

Creation Date 30-Jun-2011

Revision Date 13-Oct-2023

Revision Number 8

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Description:** Ethanol, 70%, technical  
**Cat No. :** 444280000; 444280050  
**Synonyms** Ethyl alcohol; Ethyl hydrate  
**EC No** 200-578-6

**Unique Formula Identifier (UFI)** F71J-72R3-NX04-CET2

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

**Recommended Use** Laboratory chemicals.  
**Uses advised against** No Information available

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

#### Company

**EU entity/business name**  
 Thermo Fisher Scientific  
 Janssen Pharmaceuticaaan 3a, 2440 Geel, Belgium

**UK entity/business name**  
 Fisher Scientific UK  
 Bishop Meadow Road,  
 Loughborough, Leicestershire LE11 5RG, United Kingdom

**Swiss distributor - Fisher Scientific AG**  
 Neuhofstrasse 11, CH 4153 Reinach  
 Tel: +41 (0) 56 618 41 11  
 e-mail - info@thermofisher.com

**E-mail address** begel.sdsdesk@thermofisher.com

### 1.4. Emergency telephone number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11  
 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

customers in Switzerland:  
 Tox Info Suisse Emergency Number: **145 (24hr)**  
 Tox Info Suisse: +41-44 251 51 51 (Emergency number from abroad)  
 Chemtrec (24h) Toll-Free: 0800 564 402  
 Chemtrec Local: +41-43 508 20 11 (Zurich)

#### Poison Centre - Emergency information services

**Ireland** : National Poisons Information Centre (NPIC) -  
**01 809 2166** (8am-10pm, 7 days a week)  
**Malta** : +356 2395 2000  
**Cyprus** : +357 2240 5611

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

#### CLP Classification - Regulation (EC) No 1272/2008

##### Physical hazards

Flammable liquids

Category 2 (H225)

##### Health hazards

Serious Eye Damage/Eye Irritation

Category 2 (H319)

##### Environmental hazards

Based on available data, the classification criteria are not met

Full text of Hazard Statements: see section 16

### 2.2. Label elements



Signal Word

Danger

#### Hazard Statements

H225 - Highly flammable liquid and vapor

H319 - Causes serious eye irritation

#### Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

P264 - Wash face, hands and any exposed skin thoroughly after handling

P280 - Wear eye protection/ face protection

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

P337 + P313 - If eye irritation persists: Get medical advice/attention

### 2.3. Other hazards

This product does not contain any known or suspected endocrine disruptors

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

Component	CAS No	EC No	Weight %	CLP Classification - Regulation (EC) No 1272/2008
Ethyl alcohol	64-17-5	200-578-6	70	Flam. Liq. 2 (H225) Eye Irrit. 2 (H319)
Water	7732-18-5	231-791-2	30	-

Component	Specific concentration limits (SCL's)	M-Factor	Component notes
Ethyl alcohol	Eye Irrit. 2 :: C>=50%	-	-

Components	Reach Registration Number
Ethanol	01-2119457610-43

Full text of Hazard Statements: see section 16

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>General Advice</b>	If symptoms persist, call a physician.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

Irritating to eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

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

<b>Notes to Physician</b>	Treat symptomatically.
---------------------------	------------------------

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

#### Extinguishing media which must not be used for safety reasons

No information available.

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

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

## Hazardous Combustion Products

Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.

### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

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

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Avoid ingestion and inhalation. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area. Keep away from heat, sparks and flame.

**Technical Rules for Hazardous Substances (TRGS) 510**  
**Storage Class (LGK) (Germany)**

Class 3

**Switzerland - Storage of hazardous substances**

Storage class - SC 3  
<https://www.kvu.ch/de/themen/stoffe-und-produkte>  
<https://www.kvu.ch/fr/themes/substances-et-produits>  
<https://www.kvu.ch/it/temi/sostanze-e-prodotti>

### 7.3. Specific end use(s)

Use in laboratories

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure limits

List source(s): **UK** - EH40/2005 Work Exposure Limits, Forth edition. Published 2020. **IRE** - 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am Arbeitsplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

Component	European Union	The United Kingdom	France	Belgium	Spain
Ethyl alcohol		TWA: 1000 ppm TWA; 1920 mg/m <sup>3</sup> TWA WEL - STEL: 3000 ppm STEL: 5760 mg/m <sup>3</sup> STEL	TWA / VME: 1000 ppm (8 heures). TWA / VME: 1900 mg/m <sup>3</sup> (8 heures). STEL / VLCT: 5000 ppm. STEL / VLCT: 9500 mg/m <sup>3</sup> .	TWA: 1000 ppm 8 uren TWA: 1907 mg/m <sup>3</sup> 8 uren	STEL / VLA-EC: 1000 ppm (15 minutos). STEL / VLA-EC: 1910 mg/m <sup>3</sup> (15 minutos).

