

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Porcelain Silane

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
Use of the substance/mixture : Silane solution used after etchant to enhance the bonding of resin material.

##### 1.2.2. Uses advised against

Restrictions on use : None known

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

Supplier:

Emergo Europe  
Prinsessegracht 20  
2514 AP The Hague  
The Netherlands  
+31 (0) 70 345 8570

Manufacturer:

Inter-Med, Inc. / Vista Dental Products  
2200 South Street  
Racine, WI 53404  
T: (877)-418-4782

#### 1.4. Emergency telephone number

Emergency number : 800-424-9300 (North America) / +1 (703) 527-3887 (International)

### 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 1 H318  
Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Highly flammable liquid and vapour. Causes serious eye damage..

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS02

GHS05

Signal word (CLP) : Danger  
Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.  
H318 - Causes serious eye damage.  
Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P235 - Keep cool.  
P280 - Wear eye protection, protective clothing, protective gloves.  
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.  
P370+P378 - In case of fire: Use media other than water to extinguish.  
P403+P235 - Store in a well-ventilated place. Keep cool.

#### 2.3. Other hazards not contributing to the classification

No additional information available

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethyl alcohol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	96	Flam. Liq. 2, H225 Eye Irrit. 2, H319
[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane	(CAS-No.) 2530-83-8 (EC-No.) 219-784-2	4	Eye Dam. 1, H318

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give artificial respiration if necessary. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Wash off immediately with soap and plenty of water. Obtain medical attention if irritation persists.
First-aid measures after eye contact	: In case of eye contact, immediately rinse with clean water for 20-30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical advice.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Get medical advice/attention.

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

Symptoms/effects after inhalation	: Inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.
Symptoms/effects after skin contact	: May cause slight temporary irritation.
Symptoms/effects after eye contact	: Causes serious eye burns.
Symptoms/effects after ingestion	: May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

#### 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	: None known.

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

Fire hazard	: Highly flammable liquid and vapour. On combustion, forms: carbon oxides (CO and CO <sub>2</sub> ).
Explosion hazard	: May form flammable vapour-air mixture. Vapours may travel long distances along ground before igniting/flashing back to vapour source.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

#### 5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire.
Protective equipment for firefighters	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

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

General measures	: Avoid contact with skin, eyes and clothing. Keep away from open flames, hot surfaces and sources of ignition.
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##### 6.1.1. For non-emergency personnel

Protective equipment	: Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. In case of inadequate ventilation wear respiratory protection.
Emergency procedures	: Stop leak if safe to do so. Ventilate spillage area. Take precautionary measures against static discharge. Eliminate all ignition sources if safe to do so.

#### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of residues refer to section 13: "Disposal considerations".

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.

Precautions for safe handling : Avoid contact with eyes. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical/ventilating/lighting equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Handle in accordance with good industrial hygiene and safety practice.

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

Technical measures : Use explosion-proof electrical/ventilating/lighting equipment. Keep away from open flames, hot surfaces and sources of ignition.

Storage conditions : Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible materials : Caustic products. Metals. Sulfides (total sum of dimethyl disulfide, dimethyl sulfide and methyl mercaptan). Sulfites.

### 7.3. Specific end use(s)

See Heading 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Ethyl alcohol (64-17-5)		
Austria	Local name	Ethanol
Austria	MAK (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Austria	MAK (ppm)	1000 ppm
Austria	MAK Short time value (mg/m <sup>3</sup> )	3800 mg/m <sup>3</sup>
Austria	MAK Short time value (ppm)	2000 ppm
Austria	OEL - Ceilings (mg/m <sup>3</sup> )	3800 mg/m <sup>3</sup>
Austria	OEL - Ceilings (ppm)	2000 ppm
Austria	Regulatory reference	BGBl. II Nr. 186/2015
Belgium	Local name	Alcool éthylique # Ethanol
Belgium	Limit value (mg/m <sup>3</sup> )	1907 mg/m <sup>3</sup>
Belgium	Limit value (ppm)	1000 ppm
Belgium	Regulatory reference	Koninklijk besluit/Arrêté royal 02/09/2018
Bulgaria	Local name	Етилов алкохол
Bulgaria	OEL TWA (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Bulgaria	Regulatory reference	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр.73 от 4 септември 2018 г.)
Croatia	Local name	Etanol; (Etil-alkohol)
Croatia	GVI (granična vrijednost izloženosti) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Croatia	GVI (granična vrijednost izloženosti) (ppm)	1000 ppm
Croatia	Naznake (HR)	F (lako zapaljivo)
Croatia	Regulatory reference	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN, br. 75/13)
Czech Republic	Local name	Ethanol (Ethylalkohol)

