

Safety data sheet
complying with Regulation 1907/2006/EC (REACH Regulation),
EU 2020/878 and Regulation No 1272/2008/EC (CLP)

Printing date 15.02.2021

Version number 1

Revision: 15.02.2021

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

1.1 Product identifier

Trade name: Smarthand Liquid

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

No further relevant information available.

Application of the substance / the mixture: Antiseptic solution

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfred Becht GmbH
Carl-Zeiss-Strasse 16
77656 Offenburg
Germany

Tel:0781 60586-0

Fax:0781 60586-40

E-Mail:info@becht-online.de

1.4 Emergency telephone number:



European Emergency Tel.: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation EC No 1272/2008 CLP:



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation EC No 1272/2008 CLP:

The product is classified and labelled according to the CLP regulation.

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Hazard pictograms:

GHS02 GHS07

Signal word: Danger**Hazard statements:**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

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

P233 Keep container tightly closed.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

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

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Mixture: consisting of the following components.**Ingredients according Regulation (EU) 2020/878:**

CAS: 64-17-5	ethanol	Flam. Liq. 2, H225; Eye Irrit. 2, H319	50-100%
EINECS: 200-578-6			
Index number: 603-002-00-5			
Reg.nr.: 01-2119457610-43-XXXX			

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Take affected persons out into the fresh air.

Seek immediate medical advice.

After inhalation: Seek medical treatment in case of complaints.**After skin contact:** In case of skin irritation, consult a physician.**After eye contact:** Avoid strong water jet-risk of cornea damage, consult a doctor.**After swallowing:**

Rinse out mouth and then drink plenty of water.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

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Seek immediate medical advice.

Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**

Alcohol resistant foam

Dry powder

Water spray

CO₂CO₂, powder or water spray. Fight larger fires with water spray.

Use fire extinguishing methods suitable to surrounding conditions.

Foam

Sand or earth

CO₂, foam, extinguishing powder, water spray**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture**In a fire nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂) can be released.**5.3 Advice for firefighters****Protective equipment:**

Do not inhale explosion gases or combustion gases.

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Wear protective goggles.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation.

Avoid contact with eyes.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

6.1.1 For non-emergency personnel Avoid contact with dripping or leaking material**6.1.2 For emergency responders**

Evacuate area.

Wear protective equipment. Keep unprotected persons away.

First-aid responders must wear protective clothing, gloves, goggles and respiratory device with filter type A.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:**

Rinse off remainders with water.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust, silica gel).

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Open and handle receptacle with care.
 Handle with care. Avoid jolting, friction and impact.
 Avoid contact with eyes, skin and clothing.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray onto a naked flame or any incandescent material.

Flammable gas-air mixtures may form in empty receptacles.

Keep it in a dry, cool, well ventilated, fixed in advance place, away from sources of heat, flames, ignition and direct sunlight.

7.2 Conditions for safe storage, including any incompatibilities**Storage:** Store in cool, dry conditions in well sealed receptacles.**Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Provide ventilation for receptacles.

Information about storage in one common storage facility: Not required.**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s) No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 64-17-5 ethanol**WEL (Great Britain) | Long-term value: 1920 mg/m³, 1000 ppm**DNELs**

Propane-1,2-diol cas number: 57-55-6

Workers (long-term systemic effects), inhalation: 168 mg/m³Workers (long-term local effects), inhalation: 10 mg/m³General population (long-term systemic effects), inhalation: 50 mg/m³

General population (long-term systemic effects), dermal: 213 mg / kg bw / day

General population (long-term systemic effects), oral: 85 mg / kg bw / day

General population (long-term local effects), inhalation: 10 mg/m³**PNECs**

Propane-1,2 -diol cas number: 57-55-6

Fresh water: 260 mg/l

Marine water: 26 mg/l

Intermittent releases: 183 mg/l

STP: 20000 mg/l

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Fresh water sediment: 572 mg/kg dw

Marine sediment: 57.2 mg/kg dw

Soil: 50 mg/kg dw

DNEL Workers Long term exposure local effects

Ethanol (CAS 64-17-5)

Inhalation: 1900 mg/m³**DNEL Workers Long term exposure systemic effects**

Ethanol (CAS 64-17-5)

Inhalation: 950 mg/m³

Skin Contact: 343 mg/kg bw/day

DNEL consumers Acute/short term exposure Local effects

Ethanol (CAS 64-17-5)

Inhalation : 950 mg/m³**DNEL Consumers Long-term exposure systemic effects**

Ethanol (CAS 64-17-5)

Inhalation: 114 mg/m³

Skin Contact: 206 mg/kg bw/day

8.2 Exposure controls**8.2.1. Appropriate engineering controls**

Use of local ventilation is advised.

