

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

### 1.1. Product identifier

Product form	: Substance
Trade name	: Ethanol max. 24% vol.
IUPAC name	: Ethanol
EC Index-No.	: 603-002-00-5
EC-No.	: 200-578-6
CAS-No.	: 64-17-5
REACH registration No.	: 01-2119457610-43-xxxx
Formula	: C2H6O

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

#### 1.2.1. Relevant identified uses

Main use category	: Industrial use, Professional use
Use of the substance/mixture	: Food sector: Beverages, food products such as mildew/antibacterial, alcohol for his use shall conform to EC Regulation 110/2008. Relevant indentified uses: (non food sector): Function: solvent for industrial applications and raw material for fuel, antifreeze fluids, detergents, inks, and cosmetics. Used in chemical laboratory and manufacturing chemicals. Heat transfer agent. Intermediate. Food sector: Beverages, food products such as mildew/antibacterial, alcohol for his use shall conform to EC Regulation 110/2008. Relevant indentified uses: (non food sector): Function: solvent for industrial applications and raw material for fuel, antifreeze fluids, detergents, inks, and cosmetics. Used in chemical laboratory and manufacturing chemicals. Heat transfer agent. Intermediate.

#### 1.2.2. Uses advised against

No additional information available

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

Sasma  
Willem Dreeslaan 301  
2729 NE Zoetermeer – Zuid-Holland  
Netherlands  
T +31 79 363 30 64  
[sales@sasmabv.com](mailto:sales@sasmabv.com) - [www.sasmabv.com](http://www.sasmabv.com)

### 1.4. Emergency telephone number

Emergency number	: Worldwide: For Hazardous Materials (or Dangerous Goods) Incident, Spill, Leak, Exposure, or Accident – Call NCEC Day or Night(24/7) +441865407333 - SASMA29003-NCEC
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Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2	H225
Serious eye damage/eye irritation, Category 2	H319
Full text of H- and EUH-statements: see section 16	

# Ethanol max. 24% vol.

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye irritation.

## 2.2. Label elements

### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02

GHS07

Signal word (CLP)

: Danger

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour.

H319 - Causes serious eye irritation.

Precautionary statements (CLP)

: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P280 - Wear eye protection, protective gloves, protective clothing.

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

Listed on CLP Annex VI

: EC Index-No.: 603-002-00-5

## 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

Component	
Ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Water	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Name	: Ethanol
CAS-No.	: 64-17-5
EC-No.	: 200-578-6
EC Index-No.	: 603-002-00-5

Name	Product identifier	%
Water	-	$\geq 76$
Ethanol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 REACH-no: 01-2119457610-43-xxxx	$\leq 24$

### 3.2. Mixtures

Not applicable

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according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Respiratory arrest: artificial respiration or oxygen. Vomiting: prevent asphyxia/aspiration pneumonia. If medical advice is needed, have product container or label at hand. Keep watching the victim. Check the vital functions. Keep the victim calm, avoid physical strain. IF exposed or concerned: Get medical advice/attention. Prevent cooling by covering the victim (no warming up).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Respiratory problems: consult a doctor/medical service. Give oxygen or artificial respiration if necessary. keep the victim calm, in a half-sitting position.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell. Do not induce vomiting.

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

Symptoms/effects after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.
Symptoms/effects after skin contact	: Contact during a long period may cause light irritation.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Central nervous system depression. Nausea. Vomiting.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Solid water jet ineffective as extinguishing medium.

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

Fire hazard	: Highly flammable liquid and vapour.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Upon combustion: CO and CO <sub>2</sub> are formed.

#### 5.3. Advice for firefighters

Precautionary measures fire	: Eliminate all ignition sources if safe to do so. Keep container closed when not in use. Keep container tightly closed and away from heat, sparks and flame. Keep cool. Protect from sunlight.
Firefighting instructions	: Eliminate all ignition sources if safe to do so. Keep people away. Isolate the area where it burns and do not stand unnecessary entrance. Use water spray around containers that have been exposed to fire and put it on the fire cool the affected area until the fire is extinguished and the danger of re-ignition has passed. Fight fire from protected place or at a safe distance. Consider using unmanned water cannons. Immediately remove all personnel from the area upon detection the safety valve or discoloration of the container. Burning liquids can be extinguished by diluting with water. Do not use a direct water jet. This can spread the fire. Move container away from fire area, if this can be done without danger. Burning liquids may be removed with running water to protect personnel and damage to minimize property. Take account of environmentally hazardous firefighting water.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

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### SECTION 6: Accidental release measures

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

General measures : If leakage cannot be stopped, evacuate the area. Ensure adequate ventilation. Avoid breathing vapors / spray and contact with skin and eyes. Not spilled material touch or walk in. Eliminate all sources of ignition. Keep away from heat, sparks and open fire. Wear protective clothing as described in Section 8 of this Safety Data Sheet.

##### 6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.  
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

##### 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".

#### 6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses. Notify authorities if product enters sewers or public waters.