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Ethyl alcohol (64-17-5)		
Czech Republic	Expoziční limity (PEL) (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (PEL) (ppm)	530 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m <sup>3</sup> )	3000 mg/m <sup>3</sup>
Czech Republic	Expoziční limity (NPK-P) (ppm)	1600 ppm
Czech Republic	Regulatory reference	Nařízení vlády č. 361/2007 Sb. (zpracovány změny č. 246/2018 Sb.)
Denmark	Local name	Ethanol (Ethylalkohol)
Denmark	Grænseværdie (langvarig) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Denmark	Grænseværdie (langvarig) (ppm)	1000 ppm
Denmark	Regulatory reference	BEK nr 655 af 31/05/2018
Estonia	Local name	Etanool (etüülalkohol)
Estonia	OEL TWA (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Estonia	OEL TWA (ppm)	500 ppm
Estonia	OEL STEL (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Estonia	OEL STEL (ppm)	1000 ppm
Estonia	Regulatory reference	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
Finland	Local name	Etanoli
Finland	HTP-arvo (8h) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Finland	HTP-arvo (8h) (ppm)	1000 ppm
Finland	HTP-arvo (15 min)	2500 mg/m <sup>3</sup>
Finland	HTP-arvo (15 min) (ppm)	1300 ppm
Finland	Regulatory reference	HTP-ARVOT 2018 (Sosiaali- ja terveystieteiden ministeriö)
France	Local name	Alcool éthylique
France	VME (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
France	VME (ppm)	1000 ppm
France	VLE (mg/m <sup>3</sup> )	9500 mg/m <sup>3</sup>
France	VLE (ppm)	5000 ppm
France	Note (FR)	Valeurs recommandées/admises
France	Regulatory reference	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany	TRGS 900 Local name	Ethanol
Germany	TRGS 900 Occupational exposure limit value (mg/m <sup>3</sup> )	960 mg/m <sup>3</sup>
Germany	TRGS 900 Occupational exposure limit value (ppm)	500 ppm
Germany	TRGS 900 Limitation of exposure peaks	2(II)
Germany	TRGS 900 Remark	DFG;Y
Germany	TRGS 900 Regulatory reference	TRGS900
Germany	TRGS 910 Acceptable concentration notes	
Greece	Local name	Αιθνόλη
Greece	OEL TWA (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Greece	OEL TWA (ppm)	1000 ppm
Greece	Regulatory reference	Π.Δ. 90/1999
Hungary	Local name	ETIL-ALKOHOL
Hungary	AK-érték	1900 mg/m <sup>3</sup>
Hungary	CK-érték	7600 mg/m <sup>3</sup>

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Ethyl alcohol (64-17-5)		
Hungary	Megjegyzések (HU)	IV. (NAGYON GYENGE KÁROSÍTÓ HATÁSÚ ANYAGOK (ÁK > 500 ml/m <sup>3</sup> ))
Hungary	Regulatory reference	25/2000. (IX. 30.) EüM–SZCSM együttes rendelet a munkahelyek kémiai biztonságáról
Ireland	Local name	Ethanol
Ireland	OEL (8 hours ref) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Ireland	OEL (8 hours ref) (ppm)	1000 ppm
Ireland	OEL (15 min ref) (ppm)	1000 ppm
Ireland	Regulatory reference	Code of Practice for the Chemical Agents Regulations 2018
Latvia	Local name	Etilspirts (etanols)
Latvia	OEL TWA (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Latvia	Regulatory reference	Ministru kabineta 2007.gada 15.maija noteikumi Nr.325
Lithuania	Local name	Etanolis (etilo alkoholis)
Lithuania	IPRV (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Lithuania	IPRV (ppm)	500 ppm
Lithuania	TPRV (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Lithuania	TPRV (ppm)	1000 ppm
Lithuania	Regulatory reference	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Netherlands	Local name	Ethanol
Netherlands	Grenswaarde TGG 8H (mg/m <sup>3</sup> )	260 mg/m <sup>3</sup>
Netherlands	Grenswaarde TGG 15MIN (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Netherlands	Remark (MAC)	H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een H-aanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
Netherlands	Regulatory reference	Arbeidsomstandighedenregeling 2018
Poland	Local name	Etanol (alkohol etylowy)
Poland	NDS (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Poland	Regulatory reference	Dz. U. 2018 poz. 1286
Portugal	Local name	Etanol (Álcool etílico)
Portugal	OEL TWA (ppm)	1000 ppm
Portugal	OEL STEL (ppm)	1000 ppm
Slovakia	Regulatory reference	Norma Portuguesa NP 1796:2014
Romania	Local name	Alcool etilic/Etanol
Romania	OEL TWA (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Romania	OEL TWA (ppm)	1000 ppm
Romania	OEL STEL (mg/m <sup>3</sup> )	9500 mg/m <sup>3</sup>
Romania	OEL STEL (ppm)	5000 ppm
Romania	Regulatory reference	Hotărârea nr. 584/2018
Slovakia	Local name	Etylalkohol (etanol)
Slovakia	NPHV (priemerná) (mg/m <sup>3</sup> )	960 mg/m <sup>3</sup>
Slovakia	NPHV (priemerná) (ppm)	500 ppm
Slovakia	OEL STEL (mg/m <sup>3</sup> )	1920 mg/m <sup>3</sup>

