



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

**1.1 Product identifier**

**vaPUREx<sup>®</sup> 3% F-15 #7343**

**UFI: 8FAN-R031-C00K-48GV**

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

Use of the substance/mixture  
Fire-extinguishing foam

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

|  |  |
|--|--|
| Manufacturer                           | Fabrik chemischer Präparate von Dr. R. Sthamer GmbH & Co. KG |
| Street                                 | Liebigstraße 5   |
| Postal code/City                       | D-22113 Hamburg  |
| Country                                | Deutschland  |
| Telephone                              | +49 (0)40/736168-0   |
| Telefax                                | +49 (0)40/736168-60  |
| E-mail (competent person)              | labor@sthamer.com  |
| Website                                | http://sthamer.com   |
| Department responsible for information | Dr. Prall, +49 (0)40/736168-31                               |
| Emergency telephone number             | +49 (0)40/736168-0   |

**1.4 Emergency telephone number**

GIZ-Nord Poisons Centre of the University of Göttingen  
Telephone +49 (0)551/19240

**SECTION 2: Hazards identification**

The information in this section and in all following sections (unless otherwise stated) refer to the product in the delivery condition (concentrate). The ready-to-use solutions prepared according to the dilution recommendation are to be classified differently (see Section 16).

**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [CLP]  
Skin Irrit. 2 H315 - Eye Irrit. 2 H319

**2.2 Label elements**

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



|                          |                |  |
|--------------------------|----------------|--|
| Signal word              | <b>WARNING</b> |  |
| Hazard statements        | H315           | Causes skin and eye irritation.  |
|                          | H319           | Causes serious eye irritation.   |
| Precautionary statements | P262           | Do not get in eyes, on skin, or on clothing.   |
|                          | P273           | Avoid release to the environment.  |
|                          | P280           | Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/....                                |
|                          | P301+P330+P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting.   |
|                          | P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].                         |
|                          | P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |

**Classification procedure** On basis of test data./Experimental data**2.3 Other hazards****Endocrine disrupting properties**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

This substance does not have endocrine disrupting properties with respect to humans.

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

This substance does not have endocrine disrupting properties with respect to humans.

**(2-METHOXYMETHYLOXY)PROPANOL:**

This substance does not have endocrine disrupting properties with respect to humans.

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

This substance does not have endocrine disrupting properties with respect to humans.

**Results of PBT and vPvB assessment**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

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

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

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

**(2-METHOXYMETHYLOXY)PROPANOL:**

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

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The data refer to the product as delivered. The solutions for use produced according to dilution recommendations are to be classified differently.

Can harm the aquatic fauna when entering surface waters.

Can harm the bacteria population in waste water treatment plants when entering the sewerage system.

Breathing is not possible whilst submerged in the foam. Take care when spraying people!

Concentrated surfactant solutions always pose a danger to aquatic life because they greatly reduce the surface tension of water thus disrupting all life processes associated with it. In sewage treatment plants, for example, the necessary aeration of the sewage stages can be hindered by the strong foam formation.

**SECTION 3: Composition / information on ingredients****3.1 Substances**

not applicable

**3.2 Mixtures****1,2-ETHANDIOL**

CAS No.: 107-21-1

EC No.: 203-473-3

REACH No.: 01-2119456816-28-XXXX

Concentration: 5 - 10%

Classification according to Regulation (EC) No 1272/2008 [CLP]: GHS07-GHS08; Acute Tox. 4-STOT RE 2; H302-H373.8

**COCOAMIDOPROPYL HYDROXYSULTAINE**

CAS No.: 68139-30-0

EC No.: 268-761-3

REACH No.: 01-2120785852-41-XXXX



Concentration: 1 - 5%  
Classification according to Regulation (EC) No 1272/2008 [CLP]: GHS05; Eye Dam. 1-Skin Irrit. 2; H315-H318

**(2-METHOXYMETHYLOXY)PROPANOL**

CAS No.: 34590-94-8  
EC No.: 252-104-2  
REACH No.: 01-2119450011-60-XXXX  
Concentration: 5 - 10%

The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].  
Substance with a community workplace exposure limit

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES**

Concentration: 20 - 25%  
The substances are not classified as dangerous according to Regulation (EC) No. 1272/2008 [CLP].