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

For containment : Cover spill with non combustible material, e.g.: sand, earth, vermiculite. Do not use compressed air for pumping over spills. Do not touch or walk on the spilled product. Provide adequate ventilation.  
Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.  
Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Additional hazards when processed : In use, may form flammable vapour-air mixture. Handle empty containers with care because residual vapours are flammable. Flammable vapours may accumulate in the container. Do not pierce or burn, even after use.  
Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes.  
Hygiene measures : 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 : Ground/bond container and receiving equipment.  
Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.  
Incompatible products : Oxidizing agent. Strong acids.  
Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: ignition sources. heat sources.  
Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. ignition sources. highly flammable materials. combustible materials.  
Storage area : Keep out of direct sunlight. Store away from heat. Fireproof storeroom. Store in a dark area. Store in a dry area. Store in a well-ventilated place. Store in a cool area.  
Packaging materials : SUITABLE MATERIAL: HDPE, iron, carbon steel, synthetic material, metal, polypropylene, stainless steel, glass. MATERIAL TO AVOID: aluminium, PVC, zinc, copper.

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### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

Ethanol max. 24% vol. (64-17-5)	
<b>DNEL/DMEL (Workers)</b>	
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	950 mg/m <sup>3</sup>
Long-term - local effects, inhalation	1900 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Long-term - systemic effects, oral	87 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	114 mg/m <sup>3</sup>
Long-term - systemic effects, dermal	206 mg/kg bodyweight/day
Long-term - local effects, inhalation	950 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	0.63 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	380 mg/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	580 mg/l

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

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### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Wear recommended personal protective equipment.

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety goggles		With side shields	EN 166

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear fire/flame resistant/retardant clothing. Chemical resistant safety shoes

##### Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Butyl rubber, Nitrile rubber (NBR)	6 (> 480 minutes)	0.5		EN ISO 374

##### Other skin protection

##### Materials for protective clothing:

Excellent resistance: Butyl rubber. Less resistance: Chloroprene rubber

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
Gas mask	Type A - High-boiling (>65 °C) organic compounds		EN 14387

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment. Ethanol is classed as a VOC under Directive 99/13/EC. Abatement measures such as incineration or recovery should be used in combination with emission controls to ensure compliance with this legislation.

## SECTION 9: Physical and chemical properties

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

Physical state : Liquid

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Colour	: Colourless.
Appearance	: Clear liquid.
Molecular mass	: 46.07 g/mol
Odour	: Alcohol odour. Pleasant odour.
Odour threshold	: 100 ppm 18.8 mg/m <sup>3</sup>
Melting point	: -12 °C
Freezing point	: Not available
Boiling point	: 94.7 °C
Flammability	: Not applicable
Explosive properties	: the study does not need to be conducted because there are no chemical groups present in the molecule which are associated with explosive properties.
Oxidising properties	: the study does not need to be conducted because there are no chemical groups present in the molecule which are associated with oxidising properties and hence, the classification procedure does not need to be applied.
Explosive limits	: Not available
Lower explosion limit	: 2.5 vol %
Upper explosion limit	: 13.5 vol %
Flash point	: 33 °C
Auto-ignition temperature	: 363
Decomposition temperature	: Not available
pH	: 7
pH solution	: 10 g/l
Viscosity, kinematic	: 1.264 mm <sup>2</sup> /s
Viscosity, dynamic	: 1.2 mPa·s
Solubility	: Soluble in water. Soluble in ether. Soluble in acetone. Soluble in chloroform. Soluble in oils/fats. Soluble in methanol. Soluble in acids. Water: Full
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: -0.35
Vapour pressure	: 5726 Pa @ 20° C
Vapour pressure at 50°C	: Not available
Density	: 0.949 g/cm <sup>3</sup> @ 25 °C
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

## 9.2. Other information

### 9.2.1. Information with regard to physical hazard classes

No additional information available

### 9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	: 2.4
Relative evaporation rate (ether=1)	: 8.3
Specific conductivity	: < 1 µS/m
VOC content	: 175 – 190 g/l
Refractive index	: 1.361 @ 20 °C
Other properties	: Gas/vapour heavier than air at 20°C, Clear, Slightly volatile

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapour.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Strong oxidizing agents, Peroxides, Alkali metals, Ammonia, Hydrogen peroxide.

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### 10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

### 10.5. Incompatible materials

Oxidizing agent. Strong acids.

