

# SAFETY DATA SHEET



## UMONIUM 38 DECON SOLUTION

Version  
1.7

Revision Date:  
06-23-2020

Date of last issue: 04-17-2019  
Date of first issue: 12-03-2015

### SECTION 1. IDENTIFICATION

Product name : UMONIUM 38 DECON SOLUTION

Product code : 07007833001

#### Manufacturer or supplier's details

Company name of supplier : Roche Diagnostics

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Address : 9115 Hague Road  
46250 Indianapolis IN  
USA

Telephone : 1-800-428-5074

Emergency telephone

In case of emergencies: : CHEMTREC

1-800-424-9300 (U.S. or Canada)

1-703-527-3887 (International)

#### Recommended use of the chemical and restrictions on use

Restrictions on use : For professional users only.

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### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with 29 CFR 1910.1200

Flammable liquids : Category 3

Skin irritation : Category 2

Eye irritation : Category 2A

#### GHS label elements

Hazard pictograms :



Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

Precautionary Statements : **Prevention:**  
P210 Keep away from heat/sparks/open flames/hot surfaces.  
No smoking.  
P233 Keep container tightly closed.  
P240 Ground/bond container and receiving equipment.

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P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

**Response:**

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 If skin irritation occurs: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

P403 + P235 Store in a well-ventilated place. Keep cool.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**

None known.

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

| Chemical name   | CAS-No.    | Concentration (% w/w) |
|---|------------|-----------------------|
| 2-Propanol  | 67-63-0    | >= 5 - < 10           |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides | 68424-85-1 | >= 5 - < 10           |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-                     | 5989-27-5  | >= 0.1 - < 1          |
| 6-Octenal, 3,7-dimethyl-  | 106-23-0   | >= 0.1 - < 1          |
| Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-                            | 80-56-8    | >= 0.1 - < 1          |
| 2,6-Octadienal, 3,7-dimethyl-   | 5392-40-5  | >= 0.1 - < 1          |

Actual concentration is withheld as a trade secret

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**SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.



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- Do not leave the victim unattended.
- If inhaled : Move to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.  
If on skin, rinse well with water.  
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.  
Causes serious eye irritation.
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

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**SECTION 5. FIRE-FIGHTING MEASURES**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides
- Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.



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Methods and materials for containment and cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

**SECTION 7. HANDLING AND STORAGE**

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapors/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.  
Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions : See label, package insert or internal guidelines

Further information on storage stability : No decomposition if stored and applied as directed.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Ingredients with workplace control parameters**

| Components  | CAS-No.   | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis     |
|---|-----------|-------------------------------|--|-----------|
| 2-Propanol  | 67-63-0   | TWA                           | 200 ppm  | ACGIH     |
|   |           | STEL                          | 400 ppm  | ACGIH     |
|   |           | TWA                           | 400 ppm<br>980 mg/m3                           | NIOSH REL |
|   |           | ST                            | 500 ppm<br>1,225 mg/m3                         | NIOSH REL |
|   |           | TWA                           | 400 ppm<br>980 mg/m3                           | OSHA Z-1  |
|   |           | TWA                           | 400 ppm<br>980 mg/m3                           | OSHA P0   |
|   |           | STEL                          | 500 ppm<br>1,225 mg/m3                         | OSHA P0   |
| Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)- | 5989-27-5 | TWA                           | 30 ppm   | US WEEL   |
| Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-        | 80-56-8   | TWA                           | 20 ppm   | ACGIH     |
| 2,6-Octadienal, 3,7-dimethyl-                     | 5392-40-5 | TWA (Inhalable fraction)      | 5 ppm  | ACGIH     |



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|  |  |            |
|--|--|------------|
|  |  | and vapor) |
|--|--|------------|

**Biological occupational exposure limits**

| Components | CAS-No. | Control parameters | Biological specimen | Sam-pling time                   | Permissible concentra-tion | Basis     |
|------------|---------|--------------------|---------------------|----------------------------------|----------------------------|-----------|
| 2-Propanol | 67-63-0 | Acetone            | Urine               | End of shift at end of work-week | 40 mg/l                    | ACGIH BEI |