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Respiratory protection:

Short term filter device:

Filter A/P2



Suitable respiratory protection at low concentrations or short-term incidence: A-type filter mask (brown) for gases and vapours of organic compounds with a boiling point higher than 65°C (EN14387). Classe 1: low capacity up to 1000 ppm, Classe 2: medium capacity up to 5000 ppm, Classe 3: high capacity up to 10000 ppm. In order to obtain a suitable protection level, the filter class must be selected depending on the type and concentration of the contaminating agents present, in accordance with the specifications supplied by the filter producers. The gas and vapour filters should be changed when you detect the taste or smell of the contaminant. The respiratory equipment with filters does not work satisfactorily when the air contains high concentrations of vapour or oxygen content less than 18% in volume. In presence of high concentrations of vapour, use independent breathing apparatus.

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Hand protection

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves gloves CEN 374

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye/face protection

Tightly sealed goggles (EN 166).

Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information**

Physical state	Liquid
Colour:	Colourless
Odour:	Alcohol-like
Odour threshold:	Not determined
Melting point/freezing point:	-114 °C
Flammability	425 oC
Lower and upper explosion limit	
Lower:	3.5 Vol %
Upper:	15 Vol %
Flash point:	>17 °C
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	>100 °C
pH (10 g/l) at 20 °C	7+/- 0.50
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic:	Not determined
Solubility	
water:	Not determined
Partition coefficient n-octanol/water (log value)	-0.31 log POW
Vapour pressure at 20 °C:	59 hPa

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Density and/or relative density

Density:	Not determined
Relative density at 20 °C	0.84 +/- 0.02 g/cm ³
Vapour density	Not determined

9.2 Other information**Appearance:****Form:** Liquid**Important information on protection of health and environment, and on safety.****Auto-ignition temperature:** Not determined**Explosive properties:** Not determined.**Cloud point / clarification point:****Oxidising properties** Not oxidising**Evaporation rate** Not determined**Information with regard to physical hazard classes**

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Highly flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity**10.1 Reactivity** Stable under normal conditions**10.2 Chemical stability** Material is stable under normal conditions.**Thermal decomposition / conditions to be avoided**

To avoid thermal decomposition do not overheat.

Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials** Oxidizing agents**10.6 Hazardous decomposition products**

Carbon monoxide

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Carbon dioxide

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SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:**CAS: 64-17-5 ethanol**

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h (vapour)	20,000 mg/l (rat)

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Additional toxicological information:

Repeated dose toxicity Based on available data, the classification criteria are not met.

11.2 Information on other hazards**Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:**

Ethanol, cas: 64-17-5

Fish toxicity LC50:> 10000 mg / l

Daphnia toxicity, CEE0:> 7800 mg / l

Bacterial toxicity (Ps putida) CEE0:> 6500 mg / l

Algal toxicity (SC. Quadricauda), CEE0:> 5000 mg / l

Algal toxicity (M. Acruginosa), CEE0:> 1450 mg / l

Propane-1,2-diol cas number: 57-55-6

LC50 Oncorhynchus mykiss, 96 h: 40.613 mg/l

LC50 Ceriodaphnia dubia, 48 h: 18.340 mg/l

LC50 Mysidopsis bahia, 96 h: 18.800 mg/l

ErC50 Selenastrum capricornutum, 96 h: 19.000 mg/l

ErC50 Skeletonema costatum, 96 h: 19.100 mg/l

Long-term toxicity to aquatic invertebrates

NOEC (7 days) 13.02 - 29 g/L

Toxicity to microorganisms

EC10 or NOEC for microorganisms 20 g/L

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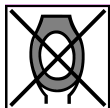
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12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation**

Dispose according to National Regulations.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

Uncleaned packaging:**Recommendation:**

Empty containers may contain highly flammable residues.

