

## SAFETY DATA SHEET

# FabULOUS™

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

#### 1.1. Product identifier

**Trade name**

FabULOUS™

**Product no.**

A0-PU1-020, A1-PFK-020

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

**Relevant identified uses of the substance or mixture**

Antibody fragmentation reagent, For Research use only  
Restricted to professional and industrial use.

**Uses advised against**

None known.

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

**Company and address**

**Genovis AB**

Box 4  
244 21 Kävlinge  
Sweden  
+46 (0)46 10 12 30  
www.genovis.com

**E-mail**

info@genovis.com

**Revision**

13/04/2026

**SDS Version**

1.0

#### 1.4. Emergency telephone number

In urgent situations: Call 112 and request the poison information centre. (24h service)  
Giftnotrufzentrale Berlin, Emergency telephone: +49 30 19240 (day and night)  
See also section 4 for first aid measures.

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Not classified according to Regulation (EC) No. 1272/2008 (CLP).

#### 2.2. Label elements

**Hazard pictogram(s)**

Not applicable.

**Signal word**

Not applicable.

**Hazard statement(s)**

Not applicable.

**Precautionary statement(s)**

**General**

Not applicable.

**Prevention**

Not applicable.

**Response**

Not applicable.

**Storage**

Not applicable.

**Disposal**

Not applicable.

**Hazardous substances**

Contains no substances that need to be listed on the label.

**Additional labelling**

**2.3. Other hazards**

**Additional warnings**

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

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

**3.1. Substances**

Not applicable. This product is a mixture.

**3.2. Mixtures**

Product/substance	Identifiers	% w/w	Classification	Note
FabULOUS®	CAS No.: EC No.: REACH: Index No.:	<=10%		

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

**Other information**

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**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

**Inhalation**

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

**Skin contact**

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

**Eye contact**

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

**Ingestion**

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink. In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do

not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

#### Burns

Not applicable.

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

None known.

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

Treat symptomatically.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

#### 5.3. Advice for firefighters

No specific requirements.

### SECTION 6: Accidental release measures

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

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

Limit spillage, sweep up and shovel into appropriate containers for disposal. Store in suitable, closed containers for disposal.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

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

Joint storage is permitted for products in storage classes: 2A, 2B, 3, 4.1B, 4.2, 4.3, 5.1A, 5.1B, 5.2, 6.1A, 6.1B, 6.1C, 6.1D, 8A, 8B, 10, 11, 12, 13

Restrictions apply to joint storage of products in storage class: 4.1A. See the Explosion Ordinance (SprengV).

Restrictions apply to joint storage of products in storage class: 5.1C. See the Dangerous Substances Ordinance (GefStoffV) Annex I (Ammonium nitrate) and TRGS 511.

Joint storage is NOT allowed for products in all other storage classes.

#### Recommended storage material

Keep only in original packaging.

#### Storage class

Storage class 13 (Non-combustible solids).

TRGS 510 - Storage of hazardous substances in non-stationary containers.

**Storage conditions**

Dry, cool and well ventilated  
0 - 30 °C

**Incompatible materials**

Strong oxidizing agents

**7.3. Specific end use(s)**

This product should only be used for applications quoted in section 1.2.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

No substances are listed in the national list of substances with an occupational exposure limit.

**DNEL**

No data available.

**PNEC**

No data available.

**8.2. Exposure controls**

Apply general control to prevent unnecessary exposure

**General recommendations**

Smoking, drinking and consumption of food is not allowed in the work area.

**Exposure scenarios**

There are no exposure scenarios implemented for this product.

**Exposure limits**

Occupational exposure limits have not been defined for the substances in this product.

**Appropriate technical measures**

Apply standard precautions during use of the product. Avoid inhalation of gas or dust.

**Hygiene measures**

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

**Measures to avoid environmental exposure**

No specific requirements.

**Individual protection measures, such as personal protective equipment**


**Generally**

Use only CE marked protective equipment.