**WATER**

CAS No.: 7732-18-5  
Concentration: 50 - 69%  
The substance is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

The product does not contain any relevant amounts of substances that are on the SVHC list.

Full text of H- and EUH-statements: see section 16.

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

Remove contaminated, saturated clothing immediately.  
Wash thoroughly the body (shower or bath).  
Observe risk of aspiration if vomiting occurs.  
When in doubt or if symptoms are observed, get medical advice.

**Following inhalation**

Provide fresh air.  
Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

**In case of skin contact**

Wash immediately with: Water

**After eye contact**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

**Following ingestion**

Do NOT induce vomiting.  
If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

Dizziness  
Nausea  
Gastrointestinal complaints

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

If unconscious but breathing normally, place in recovery position and seek medical advice.  
IF SWALLOWED: Immediately call a POISON CENTER/doctor/....



## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

The product itself does not burn.  
Co-ordinate fire-fighting measures to the fire surroundings.

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

The product itself does not burn.

### 5.3 Advice for firefighters

Regardless of the admixture of a foam agent, extinguishing water can be heavily contaminated with hazardous substances due to the absorption of fire residues and should therefore, if possible, not enter the sewage system or bodies of water.

## SECTION 6: Accidental release measures

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

Provide adequate ventilation.

### 6.2 Environmental precautions

Cover drains.  
Do not allow to enter into soil/subsoil.  
Do not allow to enter into surface water or drains.

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

Take up mechanically, placing in appropriate containers for disposal.  
Treat the recovered material as prescribed in the section on waste disposal.  
Suitable material for taking up  
Sand  
Sawdust  
Chemical binding agents, containing acids

### 6.4 Reference to other sections

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid  
Skin contact  
Eye contact  
Wear personal protection equipment (refer to section 8).

#### Measures to prevent fire

The product is not  
oxidising  
Combustible  
Flammable  
Explosive



Highly flammable  
No special fire protection measures are necessary.

**Environmental precautions**

Shafts and sewers must be protected from entry of the product.

**Advices on general occupational hygiene**

When using do not eat, drink, smoke, sniff.

**7.2 Conditions for safe storage, including any incompatibilities****Technical measures and storage conditions**

Do not store at temperatures above: +50°C

**Requirements for storage rooms and vessels**

Suitable container/equipment material

Refined steel

Polyethylene (PE)

Unsuitable container/equipment material

Aluminium

Light metal

Copper

Zinc

Alloy, containing copper

Alloy, contains light metal

Iron.

Steel

**Hints on joint storage**

Storage class

12: non-combustible liquids that cannot be assigned to any of the above storage classes

**7.3 Specific end use(s)**

Fire-extinguishing foams based on synthetic surfactants

Do not use for cleaning purposes.

**Recommendation**

Observe technical data sheet.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

**Substance name:** 1,2-ETHANDIOL

CAS No.: 107-21-1

REACH No.: 01-2119456816-28-XXXX

**United Kingdom**

Long-term occupational exposure limit value: 20 ppm; Limit value type (country of origin): TWA (EN)

short-term occupational exposure limit value: 40 ppm; Limit value type (country of origin): STEL (EN)

**European Union**

Long-term occupational exposure limit value: 20 ppm; Limit value type (country of origin): TWA (EC)

short-term occupational exposure limit value: 40 ppm; Limit value type (country of origin): STEL (EC)

**Germany**

Long-term occupational exposure limit value: 10 ppm; Limit value type (country of origin): AGW (DE)

short-term occupational exposure limit value: 20 ppm; Limit value type (country of origin): Peak (DE)

