

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)

C L E A N F I R E S Y S T E M  
**XARALYN®**

Trade name : CL100  
Revision date : 04-04-2019  
Print date : 04-04-2019

Version (Revision) : 2.0.0 (1.0.1)

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

**1.1 Product identifier**

CL100 (140010)

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

Fuels. Consumer uses: Private households (= general public = consumers)

**Uses advised against**

This product should not be used for purposes other than the applications referred to above.

**1.3 Details of the supplier of the safety data sheet**

**Supplier (manufacturer/importer/only representative/downstream user/distributor)**

Xaralyn BV

**Street :** Vreekesweid 30-32

**Postal code/city :** 1721PR Broek op Langedijk

**Telephone :** +31(0)226 33 14 20

**Telefax :** +31(0)226 14 29

**Information contact :** Email: info@xaralyn.com

**1.4 Emergency telephone number**

Members of the public seeking specific information on poisons should contact: In England and Wales: NHS 111 - dial 111, in Scotland: NHS 24 - dial 111

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Directive 67/548/EEC or 1999/45/EC**

Highly flammable. · Irritating to eyes.

F ; R 11 · Xi ; R 36

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

Eye Irrit. 2 ; H319 - Serious eye damage/eye irritation : Category 2A ; Causes serious eye irritation.

Flam. Liq. 2 ; H225 - Flammable liquids : Category 2 ; Highly flammable liquid and vapour.

**2.2 Label elements**

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

**Hazard pictograms**



Flame (GHS02) · Exclamation mark (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.

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|                |  |
|----------------|--|
| P210           | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.                                   |
| P280           | Wear protective gloves/protective clothing/eye protection/face protection.   |
| P337+P313      | If eye irritation persists: Get medical advice/attention.  |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.                              |
| P501           | Dispose of contents/container in accordance with local regulations.  |

## 2.3 Other hazards

This material can accumulate static charge by flow or agitation and can be ignited by static discharge. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode. Irritating to respiratory system and skin.

## SECTION 3: Composition / information on ingredients

### 3.2 Mixtures

#### Hazardous ingredients

ETHANOL ; EC No. : 200-578-6; CAS No. : 64-17-5

Weight fraction :  $\geq 90 \%$

Classification 67/548/EEC : F ; R11 Xi ; R36

Classification 1272/2008 [CLP] : Flam. Liq. 2 ; H225 Eye Irrit. 2 ; H319

#### Additional information

Full text of R-, H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

When in doubt or if symptoms are observed, get medical advice. Observe risk of aspiration if vomiting occurs. If unconscious place in recovery position and seek medical advice. If breathing is irregular or stopped, administer artificial respiration. Remove casualty to fresh air and keep warm and at rest.

#### In case of inhalation

Remove casualty to fresh air and keep warm and at rest. In all cases of doubt, or when symptoms persist, seek medical attention.

#### In case of skin contact

Wash immediately with: Water In all cases of doubt, or when symptoms persist, seek medical attention. Change contaminated, saturated clothing. Wash contaminated clothing prior to re-use.

#### After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. In all cases of doubt, or when symptoms persist, seek medical attention.

#### After ingestion

Rinse mouth thoroughly with water. Do NOT induce vomiting. In all cases of doubt, or when symptoms persist, seek medical attention.

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

The following symptoms may occur: Headache Dizziness Nausea Diminished responsiveness Danger of irritation to eyes, nose, throat and the air passages. central nervous system depression Cardiac arrhythmias Drowsiness Vomiting Dilated pupils

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

Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water mist alcohol resistant foam BC-powder Carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

Full water jet

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

#### Hazardous combustion products

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

### 5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

## SECTION 6: Accidental release measures

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

Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction. Remove all sources of ignition. Use only antistatically equipped (spark-free) tools.

#### For non-emergency personnel

##### Protective equipment

Use personal protection equipment. Wear closed protection glasses. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

### 6.2 Environmental precautions

Make sure spills can be contained, e.g. in sump pallets or kerbed areas. Use foam on spills to minimise vapours.

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

#### For cleaning up

Suitable material for taking up: Sand Kieselguhr Limestone powder Collect in closed and suitable containers for disposal. Delivery to an approved waste disposal company. The contaminated area should be cleaned up immediately with: Water

### 6.4 Reference to other sections

See protective measures under point 7 and 8.

