

## Safety Data Sheet 3133536

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 03/20/2016 Version: 1.0

## **SECTION 1: Identification**

Identification

Product form : Mixture Product name : Aliquat 336 3133-5-36 Product code

Tricaprylylmethylammonium chloride; Trioctylmethylammonium chloride Synonyms

Other means of identification : MFCD00011862

Relevant identified uses of the substance or mixture and uses advised against 1.2.

Use of the substance/mixture : Laboratory chemicals

Manufacture of substances

Scientific research and development

#### 1.3. Details of the supplier of the safety data sheet

SynQuest Laboratories, Inc.

P.O. Box 309

Alachua, FL 32615 - United States of America

T (386) 462-0788 - F (386) 462-7097

info@synquestlabs.com - www.synquestlabs.com

#### **Emergency telephone number**

Emergency number : (844) 523-4086 (3E Company - Account 10069)

## SECTION 2: Hazard(s) identification

#### Classification of the substance or mixture

#### Classification (GHS-US)

Acute Tox. 3 (Oral) H301 - Toxic if swallowed

Skin Corr. 1B H314 - Causes severe skin burns and eye damage

Eye Dam. 1 H318 - Causes serious eye damage STOT SE 3 H335 - May cause respiratory irritation Aquatic Acute 1 H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects Aquatic Chronic 1

Full text of H-phrases: see section 16

#### **Label elements**

### **GHS-US** labeling

Hazard pictograms (GHS-US)

Precautionary statements (GHS-US)







GHS07



GHS05 GHS06

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) H301 - Toxic if swallowed

H314 - Causes severe skin burns and eve damage

H335 - May cause respiratory irritation

H410 - Very toxic to aquatic life with long lasting effects : P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash skin thoroughly after handling

P270 - Do not eat, drink or smoke when using this product P271 - Use only outdoors or in a well-ventilated area

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P301+P310 - If swallowed: Immediately call a poison center/doctor/... P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

skin with water/shower

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338 - If in eves: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/ physician

P321 - Specific treatment (see supplemental first aid instructions on this label)

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P330 - Rinse mouth

P363 - Wash contaminated clothing before reuse

P391 - Collect spillage

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

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

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## **SECTION 3: Composition/information on ingredients**

#### 3.1. Substance

Not applicable

## 3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Trioctylmethylammonium chloride	(CAS No) 63393-96-4	90 - 100	Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1-Octanol	(CAS No) 111-87-5	5 - 10	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Decyl alcohol	(CAS No) 112-30-1	5 - 10	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
tri-C8-10-alkyl amines	(CAS No) 68814-95-9	1 - 5	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-phrases: see section 16

#### **SECTION 4: First aid measures**

### 4.1. Description of first aid measures

First-aid measures general : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Move the affected personnel away from the contaminated area.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial

respiration. Get immediate medical advice/attention.

First-aid measures after skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Get immediate

medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid measures after ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth out with water. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : The most important known symptoms and effects are described in the labelling (see section

2.2) and/or in section 11.

Symptoms/injuries after inhalation : Material is destructive to tissue of the mucuous membranes and upper respiratory tract. Cough,

shortness of breath, headache, nausea.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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## **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

Suitable extinguishing media : Alcohol resistant foam. Carbon dioxide. Dry powder. Water spray. Use extinguishing media appropriate for surrounding fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Thermal decomposition generates: Carbon oxides. Hydrogen chloride. Nitrogen oxides.

Explosion hazard : Risk of explosion if heated under confinement. Use water spray or fog for cooling exposed

containers.

## 5.3. Advice for firefighters

Firefighting instructions : In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.

Protection during firefighting : Wear gas tight chemically protective clothing in combination with self contained breathing

apparatus. For further information refer to section 8: "Exposure controls/personal protection".

#### **SECTION 6: Accidental release measures**

## 6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate unnecessary personnel. Ensure adequate air ventilation. Do not breathe gas, fumes,

vapor or spray.

#### 6.1.1. For non-emergency personnel

Emergency procedures : Only qualified personnel equipped with suitable protective equipment may intervene.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground

level.

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

## 6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Dike for recovery or absorb with appropriate material.

Methods for cleaning up : Take up large spills with pump or vacuum and finish with dry chemical absorbent. Use

explosion-proof equipment. Take up small spills with dry chemical absorbent. Sweep or shovel

spills into appropriate container for disposal. Ventilate area.