**Respiratory Equipment**

Type	Class	Colour	Standards	
S/SL	P2	White	EN149	

**Skin protection**

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

**Hand protection**

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	-	> 480	EN374	

### Eye protection

Type	Standards
Safety glasses	EN166



## SECTION 9: Physical and chemical properties

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

#### Physical state

Solid

#### Colour

White

#### Odour / Odour threshold

None

#### pH

>7.6-<8

#### Density (g/cm<sup>3</sup>)

No data available

#### Relative density

No data available

#### Kinematic viscosity

No data available

#### Particle characteristics

No data available

#### Phase changes

##### Melting point/Freezing point (°C)

No data available

##### Softening point/range (°C)

Does not apply to solids.

##### Boiling point (°C)

No data available

##### Vapour pressure

No data available

##### Relative vapour density

No data available

##### Decomposition temperature (°C)

No data available

#### Data on fire and explosion hazards

##### Flash point (°C)

No data available

##### Flammability (°C)

No data available

##### Auto-ignition temperature (°C)

No data available

##### Lower and upper explosion limit (% v/v)

No data available

#### Solubility

##### Solubility in water

Soluble

##### n-octanol/water coefficient (LogKow)

No data available

##### Solubility in fat (g/L)

No data available

#### 9.2. Other information

Evaporation rate (n-butylacetate = 100)

No data available

Other physical and chemical parameters

No data available.

Oxidizing properties

No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No data available.

#### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

#### 10.3. Possibility of hazardous reactions

None known.

#### 10.4. Conditions to avoid

Extremes of temperature

Frost

#### 10.5. Incompatible materials

Strong oxidizing agents

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### 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.

##### Skin corrosion/irritation

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

##### Serious eye damage/irritation

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

##### Respiratory sensitisation

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

##### 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.

##### Symptoms related to the physical, chemical and toxicological characteristics

None known.

#### 11.2. Information on other hazards

### Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

### Other information

None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

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

### 12.2. Persistence and degradability

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

### 12.3. Bioaccumulative potential

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

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

### 12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

### 12.7. Other adverse effects

None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product is not covered by regulations on dangerous waste.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

### EWC code

Not applicable.

### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

## SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR/A DN/RID	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

### Additional information

Not dangerous goods according to ADR/ADN/RID, IATA and IMDG.

### 14.6. Special precautions for user

Not applicable.

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

No data available.

## SECTION 15: Regulatory information

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

#### Restrictions for application

Restricted to professional users.

#### Demands for specific education

No specific requirements.

#### SEVESO - Categories / dangerous substances

Not applicable.

#### WGK classification

WGK class: WGK 3

#### Additional information

Not applicable.

#### Sources

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

### 15.2. Chemical safety assessment

No

## SECTION 16: Other information

### Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EC = Effective concentration

ED = Effective dose

EINECS = European Inventory of Existing Commercial chemical Substances

EL = Effective Loading

ErC = Concentration associated with x% growth rate response

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

HP = Hazardous Property code

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IC = X maximum inhibitory concentration

IMDG = International Maritime Dangerous Goods

LC = Lethal concentration

LCLo = Value is the lowest concentration of a material in air reported to have caused the death of animals or humans

LD = Lethal dose

LOAEC = Lowest Observed Adverse Effect Concentration

LOAEL = Lowest Observed Adverse Effect Level

LOEC = Lowest Observed Effect Concentration

LogKow = logarithm of the n-octanol/water coefficient

LL = Lethal Loading

M = For multiplication factor

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NOAEC = No Observed Adverse Effect Concentration

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOELR = No Observable Effect Loading Rate

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

Not applicable.

#### The safety data sheet is validated by

Stephan Björk

#### Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: DE-en

## SAFETY DATA SHEET

# CaptureSelect™ LC-Kappa (mur)

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

#### 1.1. Product identifier

##### Trade name

CaptureSelect™ LC-Kappa (mur)

##### Product no.

CS-LKM-005, A1-PFK-020

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

##### Relevant identified uses of the substance or mixture

For Research use only, Antibody purification  
Restricted to professional and industrial use.

##### Uses advised against

None known.

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

##### Company and address

###### **Genovis AB**

Box 4  
244 21 Kävlinge  
Sweden  
+46 (0)46 10 12 30  
www.genovis.com

##### E-mail

info@genovis.com

##### Revision

21/04/2026

##### SDS Version

1.0

#### 1.4. Emergency telephone number

In urgent situations: Call 112 and request the poison information centre. (24h service)  
Giftnotrufzentrale Berlin, Emergency telephone: +49 30 19240 (day and night)  
See also section 4 for first aid measures.

