

SAFETY DATA SHEET

FBM 7

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

1.1. Product identifier

Trade name

FBM 7

Product no.

1823

Unique formula identifier (UFI)

D6D0-7074-100J-JY8T

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

Relevant identified uses of the substance or mixture

Paint Remover

Restricted to professional users.

Uses advised against

None known.

1.3. Details of the supplier of the safety data sheet

Company and address

Trion Tensid AB

Svederusgatan 1-3

SE-75450 Uppsala

Sweden

+46 18 15 61 90

www.trion.se

Contact person

William Stomilovic

E-mail

info@trion.se

Revision

15/11/2023

SDS Version

6.0

Date of previous version

15/11/2023 (5.0)

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. ▼ Classification of the substance or mixture

Acute Tox. 4; H302, Harmful if swallowed.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Skin Irrit. 2; H315, Causes skin irritation.
Eye Irrit. 2; H319, Causes serious eye irritation.
Acute Tox. 4; H332, Harmful if inhaled.

2.2. Label elements

Hazard pictogram(s)



Signal word

Warning

▼ Hazard statement(s)

Harmful if swallowed or if inhaled. (H302+H332)
Causes skin irritation. (H315)
Causes serious eye irritation. (H319)

Precautionary statement(s)

General

-

▼ Prevention

Avoid breathing mist/vapour. (P261)
Wash hands thoroughly after handling. (P264)
Use only outdoors or in a well-ventilated area. (P271)

▼ Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing. (P304+P340)
Call a POISON CENTER/doctor if you feel unwell. (P312)

Storage

-

Disposal

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

Hazardous substances

1-butylpyrrolidin-2-one
2-butoxyethanol
potassium hydroxide
2-aminoethanol

Additional labelling

EUH066, Repeated exposure may cause skin dryness or cracking.
UFI: D6D0-7074-100J-JY8T

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) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Product/substance	Identifiers	% w/w	Classification	Note
1-butylpyrrolidin-2-one	CAS No.: 3470-98-2 EC No.: 222-437-8 UK-REACH: Index No.:	30-50%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319	
dimethyl sulfoxide	CAS No.: 67-68-5 EC No.: 200-664-3 UK-REACH: Index No.:	10-30%		
2-butoxyethanol	CAS No.: 111-76-2 EC No.: 203-905-0 UK-REACH: Index No.: 603-014-00-0	10-20%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 3, H331	[1]
2-(2-ethoxyethoxy)ethanol	CAS No.: 111-90-0 EC No.: 203-919-7 UK-REACH: Index No.:	1-10%		
potassium hydroxide	CAS No.: 1310-58-3 EC No.: 215-181-3 UK-REACH: Index No.: 019-002-00-8	<2%	Acute Tox. 4, H302 Skin Corr. 1A, H314 Skin Corr. 1B, H314 (SCL: 2.00 %) Skin Irrit. 2, H315 (SCL: 0.50 %) Eye Irrit. 2, H319 (SCL: 0.50 %)	
2-aminoethanol	CAS No.: 141-43-5 EC No.: 205-483-3 UK-REACH: Index No.: 603-030-00-8	<0,1%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Acute Tox. 4, H332 STOT SE 3, H336 (SCL: 5.00 %)	[1]

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

Other information

[1] European occupational exposure limit.

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 injured person into fresh air. Make sure the injured person is continuously monitored. Prevent shock by keeping the injured person warm and calm. If breathing ceases, give mouth-to-mouth resuscitation. If unconscious, roll the injured person into recovery position. Call an ambulance.

Skin contact

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting unless this is recommended by a doctor. Hold head facing down to prevent vomit from returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

If eye irritation persists: Get medical advice/attention.

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.

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

Sulphur oxides

Nitrogen oxides (NO_x)

Carbon oxides (CO / CO₂)

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. ▼ Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

Avoid inhalation of vapours from spilled material.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

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 and collect using granular absorbent or similar materials, and dispose of it in accordance with the regulations on dangerous waste.

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

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.

Recommended storage material

Always store in containers of the same material as the original container.