Other information : For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

#### 6.4. Reference to other sections

No additional information available

## **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Ensure good

ventilation of the work station. Do not breathe fumes, mist, spray, vapors. Wear personal

protective equipment. Avoid contact with skin and eyes.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or

smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep container closed when not in use.

Incompatible materials : Refer to Section 10 on Incompatible Materials.

Storage area : Store in dry, cool, well-ventilated area.

#### SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

No additional information available

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8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers

should be available in the immediate vicinity of any potential exposure.

Hand protection : Protective gloves. 29 CFR 1910.138: Hand Protection.

Eye protection : Chemical goggles or safety glasses. Face shield. 29 CFR 1910.133: Eye and Face Protection.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation wear respiratory protection. 29 CFR 1910.134: Respiratory

Protection.

Other information : Safety shoes. 29 CFR 1910.136: Foot Protection.

## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : Mixture contains one or more component(s) which have the following colour(s):

Clear Colorless light yellow

Odor : There may be no odour warning properties, odour is subjective and inadequate to warn of

overexposure.

Mixture contains one or more component(s) which have the following odour(s):

Sweet orange-rose orange flowers

Odor threshold : No data available pH : No data available Melting point : No data available Freezing point : No data available Boiling point : No data available

Flash point : 132 °C

: No data available Relative evaporation rate (butyl acetate=1) Flammability (solid, gas) : No data available : No data available **Explosion limits** Explosive properties No data available : No data available Oxidizing properties : No data available Vapor pressure Relative density : No data available Relative vapor density at 20 °C : No data available Specific gravity / density : 0.884 a/ml (@ 25 °C)

Solubility : Water: Solubility in water of component(s) of the mixture :

 $\bullet$  1-Octanol: 300 mg/l (at 20 °C)  $\bullet$  Decyl alcohol: 37 mg/l (at 25 °C)

Log Pow : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

9.2. Other information

Refractive index : 1.4665 (@ 20 °C)

### **SECTION 10: Stability and reactivity**

## 10.1. Reactivity

No additional information available

## 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

## 10.3. Possibility of hazardous reactions

No additional information available

## 10.4. Conditions to avoid

Keep away from heat, sparks and flame.

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#### 10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

## 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products in case of fire, see Section 5.

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity : Oral: Toxic if swallowed.

Aliquat 336		
ATE US (oral)	100.000 mg/kg body weight	
1-Octanol (111-87-5)		
LD50 oral rat	> 3200 mg/kg	
LD50 dermal rabbit	> 5000 mg/kg	
Decyl alcohol (112-30-1)		
LD50 oral rat	4720 mg/kg	
LD50 dermal rabbit	3560 mg/kg	
ATE US (oral)	4720.000 mg/kg body weight	
ATE US (dermal)	3560.000 mg/kg body weight	
tri-C8-10-alkyl amines (68814-95-9)		
LD50 oral rat	5600 mg/kg	
ATE US (oral)	5600.000 mg/kg body weight	
Trioctylmethylammonium chloride (63393-96-4)		
ATE US (oral)	100.000 mg/kg body weight	

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : May cause respiratory irritation.

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Material is destructive to tissue of the mucuous membranes and upper respiratory tract. Cough,

shortness of breath, headache, nausea.

## **SECTION 12: Ecological information**

## 12.1. Toxicity

1-Octanol (111-87-5)		
LC50 fish 1	11.4 - 12.9 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
LC50 fish 2	17.68 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])	
Decyl alcohol (112-30-1)		
LC50 fish 1	2.2 - 2.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	
EC50 Daphnia 1	3 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
LC50 fish 2	4.12 - 6.2 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])	

## 12.2. Persistence and degradability

No additional information available

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#### 12.3. Bioaccumulative potential

1-Octanol (111-87-5)	
Log Pow	3.15
Decyl alcohol (112-30-1)	
Log Pow	4.11

## 12.4. Mobility in soil

No additional information available

## 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

## **SECTION 13: Disposal considerations**

## 13.1. Waste treatment methods

Waste treatment methods : Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.

Waste disposal recommendations : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information : Recycle the material as far as possible.

## **SECTION 14: Transport information**

## **Department of Transportation (DOT)**

In accordance with DOT

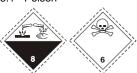
Transport document description : UN2922 Corrosive liquids, toxic, n.o.s., 8, II

UN-No.(DOT) : UN2922

Proper Shipping Name (DOT) : Corrosive liquids, toxic, n.o.s.

