

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Revision Date 06/05/2018

Version 1.3

#### SISECTION 1.Identification

#### **Product identifier**

Product number EX0281

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

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

Identified uses Reagent for analysis

## Details of the supplier of the safety data sheet

Company EMD Millipore Corporation | 400 Summit Drive | Burlington |

Massachusetts 01803 | United States of America | General Inquiries: +1 800-645-5476 | Monday to Friday, 9:00 AM to 4:00 PM Eastern

Time (GMT-5)

MilliporeSigma is a business of Merck KGaA, Darmstadt, Germany.

Emergency telephone 800-424-9300 CHEMTREC (USA)

+1-703-527-3887 CHEMTREC (International)

24 Hours/day; 7 Days/week

#### **SECTION 2. Hazards identification**

#### **GHS Classification**

Flammable liquid, Category 2, H225 Eye irritation, Category 2A, H319

Specific target organ systemic toxicity - single exposure, Category 2, Eyes, H371 For the full text of the H-Statements mentioned in this Section, see Section 16.

# **GHS-Labeling**

Hazard pictograms







Signal Word
Danger

Hazard Statements

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H371 May cause damage to organs (Eyes).

Precautionary Statements

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

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.

P309 + P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/ physician.

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.

#### Other hazards

None known.

## SECTION 3. Composition/information on ingredients

Chemical nature Solvent mixture

#### Hazardous ingredients

Chemical name (Concentration)
CAS-No.
ethanol (>= 50 % - < 70 %)
64-17-5

Exact percentages are being withheld as a trade secret.

methanol (>= 1 % - < 5 % ) 67-56-1

Exact percentages are being withheld as a trade secret.

4-methylpentan-2-one (>= 1 % - < 5 % ) 108-10-1

Exact percentages are being withheld as a trade secret.

ethyl acetate (>= 1 % - < 5 %) 141-78-6

Exact percentages are being withheld as a trade secret.

## **SECTION 4. First aid measures**

# Description of first-aid measures

Inhalation

After inhalation: fresh air. Call in physician.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

Skin contact

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

Eye contact

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

Ingestion

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

Never give anything by mouth to an unconscious person.

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

respiratory paralysis, Dizziness, narcosis, inebriation, euphoria, Nausea, Vomiting, Drowsiness, agitation, spasms, blindness, Headache, Coma, Impairment of vision irritant effects

# Indication of any immediate medical attention and special treatment needed

Mention methanol.

## **SECTION 5. Fire-fighting measures**

#### 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.

## 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 vapors possible in the event of fire.

Forms explosive mixtures with air at ambient temperatures.

#### Advice for firefighters

Special protective equipment for fire-fighters

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

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

## 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.

Advice for emergency responders:

Protective equipment see section 8.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

## **Environmental precautions**

Do not let product enter drains. Risk of explosion.

## 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.

## SECTION 7. Handling and storage

# Precautions for safe handling

Observe label precautions.

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

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

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

Store at room temperature.

## SECTION 8. Exposure controls/personal protection

## Exposure limit(s)

In	aı	~	a	e	n	ts.

Basis	Value	I hreshold limits	Remarks				
ethanol 64-17-5							
ACGIH	Short Term Exposure Limit (STEL):	1,000 ppm					
NIOSH/GUIDE	Recommended	1,000 ppm					
	exposure limit (REL):	1,900 mg/m³					
OSHA TRANS	PEL:	1,000 ppm					
_		1,900 mg/m³					
Z1A	Time Weighted Average	1,000 ppm					
217	(TWA):	1,900 ppm 1,900 mg/m³					
	• ,						

methanol 67-56-1

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3 Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

**ACGIH** Time Weighted Average

(TWA):

Short Term Exposure Limit (STEL):

250 ppm

Skin designation:

Can be absorbed through the skin.

NIOSH/GUIDE Recommended

exposure limit (REL):

200 ppm 260 mg/m<sup>3</sup>

200 ppm

Skin designation:

Can be absorbed through the skin.

Can be absorbed through the skin.