**Predicted No Effect Concentration (PNEC):**

| Substance name  | Environmental Compartment | Value        |
|---|---------------------------|--------------|
| 2-Propanol  | Fresh water               | 140.9 mg/l   |
|   | Sea water                 | 140.9 mg/l   |
|   | Fresh water sediment      | 552 mg/kg    |
|   | Sea sediment              | 552 mg/kg    |
|   | Soil                      | 28 mg/kg     |
| Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides | Fresh water               | 0.0009 mg/l  |
|   | Sea water                 | 0.00009 mg/l |
|   | Fresh water sediment      | 12.27 mg/kg  |
|   | Sea sediment              | 13.09 mg/kg  |
|   | Soil                      | 7.0 mg/kg    |
|   | Sewage treatment plant    | 0.4 mg/l     |

**Engineering measures** : No data available

**Personal protective equipment**

Hand protection

In case of full contact:

Material : Nitrile rubber  
 Break through time : > 480 min  
 Glove thickness : 0.4 mm

In case of contact through splashing:

Material : Chloroprene  
 Break through time : > 120 min  
 Glove thickness : 0.65 mm

Remarks : Wear appropriate protective gloves to prevent skin contact.  
 Replace torn or punctured gloves promptly.

Eye protection : Eye wash bottle with pure water  
 Tightly fitting safety goggles  
 Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Impervious clothing  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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Hygiene measures : When using do not eat or drink.  
When using do not smoke.  
Wash hands before breaks and at the end of workday.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : blue

Odor : characteristic

Odor Threshold : No data available

pH : 7

Melting point/range : No data available

Boiling point/boiling range : 199 °F / 93 °C

Flash point : 95.9 °F / 35.5 °C

Evaporation rate : No data available

Flammability (solid, gas) : Does not sustain combustion.

Flammability (liquids) : Does not sustain combustion.

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapor pressure : < 5 hPa

Relative vapor density : No data available

Relative density : No data available

Solubility(ies)  
Water solubility : completely miscible

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : Pow: 0.48

Autoignition temperature : No data available

Decomposition temperature : No data available



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Viscosity  
Viscosity, kinematic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

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### 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 : No decomposition if stored and applied as directed.

Conditions to avoid : Exposure to sunlight.  
Direct sources of heat.

Incompatible materials : Strong acids and strong bases

Hazardous decomposition products : In case of fire hazardous decomposition products may be produced such as:  
Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)

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### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Not classified based on available information.

#### Product:

Acute oral toxicity : LD50 Oral (Rat): 5,840 mg/kg

Acute inhalation toxicity : Acute toxicity estimate: > 200 mg/l  
Exposure time: 4 h  
Test atmosphere: vapor  
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

#### Components:

##### 2-Propanol:

Acute oral toxicity : LD50 Oral (Rat): 4,570 mg/kg  
LD50 Oral (Mouse): 3,600 mg/kg  
LD50 Oral (Rabbit): 6,410 mg/kg

Acute inhalation toxicity : LC50 (Rat): 30 mg/l, 16000 ppm  
Exposure time: 4 h

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Test atmosphere: vapor

LC50 (Mouse): 53 mg/l  
Test atmosphere: vapor

Acute dermal toxicity : LD50 Dermal (Rabbit): 13,400 mg/kg

### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Acute oral toxicity : LD50 Oral (Rat): 344 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat): 3,340 mg/kg

### **Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-:**

Acute oral toxicity : LD50 Oral (Rat): 4,400 mg/kg

LD50 Oral (Mouse): 5,600 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg

### **6-Octenal, 3,7-dimethyl-:**

Acute oral toxicity : LD50 Oral (Rat): 2,420 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 2,500 mg/kg

### **Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:**

Acute oral toxicity : LD50 Oral (Rat): 3,700 mg/kg

Acute dermal toxicity : LD50 Dermal (Rabbit): > 5,000 mg/kg

### **2,6-Octadienal, 3,7-dimethyl-:**

Acute oral toxicity : LD50 Oral (Rat, male and female): 6,800 mg/kg

Acute dermal toxicity : LD50 Dermal (Rat, male and female): > 2,000 mg/kg

### **Skin corrosion/irritation**

Causes skin irritation.