Transport hazard class(es) (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT) : 8 - Corrosive 6.1 - Poison



Packing group (DOT) : II - Medium Danger

Dangerous for the environment : Yes
Marine pollutant : Yes



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202 DOT Packaging Bulk (49 CFR 173.xxx) : 243

DOT Symbols : G - Identifies PSN requiring a technical name

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DOT Special Provisions (49 CFR 172.102)

: B3 - MC 300, MC 301, MC 302, MC 303, MC 305, and MC 306 and DOT 406 cargo tanks and

DOT 57 portable tanks are not authorized.

IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : 154 DOT Quantity Limitations Passenger aircraft/rail : 1 L (49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 30 L

CFR 175.75)

**DOT Vessel Stowage Location** 

: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

**DOT Vessel Stowage Other** : 40 - Stow "clear of living quarters" Other information : No supplementary information available.

#### **TDG**

No additional information available

#### Transport by sea

UN-No. (IMDG) : 2922

Proper Shipping Name (IMDG) : CORROSIVE LIQUID, TOXIC, N.O.S.

Class (IMDG) : 8 - Corrosive substances

Packing group (IMDG) : II - substances presenting medium danger

Air transport

UN-No. (IATA) : 2922

Proper Shipping Name (IATA) : Corrosive liquid, toxic, n.o.s.

Class (IATA) : 8 - Corrosives Packing group (IATA) : II - Medium Danger

## **SECTION 15: Regulatory information**

## 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

## 15.2. International regulations

#### **CANADA**

1-Octanol (111-87-5)		
Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects	
Decyl alcohol (112-30-1)		
Listed on the Canadian DSL (Domestic Sustances List)		
WHMIS Classification	Class B Division 3 - Combustible Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects	

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#### tri-C8-10-alkyl amines (68814-95-9)

Listed on the Canadian DSL (Domestic Sustances List)

#### Trioctylmethylammonium chloride (63393-96-4)

Listed on the Canadian DSL (Domestic Sustances List)

#### **EU-Regulations**

No additional information available

#### **National regulations**

#### 1-Octanol (111-87-5)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on INSQ (Mexican national Inventory of Chemical Substances)

Listed on Turkish inventory of chemical

Listed on the TCSI (Taiwan Chemical Substance Inventory)

## **Decyl alcohol (112-30-1)**

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Listed on the Canadian IDL (Ingredient Disclosure List)

Listed on INSQ (Mexican national Inventory of Chemical Substances)

Listed on Turkish inventory of chemical

Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### tri-C8-10-alkyl amines (68814-95-9)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory

Listed on the TCSI (Taiwan Chemical Substance Inventory)

### Trioctylmethylammonium chloride (63393-96-4)

Listed on the AICS (Australian Inventory of Chemical Substances)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on the Korean ECL (Existing Chemicals List)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

## 15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

## 1-Octanol (111-87-5)

U.S. - Pennsylvania - RTK (Right to Know) List

#### **Decyl alcohol (112-30-1)**

U.S. - Pennsylvania - RTK (Right to Know) List

## **SECTION 16: Other information**

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#### Full text of H-phrases:

Acute 10x. 3 (Oral) Aquatic Acute 1 Aquatic Acute 1 Aquatic Acute 2 Hazardous to the aquatic environment - Acute Hazard Category 1 Aquatic Acute 3 Hazardous to the aquatic environment - Acute Hazard Category 2 Aquatic Chronic 1 Hazardous to the aquatic environment - Chronic Hazard Category 3 Aquatic Chronic 2 Hazardous to the aquatic environment - Chronic Hazard Category 1 Aquatic Chronic 2 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Eye Dam. 1 Serious eye damage/eye irritation Category 1 Eye Irrit. 2A Serious eye damage/eye irritation Category 1 Eye Irrit. 2A Flammable liquids Category 4 Flammable liquids Category 4 Flammable liquids Category 1 Skin Corr. 1B Skin Corr. 1B Skin corrosion/irritation Category 1B Skin corrosion/irritation Category 2 STOT SE 3 Specific target organ toxicity (single exposure) Category 3 H227 Combustible liquid H314 Causes severe skin burns and eye damage H315 Causes severe skin burns and eye damage H316 Causes serious eye damage H317 Causes serious eye irritation H318 Causes serious eye damage H319 Causes serious eye irritation H318 Causes serious eye irritation H319 H300 Very toxic to aquatic life H400 H400 H401 Toxic to aquatic life H401 Toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects H411 Harmful to aquatic life with long lasting effects	Aguto Toy 2 (Oral)	Aguta tavigity (aral) Catagon, 2	
Aquatic Acute 2 Aquatic Acute 3 Aquatic Chronic 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 3 Eye Dam. 1 Eye Irrit. 2A Serious eye damage/eye irritation Category 2 Skin corrosion/irritation Category 4 Skin Corr. 1B Skin corrosion/irritation Category 2 Skin corrosion/irritation Category 2 Sign 1 Specific target organ toxicity (single exposure) Category 3 H324 H325 H335 H335 H340 H356 H319 Causes serious eye damage H319 Causes serious eye damage H310 H326 H341  Causes serious eye damage H311 H356 H360 H376 H376 H376 H376 H377 H377 H378 H378 H378 H379 H379 H379 H379 H379 H379 H379 H379	Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3	
Aquatic Acute 3 Aquatic Chronic 1 Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 2 Aquatic Chronic 3 Aquatic Chronic 3 Eye Dam. 1 Eye Irrit. 2A Flam. Liq. 4 Skin Corr. 1B Skin Irrit. 2 STOT SE 3 H227 Combustible liquid H314 Causes serious ever damage H315 H314 Causes serious ever damage H316 H318 Causes serious eye damage H319 Causes serious eye damage H319 Hazardous to the aquatic environment - Chronic Hazard Category 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Hazardous to the aquatic environment - Chronic Hazard Category 2 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic Alagardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic Alagardous Category 3 Flam. Liq. 4 Serious eye damage/eye irritation Category 1 B Skin corrosion/irritation Category 4 Skin category 4 Skin corrosion/irritation Category 4 Skin corrosion	<u>'</u>	,	
Aquatic Chronic 1 Aquatic Chronic 2 Aquatic Chronic 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Eye Dam. 1 Eye Irrit. 2A Flam. Liq. 4 Serious eye damage/eye irritation Category 2 Skin Corr. 1B Skin Corr. 1B Skin corrosion/irritation Category 1 Skin corrosion/irritation Category 1 Skin corrosion/irritation Category 2 STOT SE 3 H227 Combustible liquid H301 Toxic if swallowed H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long lasting effects			
Aquatic Chronic 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 2 Aquatic Chronic 3 Hazardous to the aquatic environment - Chronic Hazard Category 3 Eye Dam. 1 Serious eye damage/eye irritation Category 1 Eye Irrit. 2A Serious eye damage/eye irritation Category 2A Flam. Liq. 4 Skin Corr. 1B Skin corrosion/irritation Category 4 Skin corrosion/irritation Category 1B Skin Irrit. 2 Skin corrosion/irritation Category 2 STOT SE 3 Specific target organ toxicity (single exposure) Category 3 H227 Combustible liquid H301 Toxic if swallowed H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye damage H319 Causes serious eye irritation H400 Very toxic to aquatic life H401 Harmful to aquatic life H402 Harmful to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3	
Aquatic Chronic 3 Eye Dam. 1 Eye Dam. 1 Serious eye damage/eye irritation Category 1 Eye Irrit. 2A Serious eye damage/eye irritation Category 2A Flam. Liq. 4 Flammable liquids Category 4 Skin Corr. 1B Skin Corr. 1B Skin corrosion/irritation Category 1B Skin Irrit. 2 Style Category 3 Specific target organ toxicity (single exposure) Category 3 H227 Combustible liquid H301 Toxic if swallowed H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life with long lasting effects H410 Very toxic to aquatic life with long lasting effects	Aquatic Chronic 1		
Eye Dam. 1  Eye Irrit. 2A  Serious eye damage/eye irritation Category 1  Eye Irrit. 2A  Flam. Liq. 4  Flammable liquids Category 4  Skin Corr. 1B  Skin corrosion/irritation Category 1B  Skin Irrit. 2  Skin corrosion/irritation Category 2  STOT SE 3  H227  Combustible liquid  H301  Toxic if swallowed  H314  Causes severe skin burns and eye damage  H315  Causes skin irritation  H318  Causes serious eye damage  H319  Causes serious eye irritation  H335  May cause respiratory irritation  H400  Very toxic to aquatic life  H401  Harmful to aquatic life  H402  Harmful to aquatic life with long lasting effects  H410  Very toxic to aquatic life with long lasting effects	Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2	