**Ireland**

Long-term occupational exposure limit value: 20 ppm; Limit value type (country of origin): TWA (IE)

short-term occupational exposure limit value: 40 ppm; Limit value type (country of origin): STEL (IE)

**Substance name: (2-METHOXYMETHYLOXY)PROPANOL**

CAS No.: 34590-94-8

REACH No.: 01-2119450011-60-XXXX

**United Kingdom**

Long-term occupational exposure limit value: 50 ppm; Limit value type (country of origin): TWA (EN)

short-term occupational exposure limit value: ---; Limit value type (country of origin): STEL (EN)

**European Union**

Long-term occupational exposure limit value: 50 ppm; Limit value type (country of origin): TWA (EC)

short-term occupational exposure limit value: ---; Limit value type (country of origin): STEL (EC)

**Germany**

Long-term occupational exposure limit value: 50 ppm; Limit value type (country of origin): AGW (DE)

short-term occupational exposure limit value: ---; Limit value type (country of origin): Peak (DE)

**Ireland**

Long-term occupational exposure limit value: 50 ppm; Limit value type (country of origin): TWA (IE)

short-term occupational exposure limit value: ---; Limit value type (country of origin): STEL (IE)

**8.2 Exposure controls****Advices on general occupational hygiene**

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Avoid contact with skin, eyes and clothes.

Remove contaminated, saturated clothing.

Wash contaminated clothing prior to re-use.

Wash hands before breaks and after work.

Apply skin care products after work.

**Eye/face protection**

Suitable eye protection

Eye glasses with side protection

goggles

Face protection shield

Recommended eye protection articles

DIN EN 166

**Hand protection**

Suitable gloves type

Gloves with long cuffs

Suitable material

NBR (Nitrile rubber)

Butyl caoutchouc (butyl rubber)

Breakthrough time

120 min.

Thickness of the glove material

&gt; 0.6 mm

Recommended glove articles

EN ISO 374

Breakthrough times and swelling properties of the material must be taken into consideration.

**Body protection**

Body protection: not required.

**Respiratory protection**

Usually no personal respirative protection necessary.

**Environmental exposure controls**

Store concentrate according to national regulations.

Do not let the concentrate get into the environment.

If possible, hold back the application solution and dispose of after use.

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

|   |   |                                 |              |                   |
|---|---|---------------------------------|--------------|-------------------|
| a) Physical state                                     | : | Liquid                          |              |                   |
| b) Colour   | : | colourless / yellow             |              |                   |
| c) Odour  | : | Glycol, Ether, Surfactant       |              |                   |
| d) Melting point/freezing point                       | : | -15°C                           | EN 1568:2018 |                   |
| e) Melting point/freezing point                       | : | > 100°C                         | DIN 51751    |                   |
| f) Flammability                                       | : | not applicable                  |              |                   |
| g) Lower and upper explosion limit/flammability limit | : | No data available               |              |                   |
| h) Flash point  | : | No flash point up to 100 °C.    |              |                   |
| i) Ignition temperature in °C                         | : | not applicable                  |              |                   |
| j) Decomposition temperature                          | : | No data available               |              |                   |
| k) pH at °C 20  | : | 6,5 - 8,5                       | DIN 19268    |                   |
| l) Viscosity at °C 20                                 | : | < 800(400) mPa*s @ 75(375) 1/s  | DIN 53019    | structure viscous |
|   | : | < 1500(750) mPa*s @ 75(375) 1/s | DIN 53019    | structure viscous |
| m) Solubility   | : | Water: completely miscible      | OECD 105     |                   |
| n) Partition coefficient n-octanol/water (log value)  | : | not applicable                  |              |                   |
| o) Vapour pressure                                    | : | No data available               |              |                   |
| p) Density and/or relative density at °C 20           | : | 1,050 - 1,090 g/ml              | DIN 12791    |                   |
| q) Relative vapour density                            | : | No data available               |              |                   |
| r) particle characteristics                           | : | not applicable                  |              |                   |

