# **Material Safety Data Sheet**

Version 4.0 Revision Date 08/09/2010 Print Date 03/21/2011

# 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Aliquat<sup>®</sup> 336

Product Number : 205613 Brand : Aldrich

Company : Sigma-Aldrich

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USA

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# 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<sub>25</sub>H<sub>54</sub>CIN

CAS-No.	EC-No.	Index-No.	Concentration				
Trioctylmethylammonium chloride							
63393-96-4 264-120-7		=	>= 85 - <= 95 %				
Decan-1-ol							
112-30-1	203-956-9	-	<= 6 %				
Octan-1-ol							
111-87-5	203-917-6	-	<= 5 %				

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Water			
7732-18-5	231-791-2	-	<= 5 %

#### 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 vapour 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

Components	CAS-No.	Value	Control parameters	Update	Basis
Octan-1-ol	111-87-5	TWA	50 ppm	2008-01-01	USA. Workplace Environmental Exposure Levels (WEEL)

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### 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

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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

**Inhalation** Toxic if inhaled. Causes respiratory tract irritation.

**Ingestion** Toxic if swallowed.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

# 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)

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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.

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# Pennsylvania Right To Know Components

	CAS-No.	<b>Revision Date</b>	
Water	7732-18-5		
Trioctylmethylammonium chloride	63393-96-4		
Decan-1-ol	112-30-1	1989-08-11	
Octan-1-ol	111-87-5	1989-08-11	
New Jersey Right To Know Components			
	CAS-No.	<b>Revision Date</b>	
Water	7732-18-5		
Trioctylmethylammonium chloride	63393-96-4		
Decan-1-ol	112-30-1	1989-08-11	

# 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.

111-87-5

1989-08-11

# **16. OTHER INFORMATION**

### **Further information**

Octan-1-ol

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