

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : A-456 II DISINFECTANT CLEANER  
 Other means of identification : Not applicable  
 Recommended use : Cleaner and disinfectant  
 Restrictions on use : Reserved for industrial and professional use.

Product dilution information : 0.39 % - 1.56 %

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 : 06/19/2019

**SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification**

**Product AS SOLD**

Acute toxicity (Oral) : Category 4  
 Acute toxicity (Dermal) : Category 4  
 Skin corrosion/irritation : Category 1A  
 Serious eye damage : Category 1

**Product AT USE DILUTION**

Acute toxicity (Dermal) : Category 4  
 Serious eye damage/eye irritation : Category 2B

**GHS label elements**

**Product AS SOLD**

Hazard pictograms : 

Signal Word : Danger

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

Precautionary Statements : **Prevention:**  
 Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear eye protection/ face protection.  
**Response:**  
 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. 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 victim to fresh air and keep at rest in a position

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comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician. 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.

**Storage:**

Store locked up.

**Disposal:**

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

### Product AT USE DILUTION

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 (%)
Octyl decyl dimethyl ammonium chloride	32426-11-2	6.51
Diocetyl dimethyl ammonium chloride	5538-94-3	2.604
Didecyl Dimethyl Ammonium Chloride	7173-51-5	3.906
n-alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride	68424-85-1	8.68
Alcohols, C9-11, ethoxylated	68439-46-3	5 - 10
ethanol	64-17-5	1 - 5
ethylenediamine tetraacetate	64-02-8	1 - 5
disodium metasilicate	6834-92-0	1 - 5
Fragrance	Proprietary Ingredient	0.1 - 1

### Product AT USE DILUTION

Chemical name	CAS-No.	Concentration (%)
Octyl decyl dimethyl ammonium chloride	32426-11-2	0.1016
Diocetyl dimethyl ammonium chloride	5538-94-3	0.0406
Didecyl Dimethyl Ammonium Chloride	7173-51-5	0.0609
n-alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride	68424-85-1	0.1354
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.

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	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	: 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)
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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#### 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 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). 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/ vapors/ spray. Use only with adequate ventilation. Wash hands thoroughly after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Conditions for safe storage : Do not store near acids. 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 thoroughly after handling. 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 out of reach of children. Store in suitable labeled containers.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Product AS SOLD

##### Ingredients with workplace control parameters

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Components	CAS-No.	Form of exposure	Permissible concentration	Basis
ethanol	64-17-5	TWA	1,000 ppm 1,900 mg/m <sup>3</sup>	NIOSH REL
		TWA	1,000 ppm 1,900 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 : Wear eye protection/ face protection.

Hand protection : Wear the following personal protective equipment:  
Rubber gloves  
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.

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	: purple	purple
Odor	: Disinfectants	Disinfectants
pH	: 12.0 - 13.5, (100 %)	10.54 - 10.93
Flash point	: Not applicable	
Odor Threshold	: No data available	

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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	: soluble
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 reactions	: No dangerous reaction known under conditions of normal use.
Conditions to avoid	: None known.
Incompatible materials	: Acids
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: Carbon oxides Nitrogen oxides (NOx)

### 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.

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Skin : Causes severe skin burns. Harmful in contact with skin.  
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.  
Inhalation : No symptoms known or expected.

#### Toxicity

##### Product AS SOLD

###### Product

Acute oral toxicity : Acute toxicity estimate : 1,316 mg/kg  
Acute inhalation toxicity : No data available  
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 : No data available  
Reproductive effects : No data available  
Germ cell mutagenicity : No data available

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

Diocetyl 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

n-alkyl (C14 50%; C12 40%; C16 10%) dimethyl benzyl ammonium chloride  
4 h LC50 Rat: 0.054 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 aquatic invertebrates : No data available  
Toxicity to algae : No data available

#### Components

Toxicity to fish : Octyl decyl 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

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

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

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



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

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

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

### Components

Toxicity to algae : Dioctyl 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

#### Product AS SOLD

Not applicable - Biocide

#### Product AT USE DILUTION

Not applicable - Biocide

### 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.

RCRA - Resource Conservation and Recovery : D002 (Corrosive)

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Authorization Act Hazardous waste

### 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 : 1760  
Description of the goods : Corrosive liquids, n.o.s.  
(quaternary ammonium compound)  
Class : 8  
Packing group : III  
Environmentally hazardous : no

### Sea transport (IMDG/IMO)

UN number : 1760  
Description of the goods : CORROSIVE LIQUID, N.O.S.  
(quaternary ammonium compound)  
Class : 8  
Packing group : III  
Marine pollutant : yes

## 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 : Acute toxicity (any route of exposure)  
Serious eye damage or eye irritation

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**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
ethylenediamine tetraacetate	64-02-8	Cleaning Agent	Not Applicable
Dioctyl dimethyl ammonium chloride	5538-94-3	Biocide	Not Applicable
disodium metasilicate	6834-92-0	Cleaning Agent	Not Applicable
Fragrance Ingredient(s)	Not Available	Fragrance	Not Applicable
Limonene	5989-27-5	Fragrance	FRA
Colorant	Withheld	Dye	Not Applicable
2-methylpentane-2,4-diol	107-41-5	Fragrance	Not Applicable
Coumarin	91-64-5	Fragrance	FRA
Colorant	Withheld	Dye	Not Applicable

\*refer to [ecolab.com/sds](http://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

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

**Japan. ENCS - Existing and New Chemical Substances Inventory :**  
not determined

**Korea. Korean Existing Chemicals Inventory (KECI) :**  
On the inventory, or in compliance with the inventory

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Philippines Inventory of Chemicals and Chemical Substances (PICCS) :  
not determined

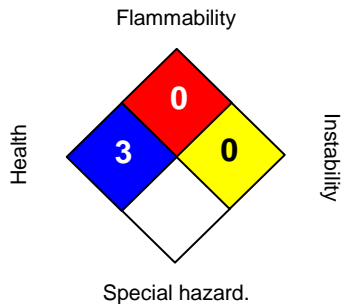
China. Inventory of Existing Chemical Substances in China (IECSC) :  
not determined

Taiwan Chemical Substance Inventory (TCSI) :  
not determined

### SECTION 16. OTHER INFORMATION

#### Product AS SOLD

##### NFPA:



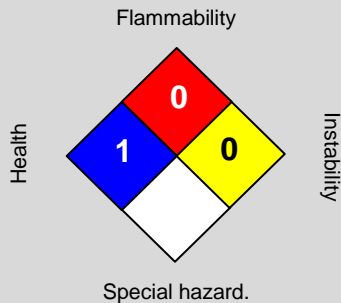
##### HMIS III:

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

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

#### Product AT USE DILUTION

##### NFPA:



##### HMIS III:

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

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

Issuing date : 06/19/2019  
Version : 1.4  
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.