### **Product:**

Result : Irritating to skin.

Remarks : May cause skin irritation in susceptible persons.

### **Components:**

#### **2-Propanol:**

Remarks : May cause skin irritation in susceptible persons.

### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Result : Causes burns.

Remarks : Extremely corrosive and destructive to tissue.



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Remarks : May cause skin irritation and/or dermatitis.

**6-Octenal, 3,7-dimethyl-:**Species : Rabbit  
Result : Irritating to skin.**Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:**Species : human skin  
Exposure time : 0.15 h  
Method : EPISKIN Human Skin Model Test  
Result : Irritating to skin.**2,6-Octadienal, 3,7-dimethyl-:**Species : Rabbit  
Result : Irritating to skin.**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Product:**

Result : Irritating to eyes.

Remarks : May cause irreversible eye damage.

**Components:****2-Propanol:**Result : Irritating to eyes.  
Remarks : May cause irreversible eye damage.**Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Remarks : May cause irreversible eye damage.

**Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-:**

Remarks : Vapors may cause irritation to the eyes, respiratory system and the skin.

**6-Octenal, 3,7-dimethyl-:**Species : Rabbit  
Result : No eye irritation**Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:**

Remarks : No data available

**2,6-Octadienal, 3,7-dimethyl-:**

Remarks : Vapors may cause irritation to the eyes, respiratory system



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and the skin.

**Respiratory or skin sensitization**

**Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Product:**

Result : Does not cause skin sensitization.

**Components:**

**6-Octenal, 3,7-dimethyl-:**

Species : laboratory animal  
Result : May cause sensitization by skin contact.

**Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:**

Result : May cause sensitization by skin contact.

**2,6-Octadienal, 3,7-dimethyl-:**

Method : OECD Test Guideline 429  
Result : May cause sensitization by skin contact.

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

**2,6-Octadienal, 3,7-dimethyl-:**

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test  
Test system: Chinese hamster ovary cells  
Result: negative

**Carcinogenicity**

Not classified based on available information.

**Components:**

**2,6-Octadienal, 3,7-dimethyl-:**

Remarks : No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**IARC** No ingredient 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 component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is

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identified as a known or anticipated carcinogen by NTP.

### **Reproductive toxicity**

Not classified based on available information.

### **STOT-single exposure**

Not classified based on available information.

### **Components:**

#### **2-Propanol:**

Assessment : May cause drowsiness or dizziness.

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **6-Octenal, 3,7-dimethyl-:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **2,6-Octadienal, 3,7-dimethyl-:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

### **STOT-repeated exposure**

Not classified based on available information.

### **Components:**

#### **2-Propanol:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **6-Octenal, 3,7-dimethyl-:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

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### 2,6-Octadienal, 3,7-dimethyl-:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

### Aspiration toxicity

Not classified based on available information.

### Components:

#### Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-:

No data available

#### Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:

May be fatal if swallowed and enters airways.

### Further information

### Components:

#### Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:

Remarks : Solvents may degrease the skin.

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to fish : LC50 (Fish): 13.8 mg/l

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.39 mg/l  
Exposure time: 48 h  
Method: OECD Test Guideline 202

Toxicity to fish (Chronic toxicity) : Remarks: No toxicity at the limit of solubility.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: No toxicity at the limit of solubility.

### Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : No toxicity at the limit of solubility.

