

Mücken-Frey

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

1.1 Product identifier

Product name: Mücken-Frey

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

Relevant identified uses:

Repellent

Uses advised against:

No information available

1.3 Details of the supplier of the safety data sheet

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1.4 Emergency telephone number

public emergency number company phone number: +49 (0)8191 947 20 10 during office hours Mo-Thu 8.00 – 17.00 h

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008

Flam. Liq. 3	H226: Flammable liquid and vapour
Eye Irrit. 2	H319: Causes serious eye irritation

2.2 Label elements

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

Hazard pictograms



Signal word **WARNING**

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Hazard statements

- H226 Flammable liquid and vapour
- H319 Causes serious eye irritation

Precautionary statements

- P101 If medical advice is needed, have product container or label at hand
- P102 Keep out of reach of children
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P264 Wash hands thoroughly after handling
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations

2.3 Other hazards

Use biocides safely. Always read the label and product information before use.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

CAS No. EC No. REACH No.	Chemical name Classification according to Regulation (EC) No. 1272/2008	Quantity
64-17-5	Ethyl alcohol	25 – < 50 %
200-578-6	Flam. Liq. 2, H225; Eye Irrit. 2, H319	
01-2119457610-43		
52304-36-6	Ethyl N-acetyl-N-butyl- β -alaninate	20 – < 25 %
257-835-0	Eye Irrit. 2, H319	

Full text of H and EUH phrases: see section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Take off immediately all contaminated clothing. Call a doctor if you feel unwell.

After inhalation:

Provide fresh air. In case of symptoms call a doctor.

After contact with skin:

After contact with skin, wash immediately with plenty of water and soap and rinse afterwards.

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After contact with eyes:

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.

After ingestion:

If swallowed immediately drink water (max. 2 glasses) and consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

First aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water, foam, Carbon dioxide (CO₂), Extinguishing powder.

Unsuitable extinguishing media:

Full water jet.

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: Carbon monoxide, Carbon dioxide, Nitrogen oxides (NO_x).
May form flammable/explosive vapour-air mixtures. Vapours are heavier than air and spread along floors.

5.3 Advice for firefighters

Special protective equipment for firefighters:

In case of fire: Wear self-contained breathing apparatus.

Additional information:

Suppress gases/vapours/mists with water spray jet.
Do not allow run-off from fire-fighting to enter drains.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Do not breathe vapour spray. Avoid contact with eyes, skin and clothing.
Keep away from sources of ignition – no smoking.

6.2 Environmental precautions

Do not allow to enter drains. Risk of explosion.

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6.3 Methods and material for containment and cleaning up

Provide adequate ventilation. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Place in appropriate containers for disposal.

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

Advice on safe handling:

Observe label precautions. Avoid contact with eyes.

Advice on protection against fire and explosion:

Keep away from open flames, hot surfaces and sources of ignition – no smoking. Take precautionary measures against static discharge.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep container tightly closed. Store in a dry, well-ventilated place. Keep away from sources of ignition and heat.

Advice on storage compatibility:

Keep away from food and animal feeding stuffs.

Storage class (VCI): 3 – Flammable liquids

Further information on storage conditions:

see product label

7.3 Specific end use(s)

Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Exposure limits (EH40):

CAS No.	Substance	ppm	mg/m ³	Category	Origin
64-17-5	Ethanol	1000	1920	TWA (8h)	WEL

DNEL-/DMEL values:

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DNEL type	Exposure route	Effect	Value
Ethyl alcohol			
Worker DNEL, acute	Inhalation	Local	1900 mg/m ³
Worker DNEL, long-term	Dermal	Systemic	343 mg/kg bw/day
Worker DNEL, long-term	Inhalation	Systemic	950 mg/m ³
Consumer DNEL, acute	Inhalation	Local	950 mg/m ³
Consumer DNEL, long-term	Dermal	Systemic	206 mg/kg bw/day
Consumer DNEL, long-term	Inhalation	Systemic	114 mg/m ³
Consumer DNEL, long-term	Oral	Systemic	87 mg/kg bw/day

PNEC values:

Environmental compartment	Value
Ethyl alcohol	
Fresh water	0,96 mg/l
Marine water	0,79 mg/l
Aquatic intermittent release	2,75 mg/l
Fresh water sediment	3,6 mg/kg
Micro-organisms in sewage treatment plant	580 mg/l
Soil	0,63 mg/kg

8.2 Exposure controls

Appropriate engineering controls:

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Protective and hygiene measures:

Common precautionary measures have to be observed when handling chemical substances. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff. Keep away from food and animal feeding stuffs.

Eye/face protection: Safety goggles

Hand protection: Tested protective gloves must be worn.

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.

Skin protection: Flame retardant antistatic protective clothing.

Respiratory protection: necessary at: formation of vapours/spray

Recommended filter type: filter ABEK

Environmental exposure controls:

See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

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Physical state:	Liquid
Colour:	clear
Odour:	Weak, ethanolic
Odour threshold:	Not determined
pH value (20 °C):	5
Melting point:	Not determined
Boiling point:	Not determined
Flash point:	28,7 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Explosive properties:	In use, may form flammable/explosive vapour-air mixture
Explosion limits:	Not determined
Vapour pressure:	Not determined
Vapour density:	Not determined
Density (20 °C):	0,951 g/cm ³
Water solubility / miscibility:	Miscible
Partition coefficient (n-Octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity, dynamic (20 °C):	6.80 mPas
Oxidizing properties:	No

9.2 Other information

None.