### SECTION 2: Hazards identification

Classified according to Regulation (EC) No. 1272/2008 (CLP).

#### 2.1. Classification of the substance or mixture

Flam. Liq. 3; H226, Flammable liquid and vapour.

#### 2.2. Label elements

##### Hazard pictogram(s)



##### Signal word

Warning

##### Hazard statement(s)

Flammable liquid and vapour. (H226)

### Precautionary statement(s)

#### General

Not applicable.

#### Prevention

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

Keep container tightly closed. (P233)

#### Response

In case of fire: Use water mist/carbon dioxide/alcohol-resistant foam to extinguish. (P370+P378)

#### Storage

Store in a well-ventilated place. Keep cool. (P403+P235)

#### Disposal

Dispose of contents/container in accordance with local regulation. (P501)

### Hazardous substances

Contains no substances that need to be listed on the label.

### Additional labelling

#### 2.3. Other hazards

##### Additional warnings

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification. This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2023/707.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable. This product is a mixture.

### 3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
ethanol;ethyl alcohol	CAS No.: 64-17-5 EC No.: 200-578-6 REACH: Index No.: 603-002-00-5	10-20%	Flam. Liq. 2, H225	
CaptureSelect® Affinity Ligand	CAS No.: EC No.: REACH: Index No.:	1-10%		

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

### Other information

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

#### Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

#### Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

#### Eye contact

If in eyes: Flush eyes with water or saline water (20-30 °C) for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

#### Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

#### Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

None known.

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

Treat symptomatically.

#### Information to medics

Bring this safety data sheet or the label from this product.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

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

Flammable liquid and vapour.

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Carbon oxides (CO / CO<sub>2</sub>)

#### 5.3. Advice for firefighters

To avoid contact with the substance, wear self-contained breathing apparatus and protective clothing.

### SECTION 6: Accidental release measures

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

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Ensure adequate ventilation, especially in confined areas.

Contaminated areas may be slippery.

#### 6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc.

Keep unauthorized persons away from the spill

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

#### 6.4. Reference to other sections

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Ground and bond container and receiving equipment.
- Use explosion-proof electrical/lighting/ventilating equipment.
- Use non-sparking tools.
- Take action to prevent static discharges.
- Avoid contact during pregnancy and while nursing.
- Smoking, drinking and consumption of food is not allowed in the work area.
- See section 8 "Exposure controls/personal protection" for information on personal protection.

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

- Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
- Take action to prevent static discharges.
- Must be stored in a cool and well-ventilated area, away from possible sources of ignition.
- Joint storage is permitted for products in storage classes: 2B, 3, 6.1A, 6.1C, 8A, 8B, 10, 12, 13
- Restrictions apply to joint storage of products in storage classes: 5.1B, 6.1D, 11
- Joint storage is NOT allowed for products in all other storage classes.

#### Recommended storage material

- Keep only in original packaging.

#### Storage class

- Storage class 3 (Flammable liquids).
- TRGS 510 - Storage of hazardous substances in non-stationary containers.

#### Storage conditions

- Dry, cool and well ventilated

#### Incompatible materials

- Strong oxidizing agents

### 7.3. Specific end use(s)

- This product should only be used for applications quoted in section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

- ethanol;ethyl alcohol
- Long term exposure limit (8 hours) (ppm): 200
- Long term exposure limit (8 hours) (mg/m<sup>3</sup>): 380
- Short term exposure limit (15 minutes) (ppm): 800
- Short term exposure limit (15 minutes) (mg/m<sup>3</sup>): 1520
- Category for short-term values: II
- Annotations:
- DFG = Senate Commission for the examination of Harmful working materials of the DFG (MAK Commission)
- Y = No risk of fetal damage is to be feared if the occupational exposure limit (OEL) value and the biological limit value (BLV) are adhered to.