## SECTION 7: Handling and storage



### 7.1 Precautions for safe handling

#### Protective measures

##### Measures to prevent fire

Use only antistatically equipped (spark-free) tools. Provide earthing of containers, equipment, pumps and ventilation facilities. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours are heavier than air, spread along floors and form explosive mixtures with air.

##### Measures to prevent aerosol and dust generation

During filling, metering and sampling should be used if possible: Closed devices

##### Environmental precautions

Do not empty into drains.

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## Specific requirements or handling rules

Remove contaminated, saturated clothing immediately.

## 7.2 Conditions for safe storage, including any incompatibilities

### Technical measures and storage conditions

Protect against direct sunlight. Keep container tightly closed in a cool, well-ventilated place. Ensure adequate ventilation of the storage area. Suitable container/equipment material: Stainless steel Aluminium Iron. Copper Glass  
Unsuitable container/equipment material: No data available

### Hints on joint storage

#### Keep away from

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Oxidising agent

## 7.3 Specific end use(s)

None

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values

ETHANOL ; CAS No. : 64-17-5

Limit value type (country of origin) : Exposure Limit (8h) ( NL )

Limit value : 260 mg/m<sup>3</sup> / 136 ppm

Remark : H

Version : 01-01-2007

Limit value type (country of origin) : Exposure Limit (15min) ( NL )

Limit value : 1900 mg/m<sup>3</sup> / 992 ppm

Remark : H

Version : 01-01-2007

#### DNEL/DMEL and PNEC values

##### DNEL/DMEL

Limit value type : DNEL/DMEL (Consumer) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Short-term (acute)

Limit value : 950 mg/m<sup>3</sup>

Limit value type : DNEL/DMEL (Consumer) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Dermal

Exposure frequency : Long-term (repeated)

Limit value : 206 mg/kg bw

Safety factor : day

Limit value type : DNEL/DMEL (Consumer) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Long-term (repeated)

Limit value : 114 mg/m<sup>3</sup>

Limit value type : DNEL/DMEL (Consumer) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Oral

Exposure frequency : Long-term (repeated)

Limit value : 87 mg/kg bw

Limit value type : DNEL/DMEL (Worker) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Inhalation

Exposure frequency : Short-term (acute)

Limit value : 1900 mg/m<sup>3</sup>

Limit value type : DNEL/DMEL (Worker) ( ETHANOL ; CAS No. : 64-17-5 )

Exposure route : Dermal

Exposure frequency : Long-term (repeated)

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Limit value : 343 mg/kg bw  
Safety factor : day  
Limit value type : DNEL/DMEL (Worker) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Inhalation  
Exposure frequency : Long-term (repeated)  
Limit value : 950 mg/m<sup>3</sup>

## PNEC

Limit value type : PNEC aquatic, freshwater ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Water  
Limit value : 0,96 mg/l  
Limit value type : PNEC aquatic, marine water ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Water  
Limit value : 0,79 mg/l  
Limit value type : PNEC sediment, freshwater ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Sediment  
Limit value : 3,6 mg/kg  
Limit value type : PNEC soil, freshwater ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Soil  
Limit value : 0,63 mg/kg  
Limit value type : PNEC sewage treatment plant (STP) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Water (Including sewage plant)  
Limit value : 580 mg/l

## 8.2 Exposure controls

### Appropriate engineering controls

Use only in well-ventilated areas. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Provide earthing of containers, equipment, pumps and ventilation facilities. Use only antistatically equipped (spark-free) tools. Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### Personal protection equipment



### Eye/face protection



#### Suitable eye protection

Eye glasses with side protection

### Skin protection

#### Hand protection



**Suitable gloves type :** The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

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**Suitable material** : Butyl caoutchouc (butyl rubber) Tetrafluoroethylene

**Unsuitable material** : NR (natural rubber, natural latex) PVA (Polyvinyl alcohol) PVC (Polyvinyl chloride)

**Required properties** : liquid-tight.

**Remark** : DIN-/EN-Norms DIN EN 420 DIN EN 374

## Body protection

Protective clothing Chemical resistant safety shoes

**Remark** : Immediately remove any contaminated clothing, shoes or stockings. Wash contaminated clothing prior to re-use.

## Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Suitable respiratory protection apparatus Full-/half-/quarter-face masks (DIN EN 136/140) Filtering device (full mask or mouthpiece) with filter: A

## General health and safety measures

Wash hands before breaks and after work.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

**Appearance** : liquid

**Colour** : colourless

**Odour** : Alcohol

## Odour threshold

No information available.

## Safety relevant basis data

**Melting point/melting range** : No data available

**Boiling temperature/boiling range** : No data available

**Boiling temperature/boiling range** : ( 1013 hPa ) No data available

**Decomposition temperature** : No data available

**Freezing point** : No data available

**Flash point** : 10 - 15 °C

**Ignition temperature** : No data available

**Lower explosion limit** : Vol-%

**Upper explosion limit** : Vol-%

**Vapour pressure** : ( 20 °C ) No data available

**Evaporation rate** : No data available

**Evaporation rate (n-butylacetate = 1) :** No data available

**Density** : ( 15 °C ) 0,8 - 0,82 g/cm<sup>3</sup>

**Water solubility** : ( 20 °C ) 100 Wt %

**PH value** : No data available

**log P O/W** : No data available

**Viscosity** : ( 20 °C ) No data available

**Odour threshold** : No data available

**Relative vapour density** : ( 20 °C ) > 1 (air = 1)

**Flammable gases** : No data available.

**Oxidising liquids** : Not oxidizing.

**Explosive properties** : Not applicable.

### 9.2 Other information

None

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Be aware that gases can spread at ground level (heavier than air) and pay attention to the wind direction. This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

### 10.2 Chemical stability

Stable under normal conditions of use

### 10.3 Possibility of hazardous reactions

Oxidising agent, strong. Violent reaction with: Strong acid

### 10.4 Conditions to avoid

This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment). Keep away from sources of ignition. - No smoking. Use only antistatically equipped (spark-free) tools.

### 10.5 Incompatible materials

Oxidising agent.

### 10.6 Hazardous decomposition products

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

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute effects

##### Acute oral toxicity

|                  |                                      |
|------------------|--------------------------------------|
| Parameter :      | LD50 ( ETHANOL ; CAS No. : 64-17-5 ) |
| Exposure route : | Oral                                 |
| Species :        | Rat                                  |
| Effective dose : | 10470 mg/kg bw                       |
| Test result :    | Minimally Toxic.                     |
| Methode :        | OECD 401                             |

##### Acute inhalation toxicity

|                  |                                      |
|------------------|--------------------------------------|
| Parameter :      | LC50 ( ETHANOL ; CAS No. : 64-17-5 ) |
| Exposure route : | Inhalation                           |
| Species :        | Rat                                  |
| Effective dose : | 124,7 mg/l                           |
| Exposure time :  | 4 h                                  |
| Test result :    | Minimally Toxic.                     |
| Methode :        | OECD 403                             |

#### Irritant and corrosive effects

##### Primary irritation to the skin

|                 |  |
|-----------------|--|
| Parameter :     | Primary irritation to the skin ( ETHANOL ; CAS No. : 64-17-5 ) |
| Species :       | Rabbit   |
| Exposure time : | 7 day  |
| Methode :       | OECD 404   |

Result : Not an irritant.

##### Irritation to eyes

|                 |  |
|-----------------|--|
| Parameter :     | Irritation to eyes ( ETHANOL ; CAS No. : 64-17-5 ) |
| Species :       | Rabbit   |
| Exposure time : | 24 h   |
| Methode :       | OECD 405   |

Result : Causes serious eye irritation.

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## Sensitisation

### In case of skin contact

Parameter : Skin sensitisation ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Mouse  
Result : Not sensitising.

## Repeated dose toxicity (subacute, subchronic, chronic)

### Subacute oral toxicity

Parameter : LOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Oral  
Species : Rat  
Effective dose : 4 ml/kg/d  
Exposure time : 98 day  
Methode : OECD 408

### Subacute inhalation toxicity

Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Inhalation  
Species : Rat  
Effective dose : > 20 mg/l  
Exposure time : 26 day

### Additional information

Specific effects: Frequently or prolonged contact with skin may cause dermal irritation. Gastrointestinal complaints  
Causes damage to liver through prolonged or repeated exposure if swallowed. May cause damage to heart through  
prolonged or repeated exposure if swallowed. Ingestion causes nausea, weakness and central nervous system  
effects.

## CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

### Carcinogenicity

Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : Oral  
Species : Mouse  
Effective dose : > 4000 Mg/kg bw/day  
Exposure time : 525 day  
Methode : OECD 451

### Assessment/classification

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

### Germ cell mutagenicity/Genotoxicity

#### In vitro mutagenicity

Parameter : Gene-mutations microorganisms ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Salmonella typhimurium  
Test result : Negative.  
Methode : OECD 471 (Ames test)  
Parameter : Gene-mutations mammalian cells ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Mouse lymphoma cells  
Test result : Negative.  
Methode : OECD 476

#### In vivo mutagenicity

Parameter : Chromosomal aberrations ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Mouse  
Test result : Negative.  
Methode : OECD 478

### Assessment/classification

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.



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**Reproductive toxicity**

**Adverse effects on sexual function and fertility**

Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Mouse  
Effective dose : 21,5 Mg/kg bw/day  
Exposure time : 126 day  
Test result : Negative.  
Methode : OECD 416

**Adverse effects on developmental toxicity**

Parameter : Adverse effects on developmental toxicity ( ETHANOL ; CAS No. : 64-17-5 )  
Exposure route : LOAEL(C)  
Species : Rat  
Effective dose : 8200 Mg/kg bw/day  
Exposure time : 42 day  
Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Rat  
Effective dose : 5200 Mg/kg bw/day  
Exposure time : 42 day  
Test result : Negative.

**Developmental toxicity/teratogenicity**

**One generation reproduction toxicity test**

Parameter : NOAEL(C) ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Mouse  
Effective dose : 13,8 Mg/kg bw/day  
Exposure time : 126 day  
Test result : Negative.  
Methode : OECD 416

**Assessment/classification**

This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

**SECTION 12: Ecological information**

**12.1 Toxicity**

Harmless to aquatic organisms up to the tested concentration

**Aquatic toxicity**

**Acute (short-term) fish toxicity**

Parameter : LC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Pimephales promelas (fathead minnow)  
Effective dose : 15300 mg/l  
Exposure time : 96 h  
Evaluation : Harmless to fish up to the concentration tested.

**Acute (short-term) daphnia toxicity**

Parameter : LC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Ceriodaphnia spec  
Effective dose : 5012 mg/l  
Exposure time : 48 h  
Evaluation : Harmless to daphnia up to the tested concentration.

**Chronic (long-term) daphnia toxicity**

Parameter : NOEC ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Ceriodaphnia spec  
Effective dose : 9,6 mg/l  
Exposure time : 10 day  
Evaluation : Harmless to daphnia up to the tested concentration.

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**Acute (short-term) algae toxicity**

Parameter : EC50 ( ETHANOL ; CAS No. : 64-17-5 )  
Species : Chlorella vulgaris  
Effective dose : 275 mg/l  
Exposure time : 3 day  
Evaluation : Harmless to algae up to the concentration tested.  
Methode : OECD 201

**12.2 Persistence and degradability**

**Abiotic degradation**

**Photo-chemical elimination**

Parameter : Photo-chemical elimination ( ETHANOL ; CAS No. : 64-17-5 )  
Type : Photo-chemical elimination  
Result : 500000 cm<sup>3</sup>  
40 h

**Biodegradation**

Analytical method : Biodegradation ( ETHANOL ; CAS No. : 64-17-5 )  
Parameter : Degree of elimination  
Degradation rate : 84 %  
Time : 20 day  
Evaluation : Biodegradable.

**12.3 Bioaccumulative potential**

Parameter : Partition coefficient n-octanol /water (log P O/W) ( ETHANOL ; CAS No. : 64-17-5 )  
Result : -0,35

**12.4 Mobility in soil**

No information available.

**12.5 Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**12.6 Other adverse effects**

None

**12.7 Further ecological information**

None

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Delivery to an approved waste disposal company. Contaminated packages must be completely emptied and can be re-used following proper cleaning. Handle contaminated packages in the same way as the substance itself.