**9.2 Other information****Information with regard to physical hazard classes**

|  |   |   |
|--|---|---|
| a) Explosives  | : | not applicable                          |
| b) Explosives  | : | not applicable                          |
| c) Aerosols  | : | not applicable                          |
| d) Oxidising gas   | : | not applicable                          |
| e) Gases under pressure  | : | not applicable                          |
| f) Flammable liquids   | : | not applicable                          |
| g) Flammable solids  | : | not applicable                          |
| h) Self-reactive substances and mixtures                                     | : | not applicable                          |
| i) Pyrophoric liquids  | : | not applicable                          |
| j) Pyrophoric solids   | : | not applicable                          |
| k) Self-heating substances and mixtures                                      | : | not applicable                          |
| l) Substances or mixtures which, in contact with water, emit flammable gases | : | not applicable                          |
| m) Oxidising liquids   | : | not applicable                          |
| n) Oxidizing solids  | : | not applicable                          |
| o) Organic peroxides   | : | not applicable                          |
| p) Corrosive to metals   | : | See section 7 of the safety data sheet. |



- q) Desensitised explosives : not applicable
  
- Other safety characteristics**
- a) Mechanical sensitivity : not applicable
- b) Self-accelerating polymerisation temperature (SAPT) : not applicable
- c) formation of explosible dust/air mixtures : not applicable
- d) acid/alkaline reserve : not applicable
- e) Evaporation rate : No data available
- f) miscibility : Water: completely miscible
- g) Conductivity : ~ 1000 µS/cm
- h) Corrosiveness : Skin corrosion/irritation: irritant  
Serious eye damage/irritation: irritant
- i) gas group : not applicable
- j) Redox potential : not applicable
- k) radical formation potential : not applicable
- l) photocatalytic properties : not applicable

**Additional hazards**

Breathing is not possible whilst submerged in the foam. Take care when spraying people!

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

**Materials to avoid**

- Alkali (lye), concentrated
- Alkali metals
- Acid, concentrated
- Oxidising agent, strong
- Reducing agent, strong
- Acid halides

**10.2 Chemical stability**

No special measures are necessary.

**10.3 Possibility of hazardous reactions**

No special measures are necessary.

**10.4 Conditions to avoid**

Do not store at temperatures above: +50°C

**10.5 Incompatible materials**

See section 7. No additional measures necessary.

**10.6 Hazardous decomposition products**

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**SECTION 11: Toxicological information**

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

- a) Acute toxicity



**Acute oral toxicity**Preparation related information

LD50 > 2000 mg/kg The acute oral toxicity is corresponding to GHS-category 5.

Species Rat

Method On basis of test data.: OECD 420

Information on ingredients**1,2-ETHANDIOL:**

LD50 (7d) 2310 mg/kg ==>

Harmful if swallowed.

(Source: ECHA database «Registered substances»)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

LD50 (14d) 2950 mg/kg ==>

The acute oral toxicity is corresponding to GHS-category 5.

(Source: ECHA database «Registered substances»)

**(2-METHOXYMETHYLOXY)PROPANOL:**

LC50 (14d) >5000 mg/kg ==>

The acute oral toxicity is corresponding to GHS-category 5.

(Source: ECHA database «Registered substances»)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

The substances are not classified as dangerous according to Regulation (EC) No. 1272/2008 [CLP].

No classification in the above-mentioned hazard class

(Source: Safety Data Sheet)

**Acute dermal toxicity**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

LD50 (14d) > 3500 mg/kg ==>

The acute dermal toxicity is corresponding to GHS-category 5.

(Source: ECHA database «Registered substances»)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

No data available

No information available. No classification in the above-mentioned hazard class

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

LC50 (14d) > 2000 mg/kg ==>

The acute dermal toxicity is corresponding to GHS-category 5.