Storage temperature

4 - 25 Celcius

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing 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

2-butoxyethanol

Long term exposure limit (8 hours) (ppm): 25

Long term exposure limit (8 hours) (mg/m³): 123

Short term exposure limit (15 minutes) (ppm): 50

Short term exposure limit (15 minutes) (mg/m³): 246

Annotations:

BMVG = Biological Monitoring Guidance Value exists

Sk = Can be absorbed through the skin and lead to systemic toxicity.

potassium hydroxide

Short term exposure limit (15 minutes) (mg/m³): 2

2-aminoethanol

Long term exposure limit (8 hours) (ppm): 1

Long term exposure limit (8 hours) (mg/m³): 2,5

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Short term exposure limit (15 minutes) (ppm): 3
 Short term exposure limit (15 minutes) (mg/m³): 7,6

Annotations:

Sk = Can be absorbed through the skin and lead to systemic toxicity.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002.
 EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

1-butylpyrrolidin-2-one

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	5 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	10 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	17,4 mg/m ³
Long term – Systemic effects - Workers	Inhalation	70,5 mg/m ³
Long term – Systemic effects - General population	Oral	2,5 mg/kg bw/day
Short term – Systemic effects - General population	Oral	2,5 mg/kg bw/day

2-(2-ethoxyethoxy)ethanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	25 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	83 mg/kg bw/day
Long term – Local effects - General population	Inhalation	18 mg/m ³
Long term – Local effects - Workers	Inhalation	30 mg/m ³
Long term – Systemic effects - General population	Inhalation	37 mg/m ³
Long term – Systemic effects - Workers	Inhalation	61 mg/m ³
Long term – Systemic effects - General population	Oral	50 mg/kg bw/day

2-aminoethanol

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	0,24 mg/sqm
Long term – Systemic effects - Workers	Dermal	1 mg/kg/day
Long term – Local effects - General population	Inhalation	2 mg/kbm
Long term – Local effects - Workers	Inhalation	3,3 mg/kbm
Long term – Systemic effects - General population	Inhalation	2 mg/kbm
Long term – Systemic effects - Workers	Inhalation	3,3 mg/kbm
Long term – Systemic effects - General population	Oral	3,75 mg/kg

2-butoxyethanol

Duration:	Route of exposure:	DNEL:
Short term – Systemic effects - General population		89 mg/kg bw/day
Long term – Systemic effects - General population	Dermal	75 mg/kg bw/day

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Long term – Systemic effects - Workers	Dermal	125 mg/kg bw/day
Short term – Systemic effects - Workers	Dermal	89 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	59 mg/kbm
Long term – Systemic effects - General population	Inhalation	59 mg/m ³
Long term – Systemic effects - Workers	Inhalation	98 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	98 mg/m ³
Short term – Local effects - General population	Inhalation	147 mg/kbm
Short term – Local effects - General population	Inhalation	147 mg/m ³
Short term – Local effects - Workers	Inhalation	246 mg/kbm
Short term – Local effects - Workers	Inhalation	246 mg/m ³
Short term – Systemic effects - General population	Inhalation	426 mg/kbm
Short term – Systemic effects - General population	Inhalation	426 mg/m ³
Short term – Systemic effects - Workers	Inhalation	1091 mg/kbm
Short term – Systemic effects - Workers	Inhalation	1091 mg/m ³
Long term – Systemic effects - General population	Oral	6,3 mg/kg bw/day
Long term – Systemic effects - General population	Oral	6.3 mg/kg bw/day
Short term – Systemic effects - General population	Oral	26,7 mg/kg bw/day
Short term – Systemic effects - General population	Oral	26.7 mg/kg bw/day

hexyl D-glucoside

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	357000 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	595000 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	124 mg/m ³
Long term – Systemic effects - Workers	Inhalation	420 mg/m ³
Long term – Systemic effects - General population	Oral	35,7 mg/kg bw/day

PNEC

1-butylpyrrolidin-2-one

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater	Single	0,8 mg/L
Freshwater sediment	Single	6,336 mg/kg
Marine water	Single	0,08 mg/L
Marine water sediment	Single	06336 mg/kg
Sewage treatment plant	Continuous	30,62 mg/L
Soil	Single	0,7955 mg/kg
Water	Single	1 mg/L

2-(2-ethoxyethoxy)ethanol

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater	Single	1,98 mg/L
Freshwater sediment	Single	0,732 mg/kg
Marine water	Single	0,198 mg/L
Marine water sediment	Single	7,32 mg/kg
Sewage treatment plant	Single	500 mg/L
Soil	Single	0,34 mg/kg
2-aminoethanol		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		0,085 mg/L
Freshwater sediment		0,434 mg/kg
Intermittent release		0,028 mg/L
Marine water		0,0085 mg/L
Marine water sediment		0,0434 mg/kg
Sewage treatment plant		100 mg/L
Soil		0,0367 mg/kg
2-butoxyethanol		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater	Single	8,8 mg/L
Freshwater		8.8 mg/L
Freshwater sediment	Single	34,6 mg/kg
Freshwater sediment		34.6 mg/kg
Intermittent release (freshwater)		26.4 mg/L
Marine water	Single	0,88 mg/L
Marine water		880 µg/L
Marine water sediment	Single	3,46 mg/kg
Marine water sediment		3.46 mg/kg
Predators		20 mg/kg
Sewage treatment plant	Single	463 mg/L
Sewage treatment plant		463 mg/L
Soil	Single	2,33 mg/kg
Soil		2.33 mg/kg
Water	Continuous	9,1 mg/L
hexyl D-glucoside		
Route of exposure:	Duration of Exposure:	PNEC:
Freshwater	Single	0,176 mg/L
Freshwater sediment	Single	0,722 mg/kg