Component	Italy	Germany	Portugal	The Netherlands	Finland
Ethyl alcohol		200 ppm TWA MAK; 380 mg/m <sup>3</sup> TWA MAK	STEL: 1000 ppm 15 minutos	huid STEL: 1900 mg/m <sup>3</sup> 15 minuten TWA: 260 mg/m <sup>3</sup> 8 uren	TWA: 1000 ppm 8 tunteina TWA: 1900 mg/m <sup>3</sup> 8 tunteina STEL: 1300 ppm 15 minuutteina STEL: 2500 mg/m <sup>3</sup> 15 minuutteina

Component	Austria	Denmark	Switzerland	Poland	Norway
Ethyl alcohol	MAK-KZGW: 2000 ppm 15 Minuten MAK-KZGW: 3800 mg/m <sup>3</sup> 15 Minuten MAK-TMW: 1000 ppm 8 Stunden MAK-TMW: 1900 mg/m <sup>3</sup> 8 Stunden	TWA: 1000 ppm 8 timer TWA: 1900 mg/m <sup>3</sup> 8 timer STEL: 2000 ppm 15 minutter STEL: 3800 mg/m <sup>3</sup> 15 minutter	STEL: 1000 ppm 15 Minuten STEL: 1920 mg/m <sup>3</sup> 15 Minuten TWA: 500 ppm 8 Stunden TWA: 960 mg/m <sup>3</sup> 8 Stunden	TWA: 1900 mg/m <sup>3</sup> 8 godzinach	TWA: 500 ppm 8 timer TWA: 950 mg/m <sup>3</sup> 8 timer STEL: 625 ppm 15 minutter. value calculated STEL: 1187.5 mg/m <sup>3</sup> 15 minutter. value calculated

Component	Bulgaria	Croatia	Ireland	Cyprus	Czech Republic
Ethyl alcohol	TWA: 1000 mg/m <sup>3</sup>	TWA-GVI: 1000 ppm 8 satima. TWA-GVI: 1900 mg/m <sup>3</sup> 8 satima.	STEL: 1000 ppm 15 min		TWA: 1000 mg/m <sup>3</sup> 8 hodinách. Ceiling: 3000 mg/m <sup>3</sup>

Component	Estonia	Gibraltar	Greece	Hungary	Iceland
Ethyl alcohol	TWA: 500 ppm 8 tundides. TWA: 1000 mg/m <sup>3</sup> 8 tundides. STEL: 1000 ppm 15 minutites. STEL: 1900 mg/m <sup>3</sup> 15 minutites.		TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	STEL: 3800 mg/m <sup>3</sup> 15 percekben. CK TWA: 1900 mg/m <sup>3</sup> 8 óraban. AK	TWA: 1000 ppm 8 klukkustundum. TWA: 1900 mg/m <sup>3</sup> 8 klukkustundum. Ceiling: 2000 ppm Ceiling: 3800 mg/m <sup>3</sup>

Component	Latvia	Lithuania	Luxembourg	Malta	Romania
Ethyl alcohol	TWA: 1000 mg/m <sup>3</sup>	TWA: 500 ppm IPRD TWA: 1000 mg/m <sup>3</sup> IPRD STEL: 1000 ppm STEL: 1900 mg/m <sup>3</sup>			TWA: 1000 ppm 8 ore TWA: 1900 mg/m <sup>3</sup> 8 ore STEL: 5000 ppm 15 minute STEL: 9500 mg/m <sup>3</sup> 15 minute

