

# SAFETY DATA SHEET

Version 8.5 Revision Date 06/04/2021 Print Date 06/26/2021

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name : Ethyl Alcohol, Denatured Anhydrous

Product Number : EX0285 Brand : Millipore

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

Identified uses : Reagent for analysis

# 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.

3050 SPRUCE ST ST. LOUIS MO 63103 UNITED STATES

Telephone : +1 314 771-5765 Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-

527-3887 CHEMTREC (International) 24

Hours/day; 7 Days/week

#### **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225 Eye irritation (Category 2A), H319 Carcinogenicity (Category 2), H351

Specific target organ toxicity - single exposure (Category 2), Eyes, H371

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement(s)

H225 Highly flammable liquid and vapor.
 H319 Causes serious eye irritation.
 H351 Suspected of causing cancer.

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H371	May cause damage to organs (Eyes).
Precautionary statement(s)	
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
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.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
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.
P308 + P311	IF exposed or concerned: Call a POISON CENTER/ doctor.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P337 + P313	If eye irritation persists: Get medical advice/ attention.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/ container to an approved waste disposal plant.

# 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

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

# 3.2 Mixtures

Component		Classification	Concentration
ethanol			
CAS-No. EC-No. Index-No.	64-17-5 200-578-6 603-002-00-5	Flam. Liq. 2; Eye Irrit. 2A; H225, H319 Concentration limits:	>= 90 - <= 100 %
Registration number Methanol	01-2119457610-43- XXXX	>= 50 %: Eye Irrit. 2A, H319;	
CAS-No. EC-No. Index-No. Registration number	67-56-1 200-659-6 603-001-00-X 01-2119433307-44- XXXX	Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301, H331, H311, H370 Concentration limits: >= 10 %: STOT SE 1, H370; 3 - < 10 %: STOT	>= 3 - < 5 %



		SE 2, H371;	
ethyl acetate			
CAS-No.	141-78-6	Flam. Liq. 2; Eye Irrit. 2A;	>= 1 - < 5 %
EC-No.	205-500-4	STOT SE 3; H225, H319,	
Index-No.	607-022-00-5	H336	
Registration	01-2119475103-46-	Concentration limits:	
number	XXXX	20 %: STOT SE 3, H336;	
4-methylpentan-2-c	one		
CAS-No.	108-10-1	Flam. Liq. 2; Acute Tox. 4;	>= 1 - < 5 %
EC-No.	203-550-1	Eye Irrit. 2A; Carc. 2;	
Index-No.	606-004-00-4	STOT SE 3; H225, H332,	
Registration	01-2119473980-30-	H319, H351, H335	
number	XXXX	Concentration limits:	
		20 %: STOT SE 3, H335;	

For the full text of the H-Statements mentioned in this Section, see Section 16.

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

# 4.1 Description of first-aid measures

#### **General advice**

Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

## If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

# 4.3 Indication of any immediate medical attention and special treatment needed No data available

#### **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.



## 5.2 Special hazards arising from the substance or mixture

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

#### **5.3** Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

#### 5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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

## 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

#### 6.2 Environmental precautions

Do not let product enter drains. Risk of explosion.

# 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

#### 6.4 Reference to other sections

For disposal see section 13.

# **SECTION 7: Handling and storage**

# 7.1 Precautions for safe handling

#### Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

# Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

# **Hygiene measures**

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

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

## **Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Recommended storage temperature see product label.

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# 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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

