or expected.

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Inhalation : No symptoms known or expected.

Toxicity

Product AS SOLD

Product

Acute oral toxicity : Acute toxicity estimate : 1,282 mg/kg
Acute inhalation toxicity : No data available
Acute dermal toxicity : Acute toxicity estimate : > 1,000 mg/kg
Skin corrosion/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

Components

Acute inhalation toxicity : n-alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride
4 h LC50 Rat: 0.054 mg/l
Test atmosphere: dust/mist

Octyl decyl dimethyl ammonium chloride
4 h LC50 Rat: 0.07 mg/l
Test atmosphere: dust/mist

Didecyl Dimethyl Ammonium Chloride
4 h LC50 Rat: 0.07 mg/l
Test atmosphere: dust/mist

Dioctyl dimethyl ammonium chloride
4 h LC50 Rat: 0.07 mg/l
Test atmosphere: dust/mist

ethanol
4 h LC50 Rat: 117 mg/l
Test atmosphere: vapor

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD

Ecotoxicity

Environmental Effects : This product has no known ecotoxicological effects.

Product

Toxicity to fish : No data available
Toxicity to daphnia and other : No data available

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aquatic invertebrates

Toxicity to algae : No data available

Components

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

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

Diocetyl dimethyl ammonium chloride
96 h LC50 Oncorhynchus mykiss (rainbow trout): 0.35 mg/l

ethanol
96 h LC50 Pimephales promelas: > 100 mg/l

Alcohols, C9-11, ethoxylated
96 h LC50 Oncorhynchus mykiss (rainbow trout): 5 mg/l

ethylenediamine tetraacetate
96 h LC50 Fish: 121 mg/l

disodium metasilicate
96 h LC50 Fish: 210 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : n-alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride
48 h EC50 Daphnia magna (Water flea): 0.016 mg/l

Diocetyl dimethyl ammonium chloride
96 h LC50 Americamysis bahia: 0.073 mg/l

Alcohols, C9-11, ethoxylated
48 h EC50 Daphnia magna (Water flea): 2.5 mg/l

Components

Toxicity to algae : Diocetyl dimethyl ammonium chloride
72 h EC50 Pseudokirchneriella subcapitata (algae): 0.122 mg/l

Alcohols, C9-11, ethoxylated
96 h EC50 Pseudokirchneriella subcapitata (algae): 1.4 mg/l

Persistence and degradability

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Not applicable - Biocide

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Not applicable - Biocide

Bioaccumulative potential

No data available

Mobility in soil

No data available

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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.
- RCRA - Resource Conservation and Recovery Authorization Act Hazardous waste : D002 (Corrosive)

Product AT USE DILUTION

- 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.

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.

Land transport (DOT)

- UN number : 1903
- Description of the goods : Disinfectant, liquid, corrosive, n.o.s.
(quaternary ammonium compound)
- Class : 8
- Packing group : III
- Environmentally hazardous : no

Sea transport (IMDG/IMO)

- UN number : 1903
- Description of the goods : DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
(quaternary ammonium compound)
- Class : 8
- Packing group : III
- Marine pollutant : no

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QUATERNARY DISINFECTANT CLEANER

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPA Registration number : 6836-78-1677

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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.

California Cleaning Product Right to Know Act of 2017 (SB 258)

This regulation applies to this product.

Chemical Name	CAS-No.	Function	List(s)
water	7732-18-5	Diluent	Not Applicable
Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides	68424-95-3	Biocide	Not Applicable
n-alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride	68424-85-1	Biocide	Not Applicable
Alcohols, C9-11, ethoxylated	68439-46-3	Cleaning Agent	Not Applicable
ethanol	64-17-5	Cleaning Agent	Not Applicable
ethylenediamine tetraacetate	64-02-8	Stabilizer	Not Applicable
Dioctyl dimethyl ammonium chloride	5538-94-3	Biocide	Not Applicable
disodium metasilicate	6834-92-0	Stabilizer	Not Applicable
Colorant	Withheld	Dye	Not Applicable
Colorant	Withheld	Dye	Not Applicable

*refer to ecolab.com/sds for electronic links to designated lists

The ingredients of this product are reported in the following inventories:

Switzerland. New notified substances and declared preparations :
not determined

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United States TSCA Inventory :

All substances listed as active on the TSCA inventory

Canadian Domestic Substances List (DSL) :

All components of this product are on the Canadian DSL

Australia Inventory of Chemical Substances (AICS) :

not determined

New Zealand. Inventory of Chemical Substances :

not determined

Japan. ENCS - Existing and New Chemical Substances Inventory :

not determined

Korea. Korean Existing Chemicals Inventory (KECI) :

not determined

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :

not determined

China. Inventory of Existing Chemical Substances in China (IECSC) :

not determined

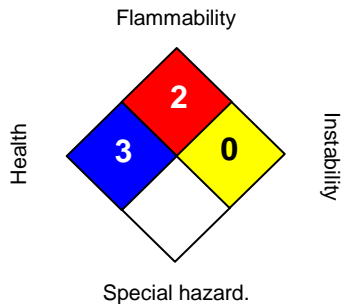
Taiwan Chemical Substance Inventory (TCSI) :

not determined

SECTION 16. OTHER INFORMATION

Product AS SOLD

NFPA:



HMIS III:

HEALTH	3
FLAMMABILITY	2
PHYSICAL HAZARD	0

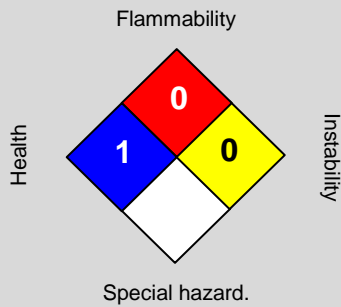
0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Product AT USE DILUTION

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NFPA:



HMIS III:

HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

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

Issuing date : 07/02/2019
Version : 2.0
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 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.