(Source: ECHA database «Registered substances»)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

The substances are not classified as dangerous according to Regulation (EC) No. 1272/2008 [CLP].

No classification in the above-mentioned hazard class

(Source: Safety Data Sheet)

**Acute inhalation toxicity**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

LC50 (6h) > 2,5 mg/L ==>

The acute inhalation toxicity related to vapours is corresponding to GHS-category 5.

(Source: ECHA database «Registered substances»)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

No data available

No information available. No classification in the above-mentioned hazard class

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

NOEC (7h) 275 ppm ==&gt;

The acute inhalation toxicity related to vapours is corresponding to GHS-category 5.

(Source: ECHA database «Registered substances»)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

The substances are not classified as dangerous according to Regulation (EC) No. 1272/2008 [CLP].

No classification in the above-mentioned hazard class

(Source: Safety Data Sheet)

**b) Skin corrosion/irritation**Preparation related information

Causes skin irritation.

Species Albino rabbit

Method On basis of test data.: OECD 404

Information on ingredients**1,2-ETHANDIOL:**

non-irritant.

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

Causes skin irritation.

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

non-irritant.

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

non-irritant.

(Source: Safety Data Sheet)

**c) Serious eye damage/irritation**Preparation related information

Causes eye irritation.

Species Albino rabbit

Method On basis of test data.: OECD 404

Information on ingredients**1,2-ETHANDIOL:**

non-irritant.

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

Causes serious eye damage.

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

non-irritant.

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

non-irritant.

(Source: Safety Data Sheet)

**d) Respiratory or skin sensitisation**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

not sensitising.

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**



not sensitising.

(Source: Safety Data Sheet)

(2-METHOXYMETHYLOXY)PROPANOL:

not sensitising.

(Source: Safety Data Sheet)

INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:

not sensitising.

(Source: Safety Data Sheet)

**e) Germ cell mutagenicity**

Preparation related information

There are no data available on the mixture itself.

Information on ingredients

1,2-ETHANDIOL:

No indications of human germ cell mutagenicity exist.

(Source: Safety Data Sheet)

COCOAMIDOPROPYL HYDROXYSULTAINE:

No indications of human germ cell mutagenicity exist.

(Source: Safety Data Sheet)

(2-METHOXYMETHYLOXY)PROPANOL:

No indications of human germ cell mutagenicity exist.

(Source: Safety Data Sheet)

INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:

No indications of human germ cell mutagenicity exist.

(Source: Safety Data Sheet)

**f) Carcinogenicity**

Preparation related information

There are no data available on the mixture itself.

Information on ingredients

1,2-ETHANDIOL:

No indication of human carcinogenicity.

(Source: Safety Data Sheet)

COCOAMIDOPROPYL HYDROXYSULTAINE:

No indication of human carcinogenicity.

(Source: Safety Data Sheet)

(2-METHOXYMETHYLOXY)PROPANOL:

No indication of human carcinogenicity.

(Source: Safety Data Sheet)

INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:

No indication of human carcinogenicity.

(Source: Safety Data Sheet)

**g) Reproductive toxicity**

Preparation related information

There are no data available on the mixture itself.

Information on ingredients

1,2-ETHANDIOL:

No indications of human reproductive toxicity exist.

(Source: Safety Data Sheet)

COCOAMIDOPROPYL HYDROXYSULTAINE:

No indications of human reproductive toxicity exist.

(Source: Safety Data Sheet)

(2-METHOXYMETHYLOXY)PROPANOL:

No indications of human reproductive toxicity exist.

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No indications of human reproductive toxicity exist.

(Source: Safety Data Sheet)

**h) STOT-single exposure**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

No known symptoms to date.

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

No known symptoms to date.

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

No known symptoms to date.

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No known symptoms to date.

(Source: Safety Data Sheet)

**i) STOT-repeated exposure**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

May cause damage to kidneys through prolonged or repeated exposure if swallowed.

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

No known symptoms to date.