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

Recommended cleansing agents: Water**SECTION 14: Transport information****14.1 UN number or ID number**

ADR, IMDG, IATA

UN1170

14.2 UN proper shipping name

ADR

1170 ETHANOL (ETHYL ALCOHOL) mixture

IMDG

ETHANOL (ETHYL ALCOHOL) mixture

IATA

ETHANOL mixture

14.3 Transport hazard class(es)

ADR, IMDG, IATA



Class

3 Flammable liquids.

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Label	3
14.4 Packing group ADR, IMDG, IATA	II
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category	Warning: Flammable liquids. 33 F-E,S-D A
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category Tunnel restriction code	2 D/E
IMDG Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL) MIXTURE, 3, II

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH Regulation 1907/2006/EC

Regulation (EU) 2020/878

CLP Regulation 1272/2008/EC

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

Council Directive 94/33/EC on the protection of young people at work, as ammended.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

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Hazard pictograms

GHS02 GHS07

Signal word Danger**Hazard statements**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

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

P233 Keep container tightly closed.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

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

Directive 2012/18/EU**Named dangerous substances - ANNEX I** Does not contain named substances.**Seveso category** P5c**Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

National regulations:**Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

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Department issuing SDS:

SUSTCHEM S.A.

REACH & Chemical Services Department

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W: www.sustchem.gr | E: info@suschem.gr

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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1.1 Product identifier

Trade name: Smarthand Liquid

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

No further relevant information available.

Application of the substance / the mixture: Antiseptic solution

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Alfred Becht GmbH
Carl-Zeiss-Strasse 16
77656 Offenburg
Germany

Tel:0781 60586-0

Fax:0781 60586-40

E-Mail:info@becht-online.de

1.4 Emergency telephone number:



European Emergency Tel.: 112

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation EC No 1272/2008 CLP:



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

2.2 Label elements

Labelling according to Regulation EC No 1272/2008 CLP:

The product is classified and labelled according to the CLP regulation.

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Hazard pictograms:

GHS02 GHS07

Signal word: Danger**Hazard statements:**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

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

P233 Keep container tightly closed.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

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

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Mixtures****Description:** Mixture: consisting of the following components.**Ingredients according Regulation (EU) 2020/878:**

CAS: 64-17-5	ethanol	Flam. Liq. 2, H225; Eye Irrit. 2, H319	50-100%
EINECS: 200-578-6			
Index number: 603-002-00-5			
Reg.nr.: 01-2119457610-43-XXXX			

SECTION 4: First aid measures**4.1 Description of first aid measures****General information:**

Take affected persons out into the fresh air.

Seek immediate medical advice.

After inhalation: Seek medical treatment in case of complaints.**After skin contact:** In case of skin irritation, consult a physician.**After eye contact:** Avoid strong water jet-risk of cornea damage, consult a doctor.**After swallowing:**

Rinse out mouth and then drink plenty of water.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

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Seek immediate medical advice.

Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing agents:**

Alcohol resistant foam

Dry powder

Water spray

CO₂CO₂, powder or water spray. Fight larger fires with water spray.

Use fire extinguishing methods suitable to surrounding conditions.

Foam

Sand or earth

CO₂, foam, extinguishing powder, water spray**For safety reasons unsuitable extinguishing agents:** Water with full jet**5.2 Special hazards arising from the substance or mixture**In a fire nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂) can be released.**5.3 Advice for firefighters****Protective equipment:**

Do not inhale explosion gases or combustion gases.

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

Wear protective goggles.

Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures:**

Ensure adequate ventilation.

Avoid contact with eyes.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

6.1.1 For non-emergency personnel Avoid contact with dripping or leaking material**6.1.2 For emergency responders**

Evacuate area.

Wear protective equipment. Keep unprotected persons away.

First-aid responders must wear protective clothing, gloves, goggles and respiratory device with filter type A.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**6.3 Methods and material for containment and cleaning up:**

Rinse off remainders with water.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust, silica gel).

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage**7.1 Precautions for safe handling**

Open and handle receptacle with care.
 Handle with care. Avoid jolting, friction and impact.
 Avoid contact with eyes, skin and clothing.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Do not spray onto a naked flame or any incandescent material.

Flammable gas-air mixtures may form in empty receptacles.

Keep it in a dry, cool, well ventilated, fixed in advance place, away from sources of heat, flames, ignition and direct sunlight.

7.2 Conditions for safe storage, including any incompatibilities**Storage:** Store in cool, dry conditions in well sealed receptacles.**Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Provide ventilation for receptacles.

