1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Aliquat® 336
Product Number : 205613
Brand : Aldrich
Company : Sigma-Aldrich

3050 Spruce Street
SAINT LOUIS MO  63103
USA

Telephone : +18003255832
Fax : +18003255052
Emergency Phone # : (314) 776-6555

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Irritant

Target Organs
Kidney, Liver, Nerves.

HMIS Classification

Health hazard: 2
Chronic Health Hazard: *
Flammability: 1
Physical hazards: 0

NFPA Rating

Health hazard: 2
Fire: 1
Reactivity Hazard: 0

Potential Health Effects

Inhalation Toxic if inhaled. Causes respiratory tract irritation.
Skin May be harmful if absorbed through skin. Causes skin irritation.
Eyes Causes eye irritation.
Ingestion Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C_{25}H_{54}ClN

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trioctylmethylammonium chloride</td>
<td>63393-96-4</td>
<td>264-120-7</td>
<td>&gt;= 85 - &lt;= 95 %</td>
</tr>
<tr>
<td>Decan-1-ol</td>
<td>112-30-1</td>
<td>203-956-9</td>
<td>&lt;= 6 %</td>
</tr>
<tr>
<td>Octan-1-ol</td>
<td>111-87-5</td>
<td>203-917-6</td>
<td>&lt;= 5 %</td>
</tr>
</tbody>
</table>
4. FIRST AID MEASURES

**General advice**
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**
If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

**In case of skin contact**
Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**
Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**Methods and materials for containment and cleaning up**
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

**Precautions for safe handling**
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Normal measures for preventive fire protection.

**Conditions for safe storage**
Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octan-1-ol</td>
<td>111-87-5</td>
<td>TWA</td>
<td>50 ppm</td>
<td>2008-01-01</td>
<td>USA. Workplace Environmental Exposure Levels (WEEL)</td>
</tr>
</tbody>
</table>
Personal protective equipment

**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**
Handle with gloves.

**Eye protection**
Face shield and safety glasses

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

**Hygiene measures**
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance**
- Form: viscous, liquid
- Colour: amber

**Safety data**
- pH: no data available
- Melting point: no data available
- Boiling point: no data available
- Flash point: 132 °C (270 °F)
- Ignition temperature: no data available
- Lower explosion limit: no data available
- Upper explosion limit: no data available
- Density: 0.884 g/mL at 25 °C (77 °F)
- Water solubility: no data available

10. STABILITY AND REACTIVITY

**Chemical stability**
Stable under recommended storage conditions.

**Conditions to avoid**
no data available

**Materials to avoid**
Strong oxidizing agents

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas
Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
LD50 Oral - rat - > 3,200 mg/kg (Octan-1-ol)

**Skin corrosion/irritation**
no data available
Skin - rabbit - Skin irritation (Octan-1-ol)

**Serious eye damage/eye irritation**
Eyes: no data available

Eyes - rabbit - Moderate eye irritation (Octan-1-ol)

**Respiratory or skin sensitization**
no data available

no data available (Octan-1-ol)

**Germ cell mutagenicity**
no data available

Genotoxicity in vitro - Hamster - Lungs
SLN (Octan-1-ol)

**Carcinogenicity**

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

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**
no data available (Octan-1-ol)

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**
no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
no data available

**Aspiration hazard**
no data available

**Potential health effects**

<table>
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<th>Effect</th>
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**Signs and Symptoms of Exposure**

Central nervous system depression, Nausea, Headache, Vomiting, narcosis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (Octan-1-ol)

**Additional Information**

RTECS: UZ2997500

12. ECOLOGICAL INFORMATION

**Toxicity**
no data available

**Toxicity to fish**
mortality LOEC - Pimephales promelas (fathead minnow) - 1.19 mg/l - 7 d (Octan-1-ol)
mortality NOEC - Pimephales promelas (fathead minnow) - 1.19 mg/l - 7 d (Octan-1-ol)
LC50 - Oncorhynchus mykiss (rainbow trout) - 17.7 mg/l - 96 h (Octan-1-ol)
Toxicity to algae  
EC50 - Desmodesmus subspicatus (green algae) - 6.5 - 14.0 mg/l - 48 h (Octan-1-ol)

**Persistence and degradability**  
no data available

**Bioaccumulative potential**  
no data available

**Mobility in soil**  
no data available

**PBT and vPvB assessment**  
no data available

**Other adverse effects**  
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

no data available

### 13. DISPOSAL CONSIDERATIONS

**Product**  
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**  
Dispose of as unused product.

### 14. TRANSPORT INFORMATION

**DOT (US)**  
UN-Number: 2810  Class: 6.1  Packing group: III  
Proper shipping name: Toxic, liquids, organic, n.o.s. (Trioctylmethylammonium chloride)  
Marine pollutant: No  
Poison Inhalation Hazard: No

**IMDG**  
UN-Number: 2810  Class: 6.1  Packing group: III  
EMS-No: F-A, S-A  
Proper shipping name: TOXIC LIQUID, ORGANIC, N.O.S. (Trioctylmethylammonium chloride)  
Marine pollutant: No

**IATA**  
UN-Number: 2810  Class: 6.1  Packing group: III  
Proper shipping name: Toxic liquid, organic n.o.s. (Trioctylmethylammonium chloride)

### 15. REGULATORY INFORMATION

**OSHA Hazards**  
Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Irritant

**DSL Status**  
All components of this product are on the Canadian DSL list.

**SARA 302 Components**  
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**  
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.

**SARA 311/312 Hazards**  
Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**  
No components are subject to the Massachusetts Right to Know Act.
### Pennsylvania Right To Know Components

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### New Jersey Right To Know Components

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### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### 16. OTHER INFORMATION

**Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.