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

No known symptoms to date.

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No known symptoms to date.

(Source: Safety Data Sheet)

**j) Aspiration hazard**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

No known symptoms to date.

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

No known symptoms to date.

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

No known symptoms to date.

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No known symptoms to date.

(Source: Safety Data Sheet)

**11.2 Information on other hazards**

**Endocrine disrupting properties**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

This substance does not have endocrine disrupting properties with respect to humans.

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

This substance does not have endocrine disrupting properties with respect to humans.

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

This substance does not have endocrine disrupting properties with respect to humans.

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

This substance does not have endocrine disrupting properties with respect to humans.

(Source: Safety Data Sheet)

**Other information**

Breathing is not possible whilst submerged in the foam. Take care when spraying people!

**SECTION 12: Ecological information****12.1 Toxicity****Acute (short-term) fish toxicity**Preparation related information

Effective dose LC50 : ~ 910 mg/L  
Exposure time : 96 h  
Species : *Leuciscus idus* (golden orfe)  
Method : On basis of test data.: OECD 203

Information on ingredients**1,2-ETHANDIOL:**

LC50 (96h) > 72860 mg/L  
(Source: ECHA database «Registered substances»)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

LC50 (96h) > 1 mg/L  
(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

LC50 (96h) > 10000 mg/L  
(Source: ECHA database «Registered substances»)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No classification in the above-mentioned hazard class  
(Source: Safety Data Sheet)

**Acute (short-term) toxicity to crustacea**Preparation related information

Effective dose EC50 : ~ 700 mg/L  
Exposure time : 48 h  
Species : *Daphnia magna* (Big water flea)  
Method : On basis of test data.: OECD 202

Information on ingredients**1,2-ETHANDIOL:**

EC50 (48h) > 13900 mg/L  
(Source: ECHA database «Registered substances»)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**



EC50 (48h) 11 mg/L; NOEC (48h) 9,2 mg/L  
(Source: ECHA database «Registered substances»)

**(2-METHOXYMETHYLOXY)PROPANOL:**

EC50 (48h) 1919 mg/L  
(Source: ECHA database «Registered substances»)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No classification in the above-mentioned hazard class  
(Source: Safety Data Sheet)

**Acute (short-term) toxicity to algae and cyanobacteria**Preparation related information

Effective dose EC50 : > 1000\* mg/L  
Exposure time : 72 h  
Species : Scenedesmus subspicatus  
Method : Bridging principle "Substantially similar mixtures".

Information on ingredients**1,2-ETHANDIOL:**

EC50 (96h) > 6500 mg/L; NOEC (96h) 479 mg/L  
(Source: ECHA database «Registered substances»)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

EC50 (72h) 0,32 mg/L; NOEC (72h) 0,045 mg/L  
(Source: ECHA database «Registered substances»)

**(2-METHOXYMETHYLOXY)PROPANOL:**

EC50 (96h) > 1000 mg/L; NOEC (96h) 569 mg/L  
(Source: ECHA database «Registered substances»)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No classification in the above-mentioned hazard class  
(Source: Safety Data Sheet)

**Effects in sewage plants**Preparation related information

Analytical method : Respiratory inhibition of municipal activated sludge.  
300 mg/L ► Concentration : 100% Dilution : > 3333  
10000 mg/L ► Concentration : 3% Dilution : > 100

Method : On basis of test data.: DIN 38412/part 3 (TTC)

Information on ingredients**1,2-ETHANDIOL:**

NOEC (0,5h) > 1995 mg/L  
(Source: ECHA database «Registered substances»)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

No data available  
(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

NOEC (3h) 4168 mg/L  
(Source: ECHA database «Registered substances»)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No classification in the above-mentioned hazard class  
(Source: Safety Data Sheet)

Technically correct releases of minimal concentrations to adapted biological sewage plants, will not disturb the biodegradability of activated sludge.

The product may lead to foaming in sewage plants.