Short Term Exposure

Limit (STEL):

250 ppm 325 mg/m<sup>3</sup>

OSHA\_TRANS

Z1A

200 ppm 260 mg/m<sup>3</sup>

Time Weighted Average 200 ppm

(TWA):

PEL:

260 mg/m<sup>3</sup>

Skin designation (Final

Rule Limit applies):

Short Term Exposure Limit (STEL):

250 ppm 325 mg/m<sup>3</sup>

4-methylpentan-2-one 108-10-1

**ACGIH** Time Weighted Average (TWA):

20 ppm

Short Term Exposure

75 ppm

NIOSH/GUIDE Recommended

50 ppm exposure limit (REL): 205 mg/m<sup>3</sup>

Short Term Exposure

Limit (STEL):

Limit (STEL):

75 ppm 300 mg/m<sup>3</sup>

OSHA\_TRANS PEL: 100 ppm 410 mg/m<sup>3</sup>

Z1A

Time Weighted Average

(TWA):

50 ppm 205 mg/m<sup>3</sup>

Short Term Exposure

Limit (STEL):

75 ppm 300 mg/m<sup>3</sup>

ethyl acetate 141-78-6

**ACGIH** 

Time Weighted Average

400 ppm

NIOSH/GUIDE

Recommended exposure limit (REL): 400 ppm 1,400 mg/m<sup>3</sup>

OSHA\_TRANS

PEL:

(TWA):

400 ppm 1,400 mg/m<sup>3</sup>

Z1A

Time Weighted Average

400 ppm 1,400 mg/m<sup>3</sup>

(TWA):

#### **Engineering measures**

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

## Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

#### Hygiene measures

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

Eye/face protection

Safety glasses

Hand protection

full contact:

Glove material: butyl-rubber
Glove thickness: 0.7 mm
Break through time: > 480 min

splash contact:

Glove material: Viton (R)
Glove thickness: 0.70 mm
Break through time: > 120 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 898 Butoject® (full contact), KCL 890 Vitoject® (splash contact).

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. 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).

## Other protective equipment:

Flame retardant antistatic protective clothing.

#### Respiratory protection

required when vapors/aerosols are generated. Recommended Filter type: Filter AX (EN 371)

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are performed according to the instructions of the producer. These measures have to be properly documented.

#### SECTION 9. Physical and chemical properties

Physical state liquid

Color colorless

Odor No strong odor known.

Odor Threshold No information available.

pH No information available.

Melting point No information available.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number	EX0281	Version 1.3
Product name	Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)	

Boiling point No information available.

Flash point 51.1 °F (10.6 °C)

Evaporation rate No information available.

Flammability (solid, gas) No information available.

Lower explosion limit No information available.

Upper explosion limit No information available.

Vapor pressure No information available.

Relative vapor density No information available.

Density No information available.

Relative density No information available.

Water solubility No information available.

Partition coefficient: n-

Autoignition temperature

Decomposition temperature

octanol/water

No information available.

No information available.

No information available.

Viscosity, dynamic No information available.

Explosive properties Not classified as explosive.

Oxidizing properties none

# SECTION 10. Stability and reactivity

## Reactivity

Vapors may form explosive mixture with air.

#### Chemical stability

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

#### 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

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

silver, with, Nitric acid

silver compounds, with, Ammonia

potassium permanganate, with, conc. sulfuric acid

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

halogen-halogen compounds, chromyl chloride, Fluorine, Oxides of phosphorus, platinum

Nitric acid, with, potassium permanganate

## Conditions to avoid

Warming.

## Incompatible materials

various plastics, magnesium, rubber, zinc alloys

## Hazardous decomposition products

no information available

# **SECTION 11. Toxicological information**

## Information on toxicological effects

Likely route of exposure
Eye contact, Skin contact

Target Organs

Respiratory system

Central nervous system

Eyes

Skin

Liver

Blood

reproductive system

gastrointestinal tract

Kidneys

Acute oral toxicity

Symptoms: Nausea, Vomiting

Acute toxicity estimate: > 2,000 mg/kg

Calculation method

Acute inhalation toxicity

Acute toxicity estimate: > 20 mg/l; 4 h; vapor

Calculation method

Symptoms: Possible symptoms:, mucosal irritations

Acute dermal toxicity

Acute toxicity estimate: > 2,000 mg/kg

Calculation method

Skin irritation

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

Eye irritation

Mixture causes serious eye irritation.