# 8.1 Control parameters

Ingredients with workplace control parameters

			1		
CAS-No.	Value	Control	Basis		
		parameters			
64-17-5	TWA	1,000 ppm	USA. OSHA - TABLE Z-1 Limits		
		1,900 mg/m3	for Air Contaminants -		
			1910.1000		
	TWA	1,000 ppm	USA. Occupational Exposure		
			Limits (OSHA) - Table Z-1		
		, 3,	Limits for Air Contaminants		
	STEL	1.000 ppm	USA. ACGIH Threshold Limit		
		_, -,	Values (TLV)		
Remarks	Confirmed	animal carcinogo	` ,		
Remarks		arminar caremog			
		1 000 npm	USA. NIOSH Recommended		
	' ' ' '		Exposure Limits		
	DEI		California permissible exposure		
	'		limits for chemical		
		1,900 1119/1113	contaminants (Title 8, Article		
			107)		
67-56-1	Τ\Λ/Λ	200 nnm	USA. ACGIH Threshold Limit		
07-30-1	IWA	200 μμπ	Values (TLV)		
			USA. ACGIH Threshold Limit		
	SIEL	250 ppili			
	Values (TLV)				
			<u> </u>		
	SI		USA. NIOSH Recommended		
			Exposure Limits		
	TWA		USA. NIOSH Recommended		
			Exposure Limits		
	TWA	200 ppm	USA. Occupational Exposure		
		260 mg/m3	Limits (OSHA) - Table Z-1		
			Limits for Air Contaminants		
	PEL	200 ppm	California permissible exposure		
		260 mg/m3	limits for chemical		
			contaminants (Title 8, Article		
			107)		
	Skin				
	С	1,000 ppm	California permissible exposure		
			limits for chemical		
			contaminants (Title 8, Article		
			107)		
	Skin				
	CAS-No.	CAS-No. Value  64-17-5 TWA  TWA  STEL  Remarks Confirmed humans TWA  PEL  67-56-1 TWA  Danger of of STEL  Danger of of STEL  Potential for TWA  PEL  Skin			

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		STEL	250 ppm 325 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		Skin		
ethyl acetate	141-78-6	TWA	400 ppm	USA. ACGIH Threshold Limit Values (TLV)
		TWA	400 ppm 1,400 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	400 ppm 1,400 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		PEL	400 ppm 1,400 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
4-methylpentan- 2-one	108-10-1	STEL	75 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Confirmed animal carcinogen with unknown relevance to humans		
		TWA	50 ppm 205 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		STEL	75 ppm 300 mg/m3	USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
		TWA	100 ppm 410 mg/m3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		TWA	20 ppm	USA. ACGIH Threshold Limit Values (TLV)
		humans	animal carcinog	en with unknown relevance to
		ST	75 ppm 300 mg/m3	USA. NIOSH Recommended Exposure Limits
		TWA	50 ppm 205 mg/m3	USA. NIOSH Recommended Exposure Limits
		PEL	50 ppm 205 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)
		STEL	75 ppm 300 mg/m3	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Biological occupational exposure limits						
Component	CAS-No.	Parameters	Value	Biological specimen	Basis	
Methanol	67-56-1	Methanol	15 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)	

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	Remarks	End of shift (As soon as possible after exposure ceases)			
4-methylpentan- 2-one	108-10-1	methyl isobutyl ketone	1 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
		End of shift (As soon as possible after exposure ceases)			

## 8.2 Exposure controls

## **Appropriate engineering controls**

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

## Personal protective equipment

## **Eye/face protection**

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

# **Skin protection**

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: butyl-rubber

Minimum layer thickness: 0.7 mm Break through time: > 480 min Material tested:Butoject® (KCL 898)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell,

Internet: www.kcl.de).

Splash contact Material: Viton®

Minimum layer thickness: 0.70 mm Break through time: > 120 min

Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)

#### **Body Protection**

Flame retardant antistatic protective clothing.

#### **Respiratory protection**

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### **Control of environmental exposure**

Do not let product enter drains. Risk of explosion.



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

# 9.1 Information on basic physical and chemical properties

Form: liquid a) Appearance Color: colorless b) Odor No data available c) Odor Threshold No data available No data available d) pH No data available e) Melting point/freezing point Initial boiling point No data available f) and boiling range

g) Flash point 11 °C (52 °F)
 h) Evaporation rate No data available
 i) Flammability (solid, gas)

j) Upper/lower No data available flammability or explosive limits

k) Vapor pressure No data availablel) Vapor density No data availablem) Relative density No data available

n) Water solubility soluble

o) Partition coefficient: No data available n-octanol/water

p) Autoignition No data available temperature

q) Decomposition No data available temperature

r) Viscosity No data availables) Explosive properties No data availablet) Oxidizing properties No data available

#### 9.2 Other safety information

No data available

# **SECTION 10: Stability and reactivity**

#### 10.1 Reactivity

Vapors may form explosive mixture with air.

#### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

## 10.3 Possibility of hazardous reactions

Risk of explosion/exothermic reaction with:

hydrogen peroxide

perchlorates

perchloric acid

Nitric acid

mercury(II) nitrate

permanganic acid

**Nitriles** 

peroxi compounds

Oxidizing agents

nitrosyl compounds

Peroxides

sodium

Potassium

halogen oxides

calcium hypochlorite

nitrogen dioxide

metallic oxides

uranium hexafluoride

iodides

Chlorine

Alkali metals

Alkaline earth metals

alkali oxides

Ethylene oxide

salts of oxyhalogenic acids

chromium(VI) oxide

nitrogen oxides

nonmetallic oxides

chromosulfuric acid

chlorates

hydrides

zinc diethyl

Halogens

Magnesium

acid halides

Acid anhydrides

Reducing agents

Acids

silver

with

Nitric acid

silver compounds

with

Ammonia

potassium permanganate

. with

conc. sulfuric acid

Risk of ignition or formation of inflammable gases or vapours with:

halogen-halogen compounds

chromyl chloride

Fluorine

Oxides of phosphorus

platinum



Nitric acid with potassium permanganate

#### 10.4 Conditions to avoid

Warming.

#### 10.5 Incompatible materials

various plastics, Magnesium, Rubber, zinc alloys

# 10.6 Hazardous decomposition products

In the event of fire: see section 5

#### **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

#### **Mixture**

# **Acute toxicity**

Acute toxicity estimate Oral - 2,821 mg/kg (Calculation method)

Acute toxicity estimate Inhalation - 4 h - 79.22 mg/l

(Calculation method)

Symptoms: Possible symptoms:, mucosal irritations

Acute toxicity estimate Dermal - > 5,000 mg/kg

(Calculation method)

## Skin corrosion/irritation

No data available

## Serious eye damage/eye irritation

Mixture causes serious eye irritation.

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

## Carcinogenicity

Evidence of a carcinogenic effect.

IARC: 2B - Group 2B: Possibly carcinogenic to humans (4-methylpentan-2-one)

NTP: No ingredient 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

on OSHA's list of regulated carcinogens.

# Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

Mixture may cause damage to organs. - Eyes

#### Specific target organ toxicity - repeated exposure

No data available



# **Aspiration hazard**

No data available

#### 11.2 Additional Information

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## Components

## ethanol

# **Acute toxicity**

LD50 Oral - Rat - male and female - 10,470 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 124.7 mg/l

(OECD Test Guideline 403) Dermal: No data available

No data available

## Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h (OECD Test Guideline 404)

# Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye irritation.

(OECD Test Guideline 405)

# Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Remarks: (in analogy to similar products)

The value is given in analogy to the following substances: Methanol

#### Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: negative

Method: OECD Test Guideline 478

Species: Mouse - male

Result: Positive results were obtained in some in vivo tests.

# Carcinogenicity

No data available

## Reproductive toxicity

No data available

# Specific target organ toxicity - single exposure

No data available



## Specific target organ toxicity - repeated exposure

## **Aspiration hazard**

No data available

#### Methanol

## **Acute toxicity**

Acute toxicity estimate Oral - 100.1 mg/kg

(Expert judgment)

Symptoms: Nausea, Vomiting

Acute toxicity estimate Inhalation - 4 h - 3.1 mg/l

(Expert judgment)

Symptoms: Irritation symptoms in the respiratory tract.

Acute toxicity estimate Dermal - 300.1 mg/kg

(Expert judgment)

# Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Remarks: (ECHA)

Drying-out effect resulting in rough and chapped skin.

## Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

## Respiratory or skin sensitization

Sensitisation test: - Guinea pig

Result: negative

(OECD Test Guideline 406)

#### **Germ cell mutagenicity**

Based on available data the classification criteria are not met.

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster lung cells

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Bone marrow

Result: negative **Carcinogenicity** 

# Did not show carcinogenic effects in animal experiments.

#### Reproductive toxicity

Based on available data the classification criteria are not met.

## Specific target organ toxicity - single exposure

Causes damage to organs. - Eyes, Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 2.1/2.2)

3.1/3.2)

Acute oral toxicity - Nausea, Vomiting

Acute inhalation toxicity - Irritation symptoms in the respiratory tract.