**Product/Packaging disposal**

**Waste codes/waste designations according to EWC/AVV**

Waste code : 15 01 02\* plastic packaging  
Waste code : 15 01 10\* packaging containing residues of or contaminated by dangerous substances  
Waste code : 13 07 03\* other fuels (including mixtures)

**SECTION 14: Transport information**

**14.1 UN number**

UN 1170

**14.2 UN proper shipping name**

**Land transport (ADR/RID)**

ETHANOL, SOLUTION

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**Sea transport (IMDG)**

ETHANOL, SOLUTION

**Air transport (ICAO-TI / IATA-DGR)**

ETHANOL, SOLUTION

**14.3 Transport hazard class(es)**

**Land transport (ADR/RID)**

Class(es) : 3  
Classification code : F1  
Hazard identification number (Kemler No.) : 33  
Tunnel restriction code : D/E  
Special provisions : LQ 1 I · E 2  
Hazard label(s) : 3

**Sea transport (IMDG)**

Class(es) : 3  
EmS-No. : F-E / S-D  
Special provisions : LQ 1 I · E 2  
Hazard label(s) : 3

**Air transport (ICAO-TI / IATA-DGR)**

Class(es) : 3  
Hazard label(s) : 3

**14.4 Packing group**

II

**14.5 Environmental hazards**

Land transport (ADR/RID) : No  
Sea transport (IMDG) : No  
Air transport (ICAO-TI / IATA-DGR) : No

**14.6 Special precautions for user**

None

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not applicable

**SECTION 15: Regulatory information**

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

This chemical is a VOC according to 99/13/EC. This chemical is a VOC according to 2004/42/EC.

**EU legislation**

**Other regulations (EU)**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) The product is classified and labelled according to EC directives or corresponding national laws.

**National regulations**

**Water hazard class (WGK)**

slightly hazardous to water (WGK 1) Classification according to VwVwS, Annex 4.

**15.2 Chemical Safety Assessment**

For this substance a chemical safety assessment has not been carried out.

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## SECTION 16: Other information

### 16.1 Indication of changes

02. Classification of the substance or mixture · 02. Label elements · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] - Hazard components for labelling · 02. Labelling (67/548/EEC or 1999/45/EC) · 03. Hazardous ingredients · 08. Occupational exposure limit values · 14. UN proper shipping name - Land transport (ADR/RID) · 14. UN proper shipping name - Sea transport (IMDG) · 14. UN proper shipping name - Air transport (ICAO-TI / IATA-DGR) · 14. Transport hazard class(es) - Land transport (ADR/RID) · 14. Transport hazard class(es) - Sea transport (IMDG) · 14. Transport hazard class(es) - Air transport (ICAO-TI / IATA-DGR)

### 16.2 Abbreviations and acronyms

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road ASTM = American Society of Testing and Materials (US) CAS No = Chemical Abstracts Service Number (see ACS - American Chemical Society) CMR = Carcinogenic, Mutagenic or Toxic for Reproduction DNEL = Derived No-Effect Level DMEL = Derived Minimal Effect Level DT50 = Time for 50% loss; half-life EbC50 = Median effective concentration (biomass, e.g. of algae) EC50 = Median effective concentration EINECS = European Inventory of Existing Commercial Chemical Substances ELINCS = European List of Notified (New) Chemicals (see Tab 7, Background - Guide) ErC50 = Median effective concentration (growth rate, e.g. of algae) EWC = European Waste Catalogue IATA = International Air Transport Association IC50 = Concentration that produces 50% inhibition IMDG = International Maritime Dangerous Goods Code IMO = International Maritime Organization LC50 = Concentration required to kill 50% of test organisms LD50 = Dose required to kill 50% of test organisms LEL = Lower Explosive Limit/Lower Explosion Limit LOAEL = Lowest observed adverse effect level MRL = Maximum Residue Limit NOAEL = No Observed Adverse Effect Level NOEC = No observed effect concentration NOEL = No Observable Effect Level NVIC = Nationaal Vergiftigingen Informatiecentrum OECD = Organisation for Economic Cooperation and Development OEL = Occupational Exposure Limits PBT = Persistent, Bioaccumulative or Toxic PNEC = Previsible Non Effect Concentration REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals. STEL = Short-Term Exposure Limit TWA = Time-Weighted Average WGK = Wassergefährdungsklasse zPzB/vPvB= Very Persistent and Very Bioaccumulative

### 16.3 Key literature references and sources for data

None

### 16.5 Relevant R-, H- and EUH-phrases (Number and full text)

|      |                                     |
|------|-------------------------------------|
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation.      |
| R11  | Highly flammable.                   |
| R36  | Irritating to eyes.                 |

### 16.6 Training advice

None

### 16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.