**Remark**

Observe local regulations concerning effluent treatment.



Special pre-treatments are necessary.

\* The statement is derived from products of similar structure or composition.

## 12.2 Persistence and degradability

### Biodegradation

#### Preparation related information

Readily biodegradable (according to OECD criteria).

Degradation rate : ~ 95,3%  
 Test duration : 28 d  
 Analytical method : BOD (% of COD).  
 Method : On basis of test data.: OECD 301F  
 Type : Aerobic biological treatment

#### Information on ingredients

##### 1,2-ETHANDIOL:

> 90% (10d) OECD 301A  
 Readily biodegradable (according to OECD criteria).  
 (Source: ECHA database «Registered substances»)

##### COCOAMIDOPROPYL HYDROXYSULTAINE:

71% (28d) OECD 301 D  
 Readily biodegradable (according to OECD criteria).  
 (Source: ECHA database «Registered substances»)

##### (2-METHOXYMETHYLOXY)PROPANOL:

79% (28d) OECD 301 F  
 Readily biodegradable (according to OECD criteria).  
 (Source: ECHA database «Registered substances»)

##### INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:

> 70% (28d) OECD 301  
 Readily biodegradable (according to OECD criteria).  
 (Source: Safety Data Sheet)

### Chemical oxygen demand (COD)

|                  |                 |        |        |                    |
|------------------|-----------------|--------|--------|--------------------|
| ~ 703000 mg*O2/L | ► Concentration | : 100% | Method | DIN EN 38409-H41-1 |
| ~ 21090 mg*O2/L  | ► Concentration | : 3%   | Method | DIN EN 38409-H41-1 |

### Biochemical oxygen demand

|                  |                 |        |        |               |               |     |
|------------------|-----------------|--------|--------|---------------|---------------|-----|
| ~ 315000 mg*O2/L | ► Concentration | : 100% | Method | DIN EN 1899-1 | Test duration | 5 d |
| ~ 9450 mg*O2/L   | ► Concentration | : 3%   | Method | DIN EN 1899-1 | Test duration | 5 d |

### BOD5/COD ratio

45%

## 12.3 Bioaccumulative potential

#### Preparation related information

There are no data available on the mixture itself.

#### Information on ingredients

##### 1,2-ETHANDIOL:

log Kow -1,36  
 No indication of bioaccumulation potential.  
 (Source: ECHA database «Registered substances»)

##### COCOAMIDOPROPYL HYDROXYSULTAINE:

No data available  
 No information available. No classification in the above-mentioned hazard class  
 (Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

log Kow &lt; 1

No indication of bioaccumulation potential.

(Source: ECHA database «Registered substances»)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

No classification in the above-mentioned hazard class

No information available. No classification in the above-mentioned hazard class

(Source: Safety Data Sheet)

**12.4 Mobility in soil**

If product enters soil, it will be mobile and may contaminate groundwater.

**12.5 Results of PBT and vPvB assessment**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

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

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

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

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

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

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

(Source: Safety Data Sheet)

**12.6 Endocrine disrupting properties**Preparation related information

There are no data available on the mixture itself.

Information on ingredients**1,2-ETHANDIOL:**

This substance does not have endocrine disrupting properties with respect to humans.

(Source: Safety Data Sheet)

**COCOAMIDOPROPYL HYDROXYSULTAINE:**

This substance does not have endocrine disrupting properties with respect to humans.

(Source: Safety Data Sheet)

**(2-METHOXYMETHYLOXY)PROPANOL:**

This substance does not have endocrine disrupting properties with respect to humans.

(Source: Safety Data Sheet)

**INGREDIENTS NOT CLASSIFIED AS HAZARDOUS SUBSTANCES:**

This substance does not have endocrine disrupting properties with respect to humans.

(Source: Safety Data Sheet)

**12.7 Other adverse effects**

—

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Dispose of waste according to applicable legislation.