Technical requirements for hazardous substances, workplace exposure limits, TRGS 900 (Jan. 2006)

#### DNEL

ethanol;ethyl alcohol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - Workers	Dermal	343 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	380 mg/m <sup>3</sup>
Short term – Local effects - Workers	Inhalation	1900 mg/m <sup>3</sup>

#### PNEC

ethanol;ethyl alcohol

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		960 µg/L
Freshwater sediment		3.6 mg/kg
Intermittent release (freshwater)		2.75 mg/L
Marine water		790 µg/L
Marine water sediment		2.9 mg/kg
Predators		380-720 mg/kg
Sewage treatment plant		580 mg/L
Soil		630 µg/kg

## 8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

### General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

### Exposure scenarios

There are no exposure scenarios implemented for this product.

### Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

### Appropriate technical measures

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

Apply standard precautions during use of the product. Avoid inhalation of vapours.

### Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Pay special attention to hands, forearms and face.

### Measures to avoid environmental exposure


No specific requirements.

## Individual protection measures, such as personal protective equipment


### Generally

Use only CE marked protective equipment.


### Respiratory Equipment

Type	Class	Colour	Standards	
AX		Brown	EN14387	

### Skin protection

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

### Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Gloves	-	-	EN374	

### Eye protection

Type	Standards
Safety glasses	EN166



## SECTION 9: Physical and chemical properties

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

#### Physical state

Liquid

#### Colour

Colourless

#### Odour / Odour threshold

Alcohol odor

#### pH

No data available

#### Density (g/cm<sup>3</sup>)

No data available

#### Relative density

No data available

#### Kinematic viscosity

No data available

#### Particle characteristics

No data available

#### Phase changes

##### Melting point/Freezing point (°C)

No data available

##### Softening point/range (°C)

Does not apply to liquids.

##### Boiling point (°C)

80

##### Vapour pressure

No data available

##### Relative vapour density

No data available

##### Decomposition temperature (°C)

No data available

#### Data on fire and explosion hazards

##### Flash point (°C)

23

##### Flammability (°C)

The material is ignitable.

##### Auto-ignition temperature (°C)

No data available

##### Lower and upper explosion limit (% v/v)

No data available

#### Solubility

##### Solubility in water

No data available

##### n-octanol/water coefficient (LogKow)

No data available

##### Solubility in fat (g/L)

No data available

## 9.2. Other information

Evaporation rate (n-butylacetate = 100)

No data available

Other physical and chemical parameters

No data available.

Oxidizing properties

No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Mechanical influences (e.g. Shock, pressure, impact, friction). Fire, sparks or other ignition sources.

### 10.5. Incompatible materials

Strong oxidizing agents

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

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

#### Acute toxicity

Product/substance	ethanol;ethyl alcohol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50 (24h)
Result:	>20000 mg/kg

Product/substance	ethanol;ethyl alcohol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50 (4 hours)
Result:	124.7 mg/L

Product/substance	ethanol;ethyl alcohol
Species:	Rat
Route of exposure:	Oral
Test:	LD50 (24h)
Result:	6200 mg/kg

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

#### Skin corrosion/irritation

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

#### Serious eye damage/irritation

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

#### Respiratory sensitisation

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

#### 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.

### Symptoms related to the physical, chemical and toxicological characteristics

None known.

### 11.2. Information on other hazards

#### Endocrine disrupting properties

This mixture/product does not contain any substances known to have hormone-disrupting properties in relation to health.

#### Other information

None known.

## SECTION 12: Ecological information

### 12.1. Toxicity

Product/substance	ethanol;ethyl alcohol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	13480 mg/L

Product/substance	ethanol;ethyl alcohol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	13480 mg/L

Product/substance	ethanol;ethyl alcohol
Species:	Daphnia
Duration:	48 hours
Test:	LC50
Result:	5400 mg/L

Product/substance	ethanol;ethyl alcohol
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	9268 mg/L

Product/substance	ethanol;ethyl alcohol
Duration:	48 hours
Test:	LC50
Result:	8140 mg/L

Product/substance	ethanol;ethyl alcohol
Species:	Daphnia
Duration:	24 hours
Test:	EC50
Result:	10800 mg/L

Product/substance ethanol;ethyl alcohol  
 Species: Algae  
 Duration: 72 hours  
 Test: IC50  
 Result: >10.9 mg/L