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

Component	Russia	Slovak Republic	Slovenia	Sweden	Turkey
Ethyl alcohol	TWA: 1000 mg/m <sup>3</sup> 2391 MAC: 2000 mg/m <sup>3</sup>	Ceiling: 1920 mg/m <sup>3</sup> TWA: 500 ppm TWA: 960 mg/m <sup>3</sup>	TWA: 960 mg/m <sup>3</sup> 8 urah TWA: 500 ppm 8 urah STEL: 1000 ppm 15 minutah STEL: 1920 mg/m <sup>3</sup> 15 minutah	Indicative STEL: 1000 ppm 15 minuter Indicative STEL: 1900 mg/m <sup>3</sup> 15 minuter TLV: 500 ppm 8 timmar. NGV TLV: 1000 mg/m <sup>3</sup> 8 timmar. NGV	

## Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

## Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS70 General methods for sampling airborne gases and vapours

MDHS 88 Volatile organic compounds in air. Laboratory method using diffusive samplers, solvent desorption and gas chromatography

MDHS 96 Volatile organic compounds in air - Laboratory method using pumped solid sorbent tubes, solvent desorption and gas chromatography

## Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)

See table for values

Component	Acute effects local (Oral)	Acute effects systemic (Oral)	Chronic effects local (Oral)	Chronic effects systemic (Oral)
Ethyl alcohol 64-17-5 ( 70 )		DNEL = 87 mg/kg bw/d		

Component	Acute effects local (Dermal)	Acute effects systemic (Dermal)	Chronic effects local (Dermal)	Chronic effects systemic (Dermal)
Ethyl alcohol 64-17-5 ( 70 )				DNEL = 343mg/kg bw/day

Component	Acute effects local (Inhalation)	Acute effects systemic (Inhalation)	Chronic effects local (Inhalation)	Chronic effects systemic (Inhalation)
Ethyl alcohol 64-17-5 ( 70 )	DNEL = 1900mg/m <sup>3</sup>			DNEL = 950mg/m <sup>3</sup>

## Predicted No Effect Concentration (PNEC)

See values below.

## 8.2. Exposure controls

### Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

## Personal protective equipment

### Eye Protection

Goggles (European standard - EN 166)

### Hand Protection

Protective gloves

Glove material	Breakthrough time	Glove thickness	EU standard	Glove comments
Nitrile rubber Neoprene Natural rubber PVC	See manufacturers recommendations	-	EN 374	(minimum requirement)

### Skin and body protection

Long sleeved clothing.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

### Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.  
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

### Large scale/emergency use

Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced  
**Recommended Filter type:** Organic gases and vapours filter Type A Brown conforming to EN14387

### Small scale/Laboratory use

Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.  
**Recommended half mask:-** Valve filtering: EN405; or; Half mask: EN140; plus filter, EN 141  
When RPE is used a face piece Fit Test should be conducted

### Environmental exposure controls

Prevent product from entering drains. Do not allow material to contaminate ground water system.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

#### Physical State

Liquid

#### Appearance

##### Odor

No information available

##### Odor Threshold

No data available

##### Melting Point/Range

-48 - -37 °C / -54.4 - -34.6 °F

##### Softening Point

No data available

##### Boiling Point/Range

85 - 90 °C / 185 - 194 °F

@ 760 mmHg

##### Flammability (liquid)

Highly flammable

On basis of test data

##### Flammability (solid,gas)

Not applicable

Liquid

##### Explosion Limits

No data available

##### Flash Point

21 - 22 °C / 69.8 - 71.6 °F

**Method -** No information available

##### Autoignition Temperature

No data available

##### Decomposition Temperature

No data available

##### pH

No information available

##### Viscosity

No data available

##### Water Solubility

Soluble

##### Solubility in other solvents

No information available

##### Partition Coefficient (n-octanol/water)

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

<b>Component</b>	<b>log Pow</b>	
Ethyl alcohol	-0.32	
<b>Vapor Pressure</b>	No data available	
<b>Density / Specific Gravity</b>	0.878-0.893 @ 20°C	
<b>Bulk Density</b>	Not applicable	Liquid
<b>Vapor Density</b>	1.59	(Air = 1.0)
<b>Particle characteristics</b>	Not applicable (liquid)	

## 9.2. Other information

<b>Explosive Properties</b>	Not explosive Vapors may form explosive mixtures with air
<b>Oxidizing Properties</b>	Not oxidising

## SECTION 10: STABILITY AND REACTIVITY

<b>10.1. Reactivity</b>	None known, based on information available
-------------------------	--

<b>10.2. Chemical stability</b>	Stable under normal conditions.
---------------------------------	---------------------------------