Eye Irrit. 2A  Serious eye damage/eye irritation Category 2A  Flam. Liq. 4  Flammable liquids Category 4  Skin Corr. 1B  Skin corrosion/irritation Category 1B  Skin Irrit. 2  Skin corrosion/irritation Category 2  STOT SE 3  Specific target organ toxicity (single exposure) Category 3  H227  Combustible liquid  H301  Toxic if swallowed  H314  Causes severe skin burns and eye damage  H315  Causes skin irritation  H318  Causes serious eye damage  Causes serious eye damage  H319  Causes serious eye irritation  H400  Very toxic to aquatic life  H401  Hamful to aquatic life  H402  Harmful to aquatic life with long lasting effects  H410  Very toxic to aquatic life with long lasting effects	Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3	
Flam. Liq. 4  Skin Corr. 1B  Skin Irrit. 2  Skin corrosion/irritation Category 1B  Skin Irrit. 2  Skin corrosion/irritation Category 2  STOT SE 3  H227  Combustible liquid  H301  Toxic if swallowed  H314  Causes severe skin burns and eye damage  H315  Causes skin irritation  H318  Causes serious eye damage  H319  Causes serious eye irritation  H335  May cause respiratory irritation  H400  Very toxic to aquatic life  H401  H402  Harmful to aquatic life  H410  Very toxic to aquatic life with long lasting effects  H411  Toxic to aquatic life with long lasting effects	Eye Dam. 1	Serious eye damage/eye irritation Category 1	
Skin Corr. 1B Skin Irrit. 2 Skin corrosion/irritation Category 1B Skin Irrit. 2 Skin corrosion/irritation Category 2 STOT SE 3 Specific target organ toxicity (single exposure) Category 3 H227 Combustible liquid H301 Toxic if swallowed H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A	
Skin Irrit. 2 Skin corrosion/irritation Category 2 STOT SE 3 Specific target organ toxicity (single exposure) Category 3 H227 Combustible liquid H301 Toxic if swallowed H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 H401 Hamful to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	Flam. Liq. 4	Flammable liquids Category 4	
STOT SE 3 Specific target organ toxicity (single exposure) Category 3 H227 Combustible liquid Toxic if swallowed H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H401 Very toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	Skin Corr. 1B	Skin corrosion/irritation Category 1B	
H227 Combustible liquid H301 Toxic if swallowed H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	Skin Irrit. 2	Skin corrosion/irritation Category 2	
H301 Toxic if swallowed H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	STOT SE 3	Specific target organ toxicity (single exposure) Category 3	
H314 Causes severe skin burns and eye damage H315 Causes skin irritation H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H227	Combustible liquid	
H315 Causes skin irritation Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H301	Toxic if swallowed	
H318 Causes serious eye damage H319 Causes serious eye irritation H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H314	Causes severe skin burns and eye damage	
H319 Causes serious eye irritation H335 May cause respiratory irritation Very toxic to aquatic life H400 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H315	Causes skin irritation	
H335 May cause respiratory irritation H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H318	Causes serious eye damage	
H400 Very toxic to aquatic life H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H319	Causes serious eye irritation	
H401 Toxic to aquatic life H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H335	May cause respiratory irritation	
H402 Harmful to aquatic life H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H400	Very toxic to aquatic life	
H410 Very toxic to aquatic life with long lasting effects H411 Toxic to aquatic life with long lasting effects	H401	Toxic to aquatic life	
H411 Toxic to aquatic life with long lasting effects	H402	Harmful to aquatic life	
· · · · · · · · · · · · · · · · · · ·	H410	Very toxic to aquatic life with long lasting effects	
H412 Harmful to aquatic life with long lasting effects	H411	Toxic to aquatic life with long lasting effects	
	H412	Harmful to aquatic life with long lasting effects	

NFPA health hazard

: 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was

given.

NFPA fire hazard

: 1 - Must be preheated before ignition can occur.

: 0 - Normally stable, even under fire exposure conditions, NFPA reactivity and are not reactive with water.

HMIS III Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is

\* - Chronic (long-term) health effects may result from repeated overexposure

Flammability

: 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)

Physical

: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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 offered solely for your consideration, investigation, and verification. It does not represent any guarantee of the properties of the product nor that the hazard precautions or procedures described are the only ones which exist. SynQuest shall not be held liable or any damage resulting from handling or from contact with the above product.

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