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Ethyl alcohol (64-17-5)		
Slovakia	OEL STEL (ppm)	1000 ppm
Slovakia	NPHV (Hraničná) (mg/m <sup>3</sup> )	1920 mg/m <sup>3</sup>
Slovakia	Regulatory reference	Nariadenie vlády č. 33/2018 Z.z.
Slovenia	Local name	etanol (etilalkohol)
Slovenia	OEL TWA (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Slovenia	OEL TWA (ppm)	1000 ppm
Slovenia	OEL STEL (mg/m <sup>3</sup> )	7600 mg/m <sup>3</sup>
Slovenia	OEL STEL (ppm)	4000 ppm
Slovenia	KTV factor SL	4
Slovenia	Regulatory reference	Uradni list RS, št. 38/2015 z dne 4.6.2015
Spain	Local name	Etanol (Alcohol etílico)
Spain	VLA-ED (mg/m <sup>3</sup> )	1910 mg/m <sup>3</sup>
Spain	VLA-ED (ppm)	1000 ppm
Spain	VLA-EC (mg/m <sup>3</sup> )	1910 mg/m <sup>3</sup>
Spain	VLA-EC (ppm)	1000 ppm
Spain	Notes	s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: <a href="http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas">http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas</a> Base de datos de productos fitosanitarios <a href="http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf">http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf</a> ).
Spain	Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2018. INSHT
Sweden	Local name	Etanol
Sweden	nivågränsvärde (NVG) (mg/m <sup>3</sup> )	1000 mg/m <sup>3</sup>
Sweden	nivågränsvärde (NVG) (ppm)	500 ppm
Sweden	kortidsvärde (KTV) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Sweden	kortidsvärde (KTV) (ppm)	1000 ppm
Sweden	Anmärkning (SE)	V (Vägledande kortidsgränsvärde ska användas som ett rekommenderat högsta värde som inte bör överskridas)
Sweden	Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
United Kingdom	Local name	Ethanol
United Kingdom	WEL TWA (mg/m <sup>3</sup> )	1920 mg/m <sup>3</sup>
United Kingdom	WEL TWA (ppm)	1000 ppm
United Kingdom	WEL STEL (mg/m <sup>3</sup> )	5760 mg/m <sup>3</sup> (calculated)
United Kingdom	WEL STEL (ppm)	3000 ppm (calculated)
United Kingdom	Regulatory reference	EH40/2005 (Third edition, 2018). HSE
Iceland	Local name	Etanól (etýlalkóhól)
Iceland	OEL (8 hours ref) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
Iceland	OEL (8 hours ref) (ppm)	1000 ppm
Iceland	Regulatory reference	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway	Local name	Etanol
Norway	Grenseverdier (AN) (mg/m <sup>3</sup> )	950 mg/m <sup>3</sup>
Norway	Grenseverdier (AN) (ppm)	500 ppm

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Ethyl alcohol (64-17-5)		
Norway	Grenseverdier (Korttidsverdi) (mg/m3)	1187.5 mg/m <sup>3</sup> (value calculated)
Norway	Grenseverdier (Korttidsverdi) (ppm)	625 ppm (value calculated)
Norway	Regulatory reference	FOR-2018-08-21-1255
USA - ACGIH	Local name	Ethanol
USA - ACGIH	ACGIH STEL (ppm)	1000 ppm
USA - ACGIH	Remark (ACGIH)	TLV® Basis: URT irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
USA - ACGIH	Regulatory reference	ACGIH 2018

### 8.2. Exposure controls

#### Appropriate engineering controls:

Provide local exhaust or general room ventilation to minimize vapour concentrations. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Hand protection:

Impermeable protective gloves. EN 374

#### Eye protection:

Safety glasses with side shields. DIN EN 166

#### Skin and body protection:

Long sleeved protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. An approved organic vapour respirator/supplied air or self-contained breathing apparatus must be used when vapour concentration exceeds applicable exposure limits

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Appearance	: Clear.
Colour	: Colourless.
Odour	: alcohol odour.
Odour threshold	: No data available
pH	: 6.8 - 7.5
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 18 °C 64°F (Ethanol)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Stable under normal conditions of use.

#### 10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

#### 10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

#### 10.4. Conditions to avoid

Do not expose to heat. No flames, no sparks. Eliminate all sources of ignition.