SECTION 10: Stability and reactivity

10.1 Reactivity

Vapour/air-mixtures are explosive at intense warming.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Violent reactions possible with: Oxidizing agents, strong.

10.4 Conditions to avoid

Heating.

10.5 Incompatible materials

No further information available.

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10.6 Hazardous decompositions products

In case of fire may be liberated: Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

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

Exposure routes	Method	Value	Exposition time	Species	Source
Ethyl alcohol					
Oral	LD50	10470 mg/kg		Rat	OECD 401
Dermal	LD50	> 20000 mg/kg		Rabbit	
Inhalation	LC50	124,7 mg/l	4 h	Rat	OECD 403
Ethyl N-acetyl-N-butyl-β-alaninate					
Oral	LD50	14000 mg/kg		Rat	
Dermal	LD50	> 10000 mg/kg		Rat	
Inhalative	LC50	> 5,1 mg/l	4 h	Rat	

Irritation and corrosivity:

Causes serious eye irritation.

Sensitising effects:

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

STOT – single exposure:

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

Severe effects after repeated or prolonged exposure:

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

Carcinogenic/mutagenic/toxic effects for reproduction:

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

Aspiration hazard:

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

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.

Aquatic toxicity	Method	Dose	[h] [d]	Species	Source

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Ethyl alcohol					
Acute fish toxicity	LC50	> 13480 mg/l	96 h	Pimephales promelas	
Acute algae toxicity	ErC50	9310 mg/l		Chlorella pyrenoidosa	IUCLID
Acute crustacea toxicity	EC50	9268 – 14221 mg/l	48 h	Daphnia magna	IUCLID
Acute bacteria toxicity	EC50	23000 mg/l	15 min	Photobacterium phosphoreum	
Ethyl N-acetyl-N-butyl-β-alaninate					
Acute fish toxicity	LC50	> 100 mg/l	96 h	Danio rerio	
Acute algae toxicity	ErC50	> 100 mg/l	72 h	Desmodesmus subspicatus	
Acute crustacea toxicity	EC50	> 100 mg/l	48 h	Daphnia magna	
Acute bacteria toxicity	EC50	> 1000 mg/l	3 h	Activated slugde	

12.2 Persistence and degradability

There are no data available on the mixture itself.

Method	Evaluation	Value	[d]	Source
Ethyl alcohol				
OECD 301E	Readily biodegradable	94 %		
Ethyl N-acetyl-N-butyl-β-alaninate				
OECD 303A	Readily eliminated from water	ca. 99 %	43	
OECD 301D	Not readily biodegradable	11 %	28	

12.3 Bioaccumulative potential

There are no data available on the mixture itself.

12.4 Mobility in soil

There are no data available on the mixture itself.

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Advice on disposal:

Do not allow to enter drains. Dispose of waste according to applicable legislation.

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Waste disposal number of waste from residues/unused product:

07 04 99 Wastes from organic chemical processes; wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocide; wastes not otherwise specified.

Waste disposal number of contaminated packaging:


15 01 10 Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances – classified as hazardous waste

Contaminated packaging:


Dispose of waste according to applicable legislation.

SECTION 14: Transport information

Land transport (ADR/RID)


14.1 UN number:	UN 1170
14.2 UN proper shipping name:	ETHYL ALCOHOL, SOLUTION
14.3 Transport hazard class(es):	3
14.4 Packing group:	III
Hazard label:	3 
Classification code:	F1
Limited quantity (LQ):	5 L
Excepted quantity:	E1
Transport category:	3
Tunnel restriction code:	D/E

Inland waterways transport (ADN)


14.1 UN number:	UN 1170
14.2 UN proper shipping name:	ETHYL ALCOHOL, SOLUTION
14.3 Transport hazard class(es):	3
14.4 Packing group:	III
Hazard label:	3 
Classification code:	F1
Limited quantity (LQ):	5 L
Excepted quantity:	E1

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Marine transport (IMDG)

14.1 UN number:	UN 1170
14.2 UN proper shipping name:	ETHYL ALCOHOL, SOLUTION
14.3 Transport hazard class(es):	3
14.4 Packing group:	III
Hazard label:	3 
Limited quantity (LQ):	5 L
EmS:	F-E, S-D

Air transport (ICAO)

14.1 UN number:	UN 1170
14.2 UN proper shipping name:	ETHYL ALCOHOL, SOLUTION
14.3 Transport hazard class(es):	3
14.4 Packing group:	III
Hazard label:	3 
Limited quantity (LQ) Passenger:	10 L

14.5 Environmental hazards

Environmentally hazardous: no

14.6 Special precautions for user

See sections 6 – 8.

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

National regulatory information:

Employment restrictions: Observe employment restrictions for young people

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Water contaminating class (D): 1 – slightly water contaminating

In addition the special regulations on labelling in accordance with Regulation (EC) No. 528/2012 have to be observed.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16: Other information

Relevant H- and EUH-phrases (number and full text):

H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H319	Causes serious eye irritation

Further information:

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.

The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.