Carcinogenicity

Carcinogen classifications of IARC, NTP, California proposition 65 for Ethanol CAS 64-17-5 apply to beverage use only. This product is NOT intended for this use.

Specific target organ systemic toxicity - single exposure

May cause damage to organs.

Target Organs: Eyes

Specific target organ systemic toxicity - repeated exposure

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

Aspiration hazard

Regarding the available data the classification criteria are not fulfilled.

Carcinogenicity

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

egual to 0.1% is identified as a known or anticipated carcinogen

by NTP.

ACGIH Confirmed animal carcinogen with unknown relevance to

humans.

4-methylpentan-2-one 108-10-1

#### **Further information**

Systemic effects:

Headache, Dizziness, Drowsiness, narcosis, agitation, spasms, inebriation, euphoria, drop in blood pressure, acidosis, Impairment of vision, blindness, respiratory paralysis, Coma Symptoms may be delayed.

Damage to:

Liver, Kidney, Cardiac, Irreversible damage of the optical nerve.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

## Ingredients

ethanol

Acute oral toxicity LD50 Rat: 10,470 mg/kg OECD Test Guideline 401

Acute inhalation toxicity LC50 Rat: 124.7 mg/l; 4 h; vapor OECD Test Guideline 403

# according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

Skin irritation

Rabbit

Result: No skin irritation OECD Test Guideline 404

Eye irritation Rabbit

Result: Eye irritation

OECD Test Guideline 405

Sensitization

Sensitization test (Magnusson and Kligman):

Result: negative (IUCLID)

Germ cell mutagenicity Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

In vitro mammalian cell gene mutation test

MOUSE LYMPHOMA TEST

Result: negative

Method: OECD Test Guideline 476

Reproductive toxicity
Application Route: Oral

Mouse

Method: OECD Test Guideline 416

#### methanol

Acute oral toxicity

LDLO human: 143 mg/kg (RTECS)
Acute toxicity estimate: 100.1 mg/kg

Expert judgment

Acute inhalation toxicity

LC50 Rat: 131.25 mg/l; 4 h; vapor (ECHA)

Acute dermal toxicity

LD50 Rabbit: ca. 17,100 mg/kg (External MSDS)

Acute toxicity estimate: 300.1 mg/kg

Expert judgment

Skin irritation

Rabbit

Result: No skin irritation

(ECHA)

Eye irritation

Rabbit

Result: No eye irritation

(ECHA)

Sensitization

Sensitization test: Guinea pig

Result: negative

Method: OECD Test Guideline 406

# according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

Repeated dose toxicity

Rat

male and female Inhalation vapor 28 d daily

NOAEL: 6.66 mg/l OECD Test Guideline 412 Subacute toxicity

Rat

male and female Inhalation 365 d daily

NOAEL: 0.13 mg/l LOAEL: 1.3 mg/l

OECD Test Guideline 453

Germ cell mutagenicity Genotoxicity in vivo Micronucleus test

Mouse

Result: negative

Method: OECD Test Guideline 474

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

In vitro mammalian cell gene mutation test

Result: negative

Method: OECD Test Guideline 476

## 4-methylpentan-2-one

Acute oral toxicity LD50 Rat: 2,080 mg/kg OECD Test Guideline 401

Acute inhalation toxicity

LC50 Rat: 11.6 mg/l; 4 h; vapor OECD Test Guideline 403

Acute dermal toxicity LD50 Rat: > 2,000 mg/kg OECD Test Guideline 402

Skin irritation

Rabbit

Result: No skin irritation OECD Test Guideline 404

Eye irritation

Rabbit

Result: slight irritation OECD Test Guideline 405

# according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

Sensitization

Sensitization test (Magnusson and Kligman): Guinea pig

Result: Does not cause skin sensitization. Method: OECD Test Guideline 406

Repeated dose toxicity

Rat

male and female

Oral 90 d daily

NOAEL: 250 mg/kg LOAEL: 1,000 mg/kg OECD Test Guideline 408 Subchronic toxicity

Germ cell mutagenicity Genotoxicity in vivo Micronucleus test

Mouse

Result: negative

Method: OECD Test Guideline 474

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative

Method: OECD Test Guideline 473

In vitro mammalian cell gene mutation test

MOUSE LYMPHOMA TEST

Result: negative

Method: OECD Test Guideline 476

#### ethyl acetate

Acute oral toxicity

LD50 Rat: 5,620 mg/kg (RTECS)