## 10.3. Possibility of hazardous reactions

<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

<b>10.4. Conditions to avoid</b>	Incompatible products. Excess heat. Keep away from open flames, hot surfaces and sources of ignition.
----------------------------------	---

<b>10.5. Incompatible materials</b>	Strong oxidizing agents.
-------------------------------------	--------------------------

<b>10.6. Hazardous decomposition products</b>	Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).
---	--

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

<b>Product Information</b>	No acute toxicity information is available for this product. Data is for major component in product
----------------------------	---

<b>(a) acute toxicity;</b>	
<b>Oral</b>	Based on ATE data, the classification criteria are not met ATE = 17450 mg/kg
<b>Dermal</b>	No data available
<b>Inhalation</b>	Based on ATE data, the classification criteria are not met ATE = 202 mg/l

### Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	LD50 = 10470 mg/kg OECD 401 (Rat) 3450 mg/kg ( Mouse )	-	LC50 = 117-125 mg/l (4h) OECD 403 (rat) 20000 ppm/10H (rat)
Water	-	-	-



# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

**(b) skin corrosion/irritation;** Based on available data, the classification criteria are not met  
**Test method** OECD 404  
**Test species** rabbit  
**Observational endpoint** Erythema/Eschar = 0  
 Oedema = 0  
 No skin irritation

**(c) serious eye damage/irritation;** Category 2  
**Test method** OECD 405  
**Test species** rabbit  
**Observation end point** Cornea opacity = 1.33-1.66  
 Iris lesion = 0.33-1  
 Redness of the conjunctivae = 2.33-2.66  
 Severe eye irritant

**(d) respiratory or skin sensitization;**  
**Respiratory** No data available  
**Skin** Based on available data, the classification criteria are not met

Component	Test method	Test species	Study result
Ethyl alcohol 64-17-5 ( 70 )	Mouse Ear Swelling Test (MEST)	mouse	non-sensitising
	OECD Test Guideline 429 Local Lymph Node Assay	mouse	non-sensitising

**(e) germ cell mutagenicity;** Based on available data, the classification criteria are not met

Component	Test method	Test species	Study result
Ethyl alcohol 64-17-5 ( 70 )	AMES test OECD Test Guideline 471	in vitro Bacteria	negative
	Gene cell mutation OECD Test Guideline 476	in vitro Mammalian	negative

**(f) carcinogenicity;** Based on available data, the classification criteria are not met  
 Ethanol has been shown to be carcinogenic in long-term studies only when consumed and abused as an alcoholic beverage. The table below indicates whether each agency has listed any ingredient as a carcinogen.

**(g) reproductive toxicity;** Based on available data, the classification criteria are not met

Component	Test method	Test species / Duration	Study result
Ethyl alcohol 64-17-5 ( 70 )	OECD Test Guideline 416	Oral / mouse 2 Generation	NOAEL = 13.8 g/kg/day
	OECD Test Guideline 414	Inhalation / Rat	NOAEC = 16000 ppm

**(h) STOT-single exposure;** Based on available data, the classification criteria are not met

**(i) STOT-repeated exposure;** Based on available data, the classification criteria are not met

**Test method** OECD Test No. 408  
**Test species / Duration** 90 days / Rat

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

**Study result**  
**Route of exposure**  
**Target Organs**

NOAEL = 1730 mg/kg bw/day  
Oral  
None known.

**(j) aspiration hazard;** Based on available data, the classification criteria are not met

**Symptoms / effects, both acute and delayed** Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

## 11.2. Information on other hazards

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity effects** Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

Component	Freshwater Fish	Water Flea	Freshwater Algae
Ethyl alcohol	Fathead minnow (Pimephales promelas) LC50 = 14200 mg/L/96h	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h	EC50 (72h) = 275 mg/l (Chlorella vulgaris)

Component	Microtox	M-Factor
Ethyl alcohol	Photobacterium phosphoreum: EC50 = 34634 mg/L/30 min Photobacterium phosphoreum: EC50 = 35470 mg/L/5 min	

### 12.2. Persistence and degradability

**Persistence** Readily biodegradable  
Persistence is unlikely, based on information available.

Component	Degradability
Ethyl alcohol 64-17-5 (70)	OECD 301E = 94%

### 12.3. Bioaccumulative potential

Bioaccumulation is unlikely

Component	log Pow	Bioconcentration factor (BCF)
Ethyl alcohol	-0.32	No data available

### 12.4. Mobility in soil

The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces. Will likely be mobile in the environment due to its volatility. Disperses rapidly in air.