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Marine water	Single	0,018 mg/L
Marine water sediment	Single	0,072 mg/kg
Sewage treatment plant	Single	100 mg/L
Soil	Single	0,654 mg/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

Take off contaminated clothing and wash it before reuse.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment

Generally


Use only UKCA marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
Respiratory protection is not needed in the event of adequate ventilation	-	-	-


Skin protection

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



Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	0,4	>480	EN374-2



Eye protection

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Type	Standards
------	-----------

Wear safety glasses with side shields.	EN166
--	-------



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Yellowish

Odour / Odour threshold

Solvent

pH

Testing not relevant or not possible due to the nature of the product.

Density (g/cm³)

1.02

Kinematic viscosity

Testing not relevant or not possible due to the nature of the product.

Particle characteristics

Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)

Testing not relevant or not possible due to the nature of the product.

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

180-200

Vapour pressure

Testing not relevant or not possible due to the nature of the product.

Relative vapour density

Testing not relevant or not possible due to the nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

Data on fire and explosion hazards

Flash point (°C)

94

Flammability (°C)

Testing not relevant or not possible due to the nature of the product.

Auto-ignition temperature (°C)

Testing not relevant or not possible due to the nature of the product.

Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to the nature of the product.

Solubility

Solubility in water

Completely soluble

n-octanol/water coefficient

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Testing not relevant or not possible due to the nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to the nature of the product.

9.2. Other information

Other physical and chemical parameters

No data available.

Oxidizing properties

Testing not relevant or not possible due to the nature of the product.

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

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

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

▼ Acute toxicity

Product/substance	1-butylpyrrolidin-2-one
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	300-2000 mg/kg ·

Product/substance	1-butylpyrrolidin-2-one
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	>2000 mg/kg ·

Product/substance	2-butoxyethanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	2000 mg/kg ·

Product/substance	2-butoxyethanol
Species:	Rat
Route of exposure:	Inhalation
Test:	LC50

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Result:	2,2 mg/l (4 h) ·
Product/substance	2-butoxyethanol
Species:	Rat
Route of exposure:	Dermal
Test:	LD50
Result:	2270 mg/kg ·
Product/substance	2-butoxyethanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	220 mg/kg ·
Product/substance	2-(2-ethoxyethoxy)ethanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	6031 mg/kg bw ·
Product/substance	2-(2-ethoxyethoxy)ethanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	9143 mg/kg bw ·
Product/substance	2-(2-ethoxyethoxy)ethanol
Species:	Rat
Route of exposure:	Inhalation
Test:	LD lo
Result:	0,025 mg/L ·
Product/substance	potassium hydroxide
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	273 mg/kg ·
Product/substance	hexyl D-glucoside
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	>2000 mg/kg
Product/substance	hexyl D-glucoside
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	>2000 mg/kg
Product/substance	Alcohols, C9-C11, Ethoxylated
Species:	Rat

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Route of exposure:	Oral
Test:	LD50
Result:	>2000 mg/kg

Product/substance	2-aminoethanol
Species:	Rat
Route of exposure:	Oral
Test:	LD50
Result:	1720 mg/kg

Product/substance	2-aminoethanol
Species:	Rabbit
Route of exposure:	Dermal
Test:	LD50
Result:	1025 mg/kg

Harmful if swallowed.

Harmful if inhaled.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Product/substance	hexyl D-glucoside
Test method:	OECD 406
Species:	Guinea pig
Result:	No adverse effect observed (not sensitising)

Skin sensitisation

Product/substance	Alcohols, C9-C11, Ethoxylated
Test method:	OECD 406
Species:	Guinea pig
Result:	No adverse effect observed (not sensitising)

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.

11.2. Information on other hazards

Long term effects

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs.

Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system.

Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin,

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

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

Other information

2-butoxyethanol has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Product/substance	1-butylpyrrolidin-2-one
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	>100 mg/L ·

Product/substance	1-butylpyrrolidin-2-one
Species:	Algae
Duration:	72 hours
Test:	EC50
Result:	130 mg/L ·

Product/substance	1-butylpyrrolidin-2-one
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	>100 mg/L ·

Product/substance	2-butoxyethanol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	1474 mg/l ·

Product/substance	2-butoxyethanol
Species:	Algae
Duration:	72 hours
Test:	EC50
Result:	1840 mg/l ·

Product/substance	2-butoxyethanol
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	1550 mg/l ·

Product/substance	2-(2-ethoxyethoxy)ethanol
Species:	Fish
Duration:	96 hours
Test:	LC50

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Result:	6010 mg/L ·
Product/substance	potassium hydroxide
Species:	Fish
Duration:	24 hours
Test:	LC50
Result:	80 mg/L ·
Product/substance	hexyl D-glucoside
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	>100 mg/L ·
Product/substance	hexyl D-glucoside
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	>100 mg/L ·
Product/substance	hexyl D-glucoside
Species:	Algae
Duration:	72 hours
Test:	EC50
Result:	>100 mg/L ·
Product/substance	hexyl D-glucoside
Species:	Algae
Duration:	72 hours
Test:	NOEC
Result:	>100 mg/L
Product/substance	hexyl D-glucoside
Species:	Daphnia
Duration:	21 days
Test:	NOEC
Result:	>1-10 mg/L
Product/substance	Alcohols, C9-C11, Ethoxylated
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	>1 mg/L
Product/substance	Alcohols, C9-C11, Ethoxylated
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	>1 mg/L
Product/substance	Alcohols, C9-C11, Ethoxylated
Species:	Algae

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Duration:	72 hours
Test:	EC50
Result:	>1 mg/L

Product/substance	2-aminoethanol
Species:	Fish
Duration:	96 hours
Test:	LC50
Result:	125 mg/L

Product/substance	2-aminoethanol
Species:	Daphnia
Duration:	48 hours
Test:	EC50
Result:	65 mg/L

Product/substance	2-aminoethanol
Species:	Algae
Duration:	72 hours
Test:	EC50
Result:	2,5 mg/L

12.2. Persistence and degradability

Product/substance	1-butylpyrrolidin-2-one
Biodegradable:	Yes

Product/substance	2-butoxyethanol
Biodegradable:	Yes
Test method:	OECD 301 B
Result:	90%

Product/substance	2-(2-ethoxyethoxy)ethanol
Biodegradable:	Yes
Test method:	Oxygen consumption
Result:	79,4%

Product/substance	potassium hydroxide
Biodegradable:	Yes

Product/substance	hexyl D-glucoside
Biodegradable:	Yes
Test method:	OECD 301 D
Result:	>70%

Product/substance	Alcohols, C9-C11, Ethoxylated
Biodegradable:	Yes
Test method:	OECD 301 D

Product/substance	2-aminoethanol
Biodegradable:	Yes

12.3. Bioaccumulative potential

Product/substance	1-butylpyrrolidin-2-one
-------------------	-------------------------

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Potential bioaccumulation: No
LogPow: No data available.
BCF: No data available.

Product/substance 2-butoxyethanol
Potential bioaccumulation: No
LogPow: No data available.
BCF: No data available.

Product/substance 2-(2-ethoxyethoxy)ethanol
Potential bioaccumulation: No
LogPow: No data available.
BCF: No data available.

Product/substance potassium hydroxide
Potential bioaccumulation: No
LogPow: -1,3800
BCF: No data available.

Product/substance hexyl D-glucoside
Potential bioaccumulation: No
LogPow: No data available.
BCF: No data available.

Product/substance Alcohols, C9-C11, Ethoxylated
Potential bioaccumulation: No
LogPow: No data available.
BCF: No data available.

Product/substance 2-aminoethanol
Potential bioaccumulation: No
LogPow: -1,91
BCF: No data available.

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 4 - Irritant (skin irritation and eye damage)

HP 6 - Acute toxicity

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

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

20 01 13* Solvents

Contaminated packing

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	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

* Packing group

** Environmental hazards

Additional information

Not dangerous goods according to ADR, 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.

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

Not applicable.

Additional information

Not applicable.

Sources

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

,

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

H302, Harmful if swallowed.
H312, Harmful in contact with skin.
H314, Causes severe skin burns and eye damage.
H315, Causes skin irritation.
H319, Causes serious eye irritation.
H331, Toxic if inhaled.
H332, Harmful if inhaled.
H336, May cause drowsiness or dizziness.

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
EINECS = European Inventory of Existing Commercial chemical Substances
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
IARC = International Agency for Research on Cancer (IARC)
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
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 substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

▼ The safety data sheet is validated by

RO

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue 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: GB-en