Information about storage in one common storage facility: Not required.**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s) No further relevant information available.**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****CAS: 64-17-5 ethanol**WEL (Great Britain) | Long-term value: 1920 mg/m³, 1000 ppm**DNELs**

Propane-1,2-diol cas number: 57-55-6

Workers (long-term systemic effects), inhalation: 168 mg/m³Workers (long-term local effects), inhalation: 10 mg/m³General population (long-term systemic effects), inhalation: 50 mg/m³

General population (long-term systemic effects), dermal: 213 mg / kg bw / day

General population (long-term systemic effects), oral: 85 mg / kg bw / day

General population (long-term local effects), inhalation: 10 mg/m³**PNECs**

Propane-1,2 -diol cas number: 57-55-6

Fresh water: 260 mg/l

Marine water: 26 mg/l

Intermittent releases: 183 mg/l

STP: 20000 mg/l

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Fresh water sediment: 572 mg/kg dw

Marine sediment: 57.2 mg/kg dw

Soil: 50 mg/kg dw

DNEL Workers Long term exposure local effects

Ethanol (CAS 64-17-5)

Inhalation: 1900 mg/m³**DNEL Workers Long term exposure systemic effects**

Ethanol (CAS 64-17-5)

Inhalation: 950 mg/m³

Skin Contact: 343 mg/kg bw/day

DNEL consumers Acute/short term exposure Local effects

Ethanol (CAS 64-17-5)

Inhalation : 950 mg/m³**DNEL Consumers Long-term exposure systemic effects**

Ethanol (CAS 64-17-5)

Inhalation: 114 mg/m³

Skin Contact: 206 mg/kg bw/day

8.2 Exposure controls**8.2.1. Appropriate engineering controls**

Use of local ventilation is advised.

Provide adequate ventilation.

Individual protection measures, such as personal protective equipment**General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Respiratory protection:

Short term filter device:

Filter A/P2



Suitable respiratory protection at low concentrations or short-term incidence: A-type filter mask (brown) for gases and vapours of organic compounds with a boiling point higher than 65°C (EN14387). Classe 1: low capacity up to 1000 ppm, Classe 2: medium capacity up to 5000 ppm, Classe 3: high capacity up to 10000 ppm. In order to obtain a suitable protection level, the filter class must be selected depending on the type and concentration of the contaminating agents present, in accordance with the specifications supplied by the filter producers. The gas and vapour filters should be changed when you detect the taste or smell of the contaminant. The respiratory equipment with filters does not work satisfactorily when the air contains high concentrations of vapour or oxygen content less than 18% in volume. In presence of high concentrations of vapour, use independent breathing apparatus.

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Hand protection

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves gloves CEN 374

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

Eye/face protection

Tightly sealed goggles (EN 166).

Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****General Information**

Physical state	Liquid
Colour:	Colourless
Odour:	Alcohol-like
Odour threshold:	Not determined
Melting point/freezing point:	-114 °C
Flammability	425 oC
Lower and upper explosion limit	
Lower:	3.5 Vol %
Upper:	15 Vol %
Flash point:	>17 °C
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	>100 °C
pH (10 g/l) at 20 °C	7+/- 0.50
Viscosity:	
Kinematic viscosity	Not determined
Kinematic viscosity	
Dynamic:	Not determined
Solubility	
water:	Not determined
Partition coefficient n-octanol/water (log value)	-0.31 log POW
Vapour pressure at 20 °C:	59 hPa

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Density and/or relative density

Density:	Not determined
Relative density at 20 °C	0.84 +/- 0.02 g/cm ³
Vapour density	Not determined

9.2 Other information**Appearance:**

Form: Liquid

Important information on protection of health and environment, and on safety.

Auto-ignition temperature: Not determined

Explosive properties: Not determined.

Cloud point / clarification point:

Oxidising properties: Not oxidising

Evaporation rate: Not determined

Information with regard to physical hazard classes

Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Highly flammable liquid and vapour.
Flammable solids	Void
Self-reactive substances and mixtures	Void
Pyrophoric liquids	Void
Pyrophoric solids	Void
Self-heating substances and mixtures	Void
Substances and mixtures, which emit flammable gases in contact with water	Void
Oxidising liquids	Void
Oxidising solids	Void
Organic peroxides	Void
Corrosive to metals	Void
Desensitised explosives	Void

SECTION 10: Stability and reactivity**10.1 Reactivity** Stable under normal conditions**10.2 Chemical stability** Material is stable under normal conditions.**Thermal decomposition / conditions to be avoided**

To avoid thermal decomposition do not overheat.

Stable at environment temperature.