Acute dermal toxicity

LD50 Rabbit: > 18,000 mg/kg (External MSDS)

Skin irritation

Rabbit

Result: No skin irritation

(IUCLID)

Sensitization

Maximization Test Guinea pig

Result: negative

Method: OECD Test Guideline 406

Germ cell mutagenicity

Genotoxicity in vitro

Ames test

Salmonella typhimurium

Result: negative

Method: OECD Test Guideline 471

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

Mutagenicity (mammal cell test): chromosome aberration.

Result: negative

(National Toxicology Program)

## **SECTION 12. Ecological information**

## **Ecotoxicity**

No information available.

# Persistence and degradability

No information available.

# Bioaccumulative potential

No information available.

## Mobility in soil

No information available.

# Ingredients

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ethanol
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LC50 Leuciscus idus (Golden orfe): 8,140 mg/l; 48 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC5 E.sulcatum: 65 mg/l; 72 h (Lit.)

EC50 Daphnia magna (Water flea): 9,268 - 14,221 mg/l; 48 h (IUCLID)

Toxicity to algae

IC5 Scenedesmus quadricauda (Green algae): 5,000 mg/l; 7 d (Lit.)

Toxicity to bacteria

EC5 Pseudomonas putida: 6,500 mg/l; 16 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) semi-static test NOEC Daphnia magna (Water flea): 9.6 mg/l; 9 d

(ECHA)

Biodegradability

OECD Test Guideline 301E

Readily biodegradable.

Biochemical Oxygen Demand (BOD)

930 - 1,670 mg/g (5 d)

(Lit.)

Theoretical oxygen demand (ThOD)

2,100 mg/g

(Lit.)

Ratio COD/ThBOD

90 %

(Lit.)

Partition coefficient: n-octanol/water

log Pow: -0.31 (experimental)

(Lit.) Bioaccumulation is not expected.

## according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

Substance does not meets the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

#### methanol

Toxicity to fish

flow-through test LC50 Lepomis macrochirus (Bluegill sunfish): 15,400 mg/l; 96 h

**US-EPA** 

Toxicity to daphnia and other aquatic invertebrates

EC5 E.sulcatum: > 10,000 mg/l; 72 h (Lit.)

EC50 Daphnia magna (Water flea): > 10,000 mg/l; 48 h (IUCLID)

Toxicity to algae

static test EC50 Pseudokirchneriella subcapitata (green algae): ca. 22,000 mg/l; 96 h

**OECD Test Guideline 201** 

Toxicity to bacteria

EC5 Pseudomonas fluorescens: 6,600 mg/l; 16 h (IUCLID)

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

Analytical monitoring: yes

OECD Test Guideline 209

Toxicity to fish (Chronic toxicity)

NOEC Oryzias latipes (Orange-red killifish): 7,900 mg/l; 200 h

(External MSDS)

Biodegradability

99 %; 30 d

OECD Test Guideline 301D

Readily biodegradable.

Biochemical Oxygen Demand (BOD)

600 - 1,120 mg/g (5 d)

(IUCLID)

Chemical Oxygen Demand (COD)

1,420 mg/g

(IUCLID)

Theoretical oxygen demand (ThOD)

1,500 mg/g

(Lit.)

Ratio BOD/ThBOD

BOD5 76 %

Closed Bottle test

Partition coefficient: n-octanol/water

log Pow: -0.77

(experimental)

(Lit.) Bioaccumulation is not expected.