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

**Waste code product**

16 WASTES NOT OTHERWISE SPECIFIED IN THE LIST

1603 off-specification batches and unused products

160305\* organic wastes containing dangerous substances

**Waste code packaging**

15 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED

1501 packaging (including separately collected municipal packaging waste)

150110\* packaging containing residues of or contaminated by dangerous substances

**Remark**

Delivery to an approved waste disposal company.

Send to a hazardous waste incinerator facility under observation of official regulations.

**SECTION 14: Transport information**

**14.1 UN number or ID number**

none

**14.2 UN proper shipping name**

not applicable

**14.3 Transport hazard class(es)**

Land transport (ADR/RID)

No dangerous good in sense of these transport regulations.

Inland waterway craft (ADN)

No dangerous good in sense of these transport regulations.

Sea transport (IMDG)

No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI / IATA-DGR)

No dangerous good in sense of these transport regulations.

**14.4 Packing group**

not applicable

**14.5 Environmental hazards**

none

Marine pollutant : No

**14.6 Special precautions for user**

none

**14.7 Maritime transport in bulk according to IMO instruments**

not applicable

**SECTION 15: Regulatory information**

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

**EU legislation**

**Regulation (EC) No. 2037/2000 concerning materials, which cause damage to the ozone layer.**

not applicable

**Regulation (EC) No. 304/2003 of the European parliament and of the council concerning the export and import of dangerous chemicals**

not applicable

**Directive 96/59/EC (PCB-guideline)**

not applicable

**Regulation (EC) No. 648/2004 (Detergents regulation)**

The surfactant contained in this mixture complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

**Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).**

Volatile organic compounds (VOC) content in percent by weight:: max. 10

**Regulation (EC) No. 842/2006 on certain fluorinated greenhouse gases**

not applicable

**Regulation (EC) No 2019/1021 [POP/PFOS-Regulation]**

The product is manufactured without the intended addition of organofluorine compounds for the purpose of increasing performance and therefore does not contain any amount of organofluorine substances beyond the regional ubiquitous background pollution (e.g. in the drinking water used for production).

**Regulation (EC) No 2020/784 [PFOA-Regulation]**

The product is manufactured without the intended addition of organofluorine compounds for the purpose of increasing performance and therefore does not contain any amount of organofluorine substances beyond the regional ubiquitous background pollution (e.g. in the drinking water used for production).

**Regulation (EC) No 2021/1297 [C9-C14-PFCA-Regulation]**

The product is manufactured without the intended addition of organofluorine compounds for the purpose of increasing performance and therefore does not contain any amount of organofluorine substances beyond the regional ubiquitous background pollution (e.g. in the drinking water used for production).

**National regulations****Störfallverordnung**

This product is not classified according to StörfallVO.

**Water hazard class**

slightly hazardous to water (WGK 1)

Self-classification according to AwSV (mixture).

**Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)**

not applicable

**15.2 Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information**

The product described in the Safety Data Sheet may only be used for its intended purpose. For exercises please observe the recommendations of the



technical committee of BMU/LAMA. The details in this safety data sheet are based on today's stand of our knowledge and is applicable to the product with regard to appropriate safety precautions. They do not represent any guarantee of the properties of the product and do not establish any legal relationship.

Please refer to our internet website for more information: [www.sthamer.com](http://www.sthamer.com)

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.

**Classification for the 3% application solution of VAPUREX 3% F-15 #7343:**

The information in this safety data sheet only applies to the unchanged product in the delivery condition. An application solution prepared therefrom by diluting it with water as recommended usually has significantly fewer hazardous features due to the dilution principle and can even be unclassified. See also the environmental data sheet provided by us.

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

|        |  |
|--------|--|
| H302   | Harmful if swallowed or if inhaled.  |
| H315   | Causes skin and eye irritation.  |
| H318   | Causes serious eye damage.   |
| H373.8 | May cause damage to kidneys through prolonged or repeated exposure if swallowed. |