10.3 Possibility of hazardous reactions No dangerous reactions known.**10.4 Conditions to avoid** No further relevant information available.**10.5 Incompatible materials** Oxidizing agents**10.6 Hazardous decomposition products**

Carbon monoxide

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Carbon dioxide

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SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute toxicity Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:**CAS: 64-17-5 ethanol**

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h (vapour)	20,000 mg/l (rat)

Skin corrosion/irritation Based on available data, the classification criteria are not met.

Serious eye damage/irritation Causes serious eye irritation.

Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

Germ cell mutagenicity Based on available data, the classification criteria are not met.

Carcinogenicity Based on available data, the classification criteria are not met.

Reproductive toxicity Based on available data, the classification criteria are not met.

STOT-single exposure Based on available data, the classification criteria are not met.

STOT-repeated exposure Based on available data, the classification criteria are not met.

Aspiration hazard Based on available data, the classification criteria are not met.

Additional toxicological information:

Repeated dose toxicity Based on available data, the classification criteria are not met.

11.2 Information on other hazards**Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information**12.1 Toxicity****Aquatic toxicity:**

Ethanol, cas: 64-17-5

Fish toxicity LC50:> 10000 mg / l

Daphnia toxicity, CEE0:> 7800 mg / l

Bacterial toxicity (Ps putida) CEE0:> 6500 mg / l

Algal toxicity (SC. Quadricauda), CEE0:> 5000 mg / l

Algal toxicity (M. Acruginosa), CEE0:> 1450 mg / l

Propane-1,2-diol cas number: 57-55-6

LC50 Oncorhynchus mykiss, 96 h: 40.613 mg/l

LC50 Ceriodaphnia dubia, 48 h: 18.340 mg/l

LC50 Mysidopsis bahia, 96 h: 18.800 mg/l

ErC50 Selenastrum capricornutum, 96 h: 19.000 mg/l

ErC50 Skeletonema costatum, 96 h: 19.100 mg/l

Long-term toxicity to aquatic invertebrates

NOEC (7 days) 13.02 - 29 g/L

Toxicity to microorganisms

EC10 or NOEC for microorganisms 20 g/L

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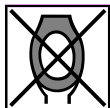
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12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential** No further relevant information available.**12.4 Mobility in soil** No further relevant information available.**12.5 Results of PBT and vPvB assessment****PBT:** Not applicable.**vPvB:** Not applicable.**12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects No further relevant information available.**SECTION 13: Disposal considerations****13.1 Waste treatment methods****Recommendation**

Dispose according to National Regulations.



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Contact manufacturer for recycling information.

Uncleaned packaging:**Recommendation:**

Empty containers may contain highly flammable residues.

Disposal must be made according to official regulations.

Packaging may be reused or recycled after cleaning.

Recommended cleansing agents: Water**SECTION 14: Transport information****14.1 UN number or ID number**

ADR, IMDG, IATA

UN1170

14.2 UN proper shipping name

ADR

1170 ETHANOL (ETHYL ALCOHOL) mixture

IMDG

ETHANOL (ETHYL ALCOHOL) mixture

IATA

ETHANOL mixture

14.3 Transport hazard class(es)

ADR, IMDG, IATA



Class

3 Flammable liquids.

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Label	3
14.4 Packing group ADR, IMDG, IATA	II
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user Hazard identification number (Kemler code): EMS Number: Stowage Category	Warning: Flammable liquids. 33 F-E,S-D A
14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
Transport category Tunnel restriction code	2 D/E
IMDG Limited quantities (LQ) Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL) MIXTURE, 3, II

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH Regulation 1907/2006/EC

Regulation (EU) 2020/878

CLP Regulation 1272/2008/EC

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

Council Directive 94/33/EC on the protection of young people at work, as ammended.

Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, as ammended

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

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Hazard pictograms

GHS02 GHS07

Signal word Danger**Hazard statements**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Precautionary statements

P102 Keep out of reach of children.

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

P233 Keep container tightly closed.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

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

Directive 2012/18/EU**Named dangerous substances - ANNEX I** Does not contain named substances.**Seveso category** P5c**Qualifying quantity (tonnes) for the application of lower-tier requirements** 5,000 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 50,000 t**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

National regulations:**Other regulations, limitations and prohibitive regulations****Substances of very high concern (SVHC) according to REACH, Article 57**

It doesn't contain substances of very high concern (SVHC).

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

Training hints

Suitable training on safety in handling, storing and converting the product should be given to the employees based on all the existing information.

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Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

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