Substance does not meets the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

Stability in water

2.2 yr

reaction with hydroxyl radicals (IUCLID)

## according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

#### 4-methylpentan-2-one

Toxicity to fish

static test LC50 Danio rerio (zebra fish): > 179 mg/l; 96 h

Analytical monitoring: yes OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates

static test EC50 Daphnia magna (Water flea): > 200 mg/l; 48 h

Analytical monitoring: yes OECD Test Guideline 202

Toxicity to algae

IC50 Pseudokirchneriella subcapitata (green algae): 400 mg/l; 96 h (IUCLID)

Toxicity to bacteria

static test NOEC Pseudomonas putida: 275 mg/l; 16 h DIN 38412 TEIL 8 (maximum permissible toxic concentration)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)

semi-static test NOEC Daphnia: 30 - 35 mg/l; 21 d

Analytical monitoring: yes

OFCD Test Guideline 211

Biodegradability

83 %; 28 d; aerobic

OECD Test Guideline 301F

Readily biodegradable.

Theoretical oxygen demand (ThOD)

2,720 mg/g

(Lit.)

Ratio COD/ThBOD

79 %

(Lit.)

Partition coefficient: n-octanol/water

log Pow: 1.9

**OECD Test Guideline 117** 

Bioaccumulation is not expected.

Substance does not meets the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

# ethyl acetate

Toxicity to fish

LC50 Pimephales promelas (fathead minnow): 230 mg/l; 96 h (IUCLID)

Toxicity to daphnia and other aquatic invertebrates

EC50 Daphnia magna (Water flea): 717 mg/l; 48 h (IUCLID)

Toxicity to algae

IC50 Desmodesmus subspicatus (green algae): 3,300 mg/l; 48 h (IUCLID)

Toxicity to bacteria

EC10 Pseudomonas putida: 2,900 mg/l; 16 h (IUCLID)

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

Biodegradability 100 %; 28 d

OECD Test Guideline 301D Readily biodegradable.

Theoretical oxygen demand (ThOD)

1,820 mg/g (Lit.)

Substance does not meets the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.

## **SECTION 13. Disposal considerations**

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

## **SECTION 14. Transport information**

Land transport (DOT)

UN number UN 1993

Proper shipping name FLAMMABLE LIQUID, N.O.S. (ETHANOL, ETHYL

ACETATE)

Class 3
Packing group II
Environmentally hazardous --

Air transport (IATA)

UN number UN 1993

Proper shipping name FLAMMABLE LIQUID, N.O.S. (ETHANOL, ETHYL

ACETATE)

Class 3
Packing group II
Environmentally hazardous -Special precautions for user no

Sea transport (IMDG)

UN number UN 1993

Proper shipping name FLAMMABLE LIQUID, N.O.S. (ETHANOL, ETHYL

ACETATE)

Class 3
Packing group II
Environmentally hazardous -Special precautions for user
EmS F-E S-E

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

#### **SECTION 15. Regulatory information**

## **United States of America**

#### **SARA 313**

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

Ingredients

methanol 67-56-1 *3 %* 4-methylpentan-2-one 108-10-1 *1 %* 

#### **SARA 302**

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

#### Clean Water Act

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

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

## **DEA List I**

Not listed

#### **DEA List II**

Listed

Ingredients

4-methylpentan-2-one 108-10-1

# **US State Regulations**

## Massachusetts Right To Know

Ingredients

ethanol

methanol

ethyl acetate

4-methylpentan-2-one

## Pennsylvania Right To Know

Ingredients

ethanol

methanol

ethyl acetate

4-methylpentan-2-one

## **New Jersey Right To Know**

Ingredients

ethanol

methanol

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

ethyl acetate

4-methylpentan-2-one

# California Prop 65 Components

WARNING: this product contains a chemical known in the State of California to cause cancer.

Ingredients

4-methylpentan-2-one

#### California Prop 65 Components

WARNING: This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Ingredients

methanol

4-methylpentan-2-one

#### **Notification status**

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL

#### **SECTION 16. Other information**

## Training advice

Provide adequate information, instruction and training for operators.

#### Labeling

Hazard pictograms







Signal Word
Danger

#### Hazard Statements

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H371 May cause damage to organs (Eyes).

## Precautionary Statements

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P240 Ground/bond container and receiving equipment.

Response

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.

Storage

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

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number EX0281 Version 1.3

Product name Ethyl Alcohol, Denatured/Water Blend 70/30 (v/v)

## Full text of H-Statements referred to under sections 2 and 3.

H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H371 May cause damage to organs.

# Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Revision Date06/05/2018

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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