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

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### Components:

#### **2-Propanol:**

- Toxicity to fish : LC0 (Oncorhynchus mykiss (rainbow trout)): 10,000 mg/l  
Method: OECD Test Guideline 203
- LC50 (Oncorhynchus mykiss (rainbow trout)): 12,250 mg/l  
Method: OECD Test Guideline 203
- LC100 (Oncorhynchus mykiss (rainbow trout)): 15,000 mg/l  
Method: OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 9,500 mg/l  
Exposure time: 24 h
- Toxicity to algae/aquatic plants : EC0 (Scenedesmus quadricauda (Green algae)): 1,800 mg/l  
Exposure time: 168 h  
Method: OECD Test Guideline 201
- Toxicity to microorganisms : EC0 (Pseudomonas putida): 1,050 mg/l  
Exposure time: 16 h

#### **Ecotoxicology Assessment**

- Toxicity Data on Soil : Not expected to adsorb on soil.
- Other organisms relevant to the environment : No data available

#### **Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.016 mg/l  
Exposure time: 48 h
- Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 0.03 mg/l  
Exposure time: 72 h

#### **Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-:**

- Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0.7 mg/l  
Exposure time: 96 h
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.42 mg/l  
Exposure time: 48 h

#### **Ecotoxicology Assessment**

- Toxicity Data on Soil : Not expected to adsorb on soil.
- Other organisms relevant to the environment : No data available

#### **6-Octenal, 3,7-dimethyl-:**

- Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 22 mg/l  
Exposure time: 96 h

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Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 8.7 mg/l  
Exposure time: 48 h

Toxicity to algae/aquatic plants : IC50 (algae): 7.5 mg/l  
Exposure time: 72 h

### Ecotoxicology Assessment

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

### Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 0.28 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 41 mg/l  
Exposure time: 48 h

### Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

### 2,6-Octadienal, 3,7-dimethyl-:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 6.78 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: DIN 38412

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 6.8 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): 103.8 mg/l  
Exposure time: 72 h  
Test Type: static test

### Ecotoxicology Assessment

Toxicity Data on Soil : Not expected to adsorb on soil.

Other organisms relevant to the environment : No data available

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Biodegradability : Biodegradation: 81.1 %

**Components:****2-Propanol:**Biodegradability : Biodegradation: 99 %  
Exposure time: 11 d  
Method: OECD Test Guideline 302Biodegradation: 57 %  
Exposure time: 5 d  
Method: OECD Test Guideline 302**Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**

Biodegradability : Result: Biodegradable

**Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-:**Biodegradability : Biodegradation: ca. 70 %  
Exposure time: 14 d  
Method: OECD Test Guideline 301  
Remarks: Readily biodegradable, according to appropriate OECD test.**6-Octenal, 3,7-dimethyl-:**Biodegradability : Result: Readily biodegradable.  
Biodegradation: 60 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301**2,6-Octadienal, 3,7-dimethyl-:**Biodegradability : aerobic  
Result: Readily biodegradable.  
Biodegradation: 85 - 95 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301C**Bioaccumulative potential****Components:****2-Propanol:**Partition coefficient: n-  
octanol/water : log Pow: 0.05**Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:**Partition coefficient: n-  
octanol/water : Remarks: No data available

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Date of first issue: 12-03-2015**Cyclohexene, 1-methyl-4-(1-methylethenyl)-, (4R)-:**Partition coefficient: n-  
octanol/water : log Pow: 4.23**6-Octenal, 3,7-dimethyl-:**Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water,  
accumulation in organisms is not expected.Partition coefficient: n-  
octanol/water : log Pow: 3.92**Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:**Partition coefficient: n-  
octanol/water : log Pow: 4.834  
Method: OECD Test Guideline 107**2,6-Octadienal, 3,7-dimethyl-:**Partition coefficient: n-  
octanol/water : log Pow: ca. 2.9 (77 °F / 25 °C)  
Method: OECD Test Guideline 117**Mobility in soil**

No data available

**Other adverse effects****Product:**Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Pro-  
tection of Stratospheric Ozone - CAA Section 602 Class I  
Substances  
Remarks: This product neither contains, nor was manufac-  
tured with a Class I or Class II ODS as defined by the U.S.  
Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).**Components:****6-Octenal, 3,7-dimethyl-:**Additional ecological infor-  
mation : An environmental hazard cannot be excluded in the event of  
unprofessional handling or disposal.  
Toxic to aquatic life with long lasting effects.**Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-:**Additional ecological infor-  
mation : An environmental hazard cannot be excluded in the event of  
unprofessional handling or disposal.  
Very toxic to aquatic life with long lasting effects.