Product/substance ethanol;ethyl alcohol  
 Duration: 96 hours  
 Test: LC50  
 Result: 11000 mg/L

Product/substance ethanol;ethyl alcohol  
 Species: Fish  
 Duration: 24 hours  
 Test: LC50  
 Result: 11200 mg/L

Product/substance ethanol;ethyl alcohol  
 Duration: 16 hours  
 Test: IC50  
 Result: 6500 mg/L

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

#### 12.2. Persistence and degradability

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

#### 12.3. Bioaccumulative potential

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

#### 12.4. Mobility in soil

No data available.

#### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

#### 12.6. Endocrine disrupting properties

This mixture/product does not contain any substances considered to have endocrine-disrupting properties in relation to the environment.

#### 12.7. Other adverse effects

None known.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 3 - Flammable

Dispose of contents/container to an approved waste disposal plant.

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

#### EWC code




Not applicable.

#### Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

### SECTION 14: Transport information

14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
ADR/A DN/RID	UN1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3	III	No	Limited quantities: 5 L Tunnel restriction code: (D/E)

14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
		Classification code: F1 			See below for additional information.
IMDG	UN1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3 Classification code: F1 	III	No	Limited quantities: 5 L EmS: F-E S-D See below for additional information.
IATA	UN1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Transport hazard class: 3 Label: 3 Classification code: F1 	III	No	See below for additional information.

\* Packing group

\*\* Environmental hazards

#### Additional information

This product is within scope of the regulations of transport of dangerous goods.

ADR/ADN/RID / See Table A, section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

#### 14.6. Special precautions for user

Not applicable.

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

No data available.

## SECTION 15: Regulatory information

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

#### Restrictions for application

Restricted to professional users.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

#### Demands for specific education

No specific requirements.

#### SEVESO - Categories / dangerous substances

P5c - FLAMMABLE LIQUIDS, Qualifying quantity (lower-tier): 5.000 tonnes / (upper-tier): 50.000 tonnes

#### REACH, Annex XVII

ethanol;ethyl alcohol is subject to REACH restrictions (entry 40).

#### WGK classification

WGK class: WGK 3

#### Additional information

Not applicable.

#### Sources

Law on the protection of mothers at work, in training and in studies (Mutterschutzgesetz - MuSchG) 23.05.2017 (BGBl. I S. 1228).

Twelfth ordinance for the implementation of the Federal Immission Control Act (Major Accidents Ordinance - 12th BImSchV).

Commission Regulation (EU) No 1357/2014 of 18 December 2014 on waste.

Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

#### 15.2. Chemical safety assessment

No

### SECTION 16: Other information

#### Full text of H-phrases as mentioned in section 3

H225, Highly flammable liquid and vapour.

#### Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne (European conformity)

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EC = Effective concentration

ED = Effective dose

EINECS = European Inventory of Existing Commercial chemical Substances

EL = Effective Loading

ErC = Concentration associated with x% growth rate response

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EuPCS = European Product Categorisation System

EWC = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

GWP = Global warming potential

HP = Hazardous Property code

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IC = X maximum inhibitory concentration

IMDG = International Maritime Dangerous Goods

LC = Lethal concentration

LCLo = Value is the lowest concentration of a material in air reported to have caused the death of animals or humans

LD = Lethal dose

LOAEC = Lowest Observed Adverse Effect Concentration

LOAEL = Lowest Observed Adverse Effect Level

LOEC = Lowest Observed Effect Concentration

LogKow = logarithm of the n-octanol/water coefficient

LL = Lethal Loading

M = For multiplication factor

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NOAEC = No Observed Adverse Effect Concentration

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration  
NOELR = No Observable Effect Loading Rate  
OECD = Organisation for Economic Co-operation and Development  
PBT = Persistent, Bioaccumulative and Toxic  
PNEC = Predicted No Effect Concentration  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SCL = A specific concentration limit  
SVHC = Substances of Very High Concern  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

#### Additional information

The classification of the mixture in regard to physical hazards has been based on experimental data.

#### The safety data sheet is validated by

Stephan Björk

#### Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: DE-en