### 10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon oxide.

## SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### Ethanol max. 24% vol. (64-17-5)

LD50 oral rat	6.2 – 15 g/kg
LD50 dermal rabbit	16000 mg/kg
LC50 Inhalation - Rat (Vapours)	> 50 mg/l/4h

#### Ethanol (64-17-5)

LD50 oral rat	10470 mg/kg
LD50 dermal rabbit	17100 mg/kg
LC50 Inhalation - Rat (Vapours)	124.7 mg/l/4h

Skin corrosion/irritation : Not classified  
pH: 7

#### Ethanol (64-17-5)

pH	7
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#### Water

pH	7 (7 – 8.5)
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Serious eye damage/irritation : Causes serious eye irritation.  
pH: 7

#### Ethanol (64-17-5)

pH	7
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#### Water

pH	7 (7 – 8.5)
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Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

#### Ethanol max. 24% vol. (64-17-5)

NOAEL (chronic, oral, animal/male, 2 years)	> 3000 mg/kg bodyweight Rat
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Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified



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Ethanol max. 24% vol. (64-17-5)	
Viscosity, kinematic	1.264 mm <sup>2</sup> /s
Ethanol (64-17-5)	
Viscosity, kinematic	1.516 mm <sup>2</sup> /s

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: Endocrine disrupting properties  
The substance has not been identified as having endocrine disrupting properties in accordance with Regulation (EU) 2017/2100 or Regulation 2018/605, nor has it been included in the Candidate List of Substances of Very High Concern under EU REACH Article 59 due to this property.

#### 11.2.2. Other information

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.  
Hazardous to the aquatic environment, short-term : Not classified  
(acute)  
Hazardous to the aquatic environment, long-term : Not classified  
(chronic)

Ethanol max. 24% vol. (64-17-5)	
LC50 - Fish [1]	13 g/l
EC50 - Crustacea [1]	12.3 g/l
EC50 72h - Algae [1]	275 mg/l
Ethanol (64-17-5)	
LC50 - Fish [1]	14200 mg/l
EC50 - Crustacea [1]	5012 mg/l
EC50 72h - Algae [1]	275 mg/l

### 12.2. Persistence and degradability

Ethanol max. 24% vol. (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.
Chemical oxygen demand (COD)	1.7 g O <sub>2</sub> /g substance
ThOD	2.1 g O <sub>2</sub> /g substance
Biodegradation	84 %
Ethanol (64-17-5)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. No (test)data on mobility of the substance available.
Chemical oxygen demand (COD)	1.7 g O <sub>2</sub> /g substance
ThOD	2.1 g O <sub>2</sub> /g substance

# Ethanol max. 24% vol.

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### Ethanol (64-17-5)

Biodegradation	60 % in 5 days
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### 12.3. Bioaccumulative potential

#### Ethanol max. 24% vol. (64-17-5)

Partition coefficient n-octanol/water (Log Pow)	-0.35
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Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
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### Ethanol (64-17-5)

Partition coefficient n-octanol/water (Log Pow)	0.35
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### 12.4. Mobility in soil

#### Ethanol max. 24% vol. (64-17-5)

Mobility in soil	Release to air or water:	Ethanol is volatile and water soluble and is dispersed rapidly.
	Release to soil or sediments:	Ethanol is poorly absorbed and evaporates at a rapid rate.

### 12.5. Results of PBT and vPvB assessment

#### Ethanol max. 24% vol. (64-17-5)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### Component

Ethanol (64-17-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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Water	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : See 2.3 and 11.2.

### 12.7. Other adverse effects

Additional information : No other effects known. Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.  
Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Product/Packaging disposal recommendations : Do not burn empty packaging. Do not cut using a blowtorch. Beware of residues or vapours which remain in the drums.  
Additional information : Flammable vapours may accumulate in the container.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

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ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

Special transport precautions : Special Provision 144 applies

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	Ethanol ; Ethanol
3(b)	Ethanol ; Ethanol
40.	Ethanol ; Ethanol

##### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

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### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

### PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

### VOC Directive (2004/42)

VOC content : 175 – 190 g/l

### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

### 15.1.2. National regulations

#### France

Occupational diseases	
Code	Description
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

#### Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 96).  
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

#### Netherlands

ABM category : A(4) - low hazard for aquatic organisms, may have longterm hazardous effects in aquatic environment  
SZW-lijst van kankerverwekkende stoffen : Ethanol is listed  
SZW-lijst van mutagene stoffen : The substance is not listed  
SZW-lijst van reprotoxische stoffen – Borstvoeding : Ethanol is listed  
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : Ethanol is listed  
SZW-lijst van reprotoxische stoffen – Ontwikkeling : Ethanol is listed

#### Denmark

Class for fire hazard : Class II-1  
Store unit : 5 liter  
Classification remarks : R10 <H225;H319>; Emergency management guidelines for the storage of flammable liquids must be followed

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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### SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
	Adverse health effects caused by endocrine disrupting properties	Added	
	Supersedes	Added	
	Revision date	Added	
	Issue date	Modified	
1.1	Trade name	Added	
9.1	Boiling point	Modified	
9.1	Flash point	Modified	
9.1	Density	Modified	
9.1	Melting point	Modified	
12.6	Adverse effects on the environment caused by endocrine disrupting properties	Added	

Abbreviations and acronyms:	
CAS-No.	Chemical Abstract Service number
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
N.O.S.	Not Otherwise Specified
NOAEC	No-Observed Adverse Effect Concentration

# Ethanol max. 24% vol.

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
SDS	Safety Data Sheet
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.