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**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**Waste from residues : Do not contaminate ponds, waterways or ditches with chemi-  
cal or used container.  
Send to a licensed waste management company.





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Can be disposed as waste water, when in compliance with local regulations.

Contaminated packaging : Empty remaining contents.  
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**

**International Regulations**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**Domestic regulation**

**49 CFR**

Not regulated as a dangerous good

**SECTION 15. REGULATORY INFORMATION**

**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 302 Extremely Hazardous Substances Threshold Planning Quantity**

| Components | CAS-No. | Component TPQ (lbs) |
|------------|---------|---------------------|
|------------|---------|---------------------|

**SARA 311/312 Hazards** : Flammable (gases, aerosols, liquids, or solids)  
Skin corrosion or irritation  
Serious eye damage or eye irritation

2-Propanol                      67-63-0                      >= 5 - < 10 %

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).



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This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermedi-ate or Final VOC's (40 CFR 60.489):

2-Propanol 67-63-0 >= 5 - < 10 %

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

**US State Regulations**

**Massachusetts Right To Know**

2-Propanol 67-63-0

**Pennsylvania Right To Know**

Water 7732-18-5

2-Propanol 67-63-0

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides 68424-85-1

**Maine Chemicals of High Concern**

**Vermont Chemicals of High Concern**

**Washington Chemicals of High Concern**

**California List of Hazardous Substances**

2-Propanol 67-63-0

**California Permissible Exposure Limits for Chemical Contaminants**

2-Propanol 67-63-0

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

- DSL : All components of this product are on the Canadian DSL
- AICS : On the inventory, or in compliance with the inventory
- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : Not in compliance with the inventory
- ISHL : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : Not in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- TCSI : On the inventory, or in compliance with the inventory
- TSCA : All substances listed as active on the TSCA inventory

# SAFETY DATA SHEET



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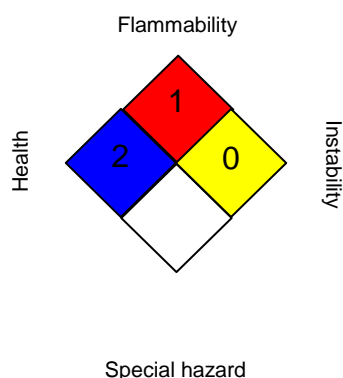
### TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

## SECTION 16. OTHER INFORMATION

### NFPA:



### HMIS® IV:

|                 |   |   |
|-----------------|---|---|
| HEALTH          | / | 2 |
| FLAMMABILITY    |   | 3 |
| PHYSICAL HAZARD |   | 0 |

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

### Full text of other abbreviations

|                 |   |   |
|-----------------|---|---|
| ACGIH           | : | USA. ACGIH Threshold Limit Values (TLV)   |
| ACGIH BEI       | : | ACGIH - Biological Exposure Indices (BEI)   |
| NIOSH REL       | : | USA. NIOSH Recommended Exposure Limits  |
| OSHA P0         | : | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000                             |
| OSHA Z-1        | : | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants          |
| US WEEL         | : | USA. Workplace Environmental Exposure Levels (WEEL)                                       |
| ACGIH / TWA     | : | 8-hour, time-weighted average   |
| ACGIH / STEL    | : | Short-term exposure limit   |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| NIOSH REL / ST  | : | STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday    |
| OSHA P0 / TWA   | : | 8-hour time weighted average  |
| OSHA P0 / STEL  | : | Short-term exposure limit   |
| OSHA Z-1 / TWA  | : | 8-hour time weighted average  |
| US WEEL / TWA   | : | 8-hr TWA  |

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC -



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International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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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.

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