#### 10.5. Incompatible materials

Caustic products. metals. Sulfides (total sum of dimethyl disulfide, dimethyl sulfide and methyl mercaptan). Sulfites.

#### 10.6. Hazardous decomposition products

On combustion, forms: carbon oxides (CO and CO<sub>2</sub>).

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Ethyl alcohol (64-17-5)	
LD50 oral rat	7060 mg/kg
LC50 inhalation rat (mg/l)	124.7 mg/l/4h

[3-(2,3-Epoxypropoxy)propyl]trimethoxysilane (2530-83-8)	
LD50 oral rat	7.01 g/kg
LC50 inhalation rat (mg/l)	> 5.3 mg/l/4h

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met)  
pH: 6.8 - 7.5

Serious eye damage/irritation : Causes serious eye damage.  
pH: 6.8 - 7.5

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : This material has not been tested for environmental effects.

Acute aquatic toxicity : Not classified (Based on available data, the classification criteria are not met)

Chronic aquatic toxicity : Not classified (Based on available data, the classification criteria are not met)

Ethyl alcohol (64-17-5)	
LC50 fish 1	12.0 - 16.0 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
LC50 fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
LC50 other aquatic organisms 1	5012 mg/l 48 hours- daphnia
EC50 Daphnia 1	9268 - 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
ErC50 (algae)	275 mg/l
ErC50 (other aquatic plants)	4432 mg/l
NOEC (acute)	9.6 mg/l Daphnia magna



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### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

Ethyl alcohol (64-17-5)

Log Pow	-0.32
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### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available






## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Handle empty containers with care because residual vapours are flammable. Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Flammable vapours may accumulate in the container.

## SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
UN 1170	UN 1170	UN 1170	UN 1170	UN 1170
<b>14.2. UN proper shipping name</b>				
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL (ETHYL ALCOHOL)	Ethanol	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>Transport document description</b>				
UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III, (D/E)	UN 1170 ETHANOL (ETHYL ALCOHOL), 3, III	UN 1170 Ethanol, 3, III	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III
<b>14.3. Transport hazard class(es)</b>				
3	3	3	3	3
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

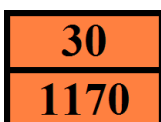
Classification code (ADR)	: F1
Special provisions (ADR)	: 144, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19

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Portable tank and bulk container instructions (ADR) : T2  
Portable tank and bulk container special provisions (ADR) : TP1  
Tank code (ADR) : LGBF  
Vehicle for tank carriage : FL  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Special provisions for carriage - Operation (ADR) : S2  
Hazard identification number (Kemler No.) : 30  
Orange plates :



Tunnel restriction code (ADR) : D/E  
EAC code : •2YE

### Transport by sea

Special provisions (IMDG) : 144, 223  
Limited quantities (IMDG) : 5 L  
Excepted quantities (IMDG) : E1  
Packing instructions (IMDG) : P001, LP01  
IBC packing instructions (IMDG) : IBC03  
Tank instructions (IMDG) : T2  
Tank special provisions (IMDG) : TP1  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-D  
Stowage category (IMDG) : A  
Properties and observations (IMDG) : Colourless, volatile liquids. Pure ETHANOL: flashpoint 13°C c.c. Explosive limits: 3.3% to 19% Miscible with water.

### Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y344  
PCA limited quantity max net quantity (IATA) : 10L  
PCA packing instructions (IATA) : 355  
PCA max net quantity (IATA) : 60L  
CAO packing instructions (IATA) : 366  
CAO max net quantity (IATA) : 220L  
Special provisions (IATA) : A3, A58, A180  
ERG code (IATA) : 3L

### Inland waterway transport

Classification code (ADN) : F1  
Special provisions (ADN) : 144, 601  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP, EX, A  
Ventilation (ADN) : VE01  
Number of blue cones/lights (ADN) : 0

### Rail transport

Classification code (RID) : F1  
Special provisions (RID) : 144, 601  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T2  
Portable tank and bulk container special provisions (RID) : TP1

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Tank codes for RID tanks (RID) : LGBF  
Transport category (RID) : 3  
Special provisions for carriage – Packages (RID) : W12  
Colis express (express parcels) (RID) : CE4  
Hazard identification number (RID) : 30

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : Ethyl alcohol is listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : Ethyl alcohol is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : Ethyl alcohol is listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : Ethyl alcohol is listed

##### Denmark

Class for fire hazard : Class I-1

Store unit : 1 liter

Classification remarks : F <Flam. Liq. 2>; Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Sources of Key data : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

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Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Flam. Liq. 2	H225	Expert judgment
Eye Dam. 1	H318	Calculation method

SDS EU (REACH Annex II)

*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*