### 12.5. Results of PBT and vPvB assessment

No data available for assessment.

### 12.6. Endocrine disrupting properties

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

**12.7. Other adverse effects**  
**Persistent Organic Pollutant**  
**Ozone Depletion Potential**

This product does not contain any known or suspected substance  
This product does not contain any known or suspected substance

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

**Waste from Residues/Unused Products**

Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations.

**Contaminated Packaging**

Dispose of this container to hazardous or special waste collection point. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep product and empty container away from heat and sources of ignition.

**European Waste Catalogue (EWC)**

According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

**Other Information**

Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Can be landfilled or incinerated, when in compliance with local regulations.

**Switzerland - Waste Ordinance**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance, ADWO) SR 814.600  
<https://www.fedlex.admin.ch/eli/cc/2015/891/en>

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

**14.1. UN number** UN1170  
**14.2. UN proper shipping name** Ethanol solution  
**14.3. Transport hazard class(es)** 3  
**14.4. Packing group** II

### ADR

**14.1. UN number** UN1170  
**14.2. UN proper shipping name** Ethanol solution  
**14.3. Transport hazard class(es)** 3  
**14.4. Packing group** II

### IATA

**14.1. UN number** UN1170  
**14.2. UN proper shipping name** Ethanol solution  
**14.3. Transport hazard class(es)** 3  
**14.4. Packing group** II

**14.5. Environmental hazards** No hazards identified

**14.6. Special precautions for user** No special precautions required.

**14.7. Maritime transport in bulk according to IMO instruments** Not applicable, packaged goods

## SECTION 15: REGULATORY INFORMATION

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

## 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

Component	CAS No	EINECS	ELINCS	NLP	IECSC	TCSI	KECL	ENCS	ISHL
Ethyl alcohol	64-17-5	200-578-6	-	-	X	X	KE-13217	X	X
Water	7732-18-5	231-791-2	-	-	X	X	KE-35400	X	-

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	DSL	NDSL	AICS	NZIoC	PICCS
Ethyl alcohol	64-17-5	X	ACTIVE	X	-	X	X	X
Water	7732-18-5	X	ACTIVE	X	-	X	X	X

Legend: X - Listed '-' - Not Listed

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

### Authorisation/Restrictions according to EU REACH

Not applicable

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Ethyl alcohol	64-17-5	-	-	-
Water	7732-18-5	-	-	-

### Seveso III Directive (2012/18/EC)

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements
Ethyl alcohol	64-17-5	Not applicable	Not applicable
Water	7732-18-5	Not applicable	Not applicable

### Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals

Not applicable

### Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

### National Regulations

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

### WGK Classification

Water endangering class = 1 (self classification)

Component	Germany - Water Classification (AwSV)	Germany - TA-Luft Class
Ethyl alcohol	WGK1	

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

Component	France - INRS (Tables of occupational diseases)
Ethyl alcohol	Tableaux des maladies professionnelles (TMP) - RG 84

## Swiss Regulations

Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).

Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

Component	Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81)	Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC)	Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure
Ethyl alcohol 64-17-5 ( 70 )		Group I	

## 15.2. Chemical safety assessment

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

## SECTION 16: OTHER INFORMATION

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

H319 - Causes serious eye irritation

H225 - Highly flammable liquid and vapor

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**TWA** - Time Weighted Average

**IARC** - International Agency for Research on Cancer

Predicted No Effect Concentration (PNEC)

**LD50** - Lethal Dose 50%

**EC50** - Effective Concentration 50%

**POW** - Partition coefficient Octanol:Water

**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

### Key literature references and sources for data

<https://echa.europa.eu/information-on-chemicals>

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

**VOC** - (volatile organic compound)

### Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

**Physical hazards** On basis of test data

**Health Hazards** Calculation method

**Environmental hazards** Calculation method

### Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and

# SAFETY DATA SHEET

Ethanol, 70%, technical

Revision Date 13-Oct-2023

hygiene.

Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.

First aid for chemical exposure, including the use of eye wash and safety showers.

Creation Date	30-Jun-2011
Revision Date	13-Oct-2023
Revision Summary	Not applicable.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.  
COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No  
1907/2006 .**

**For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2,  
Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and  
Preparations).**

## Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of Safety Data Sheet**