## Specific target organ toxicity - repeated exposure

No data available

## **Aspiration hazard**

No data available

# ethyl acetate

#### **Acute toxicity**

LD50 Oral - Rat - 5,620 mg/kg

Remarks: (RTECS)

Inhalation: No data available

LD50 Dermal - Rabbit - male - > 20,000 mg/kg

Remarks: (ECHA) No data available

## Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation Remarks: (IUCLID)

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation (OECD Test Guideline 405)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

## Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

# Germ cell mutagenicity

Test Type: UDS (Unscheduled DNA synthesis assay)

Test system: Escherichia coli

Result: negative Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells

Result: negative

Method: OECD Test Guideline 474

Species: Chinese hamster - male and female - Red blood cells (erythrocytes)

Result: negative **Carcinogenicity** 

# This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

## Reproductive toxicity

No data available

#### Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system



# Specific target organ toxicity - repeated exposure

## **Aspiration hazard**

No data available

## 4-methylpentan-2-one

## **Acute toxicity**

LD50 Oral - Rat - 2,080 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male - 4 h - 11.6 mg/l (OECD Test Guideline 403) Dermal: No data available No data available

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

# Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye irritation. - 72 h

(OECD Test Guideline 405)

(Regulation (EC) No 1272/2008, Annex VI)

## Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

## Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration.

Test system: rat hepatocytes

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: mouse lymphoma cells

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

No data available

#### Reproductive toxicity

No data available

# **Specific target organ toxicity - single exposure**

May cause respiratory irritation. - Respiratory system

# Specific target organ toxicity - repeated exposure

#### **Aspiration hazard**

No data available



## **SECTION 12: Ecological information**

## 12.1 Toxicity

#### **Mixture**

No data available

#### 12.2 Persistence and degradability

No data available

#### 12.3 Bioaccumulative potential

No data available

#### 12.4 Mobility in soil

No data available

#### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### 12.6 Other adverse effects

No data available

#### **Components**

#### ethanol

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead

minnow) - 15,300 mg/l - 96 h

(US-EPA)

Toxicity to daphnia

static test LC50 - Ceriodaphnia dubia (water flea) - 5,012 mg/l

and other aquatic

- 48 h invertebrates Remarks: (ECHA)

Toxicity to algae

static test ErC50 - Chlorella vulgaris (Fresh water algae) - 275

mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria

static test IC50 - activated sludge - > 1,000 mg/l - 3 h

(OECD Test Guideline 209)

#### Methanol

Toxicity to fish flow-through test LC50 - Lepomis macrochirus (Bluegill) -

15,400.0 mg/l - 96 h

(US-EPA)

Toxicity to daphnia

semi-static test EC50 - Daphnia magna (Water flea) - 18,260

and other aquatic invertebrates

mg/l - 96 h (OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata (green

algae) - ca. 22,000.0 mg/l - 96 h

(OECD Test Guideline 201)

Toxicity to bacteria

static test IC50 - activated sludge - > 1,000 mg/l - 3 h

(OECD Test Guideline 209)



ethyl acetate

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead

minnow) - 230 mg/l - 96 h

(US-EPA)

Toxicity to algae static test NOEC - Desmodesmus subspicatus (green algae) - >

100 mg/l - 72 h

(OECD Test Guideline 201)

4-methylpentan-2-one

Toxicity to fish static test LC50 - Danio rerio (zebra fish) - > 179 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia

static test EC50 - Daphnia magna (Water flea) - > 200 mg/l -

and other aquatic 48 h

invertebrates (OECD Test Guideline 202)

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

#### Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

# **SECTION 14: Transport information**

DOT (US)

UN number: 1993 Class: 3 Packing group: II

Proper shipping name: Flammable liquids, n.o.s. (ethanol, ethyl acetate)

Reportable Quantity (RQ): Poison Inhalation Hazard: No

**IMDG** 

UN number: 1993 Class: 3 Packing group: II EMS-No: F-E, S-E

Proper shipping name: FLAMMABLE LIQUID, N.O.S. (ethanol, ethyl acetate)

**IATA** 

UN number: 1993 Class: 3 Packing group: II

Proper shipping name: Flammable liquid, n.o.s. (ethanol, ethyl acetate)

# **SECTION 15: Regulatory information**

## **SARA 302 Components**

This material does not contain any components with a section 302 EHS TPQ.

#### **SARA 313 Components**

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The following components are subject to reporting levels established by SARA Title III, Section 313:

Methanol CAS-No. Revision Date 67-56-1 2007-07-01

108-10-1 2007-03-01

4-methylpentan-2-one

# **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

# **SECTION 16: Other information**

#### **Further information**

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 Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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