

SAFETY DATA SHEET

KPS Dybderens Anilox



The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

Date issued 17.10.2018

Revision date 27.01.2023

1.1. Product identifier

Product name KPS Dybderens Anilox

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

Use of the substance / mixture Industrial applications.

1.3. Details of the supplier of the safety data sheet

Company name KPS Kemi
Office address Søndergade 42, Frederiks
Postcode 7470
City Karup
Country Danmark
Telephone number +45 2673 5180
Fax
Email kpskemi@post.tele.dk
Website www.kps-kemi.dk

1.4. Emergency telephone number

Emergency telephone Telephone number: 111
Description: NHS

Telephone number: 999
Description: Emergency

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute Tox. 4; H302
Skin Irrit. 2; H315
Eye Irrit. 2; H319

2.2. Label elements

Hazard pictograms (CLP)



Composition on the label 1-butylpyrrolidin-2-one 60 - 80 %, 2-(2-butoxyethoxy)ethanol 15 - 25 %, Kaliumhydroxid 1 - 2,5 %

Signal word Warning

Hazard statements H302 Harmful if swallowed. H315 Causes skin irritation. H319 Causes serious eye irritation.

Precautionary statements P264 Wash hands/exposed skin thoroughly after handling. P280 Wear protective gloves / protective clothing / eye protection / face protection. P337+P313 If eye irritation persists: Get medical advice / attention.

2.3. Other hazards

PBT / vPvB The mixture does not meet the criteria for PBT or vPvB.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
1-butylpyrrolidin-2-one	CAS No.: 3470-98-2 EC No.: 222-437-8 REACH Reg. No.: 01-2120062728-48-XXXX	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Route of exposure: Oral Value : 300 mg/kg bw	60 - 80 %	
2-(2-butoxyethoxy) ethanol	CAS No.: 112-34-5 EC No.: 203-961-6	Eye Irrit. 2; H319 Route of exposure: Oral	15 - 25 %	

REACH Reg. No.: Value : 2410 mg/kg bw
01-2119475104-44-XXXX

Kaliumhydroxid	CAS No.: 1310-58-3	Met. Corr. 1; H290	1 - 2,5 %
	EC No.: 215-181-3	Acute Tox. 4; H302	
	REACH Reg. No.:	Skin Corr. 1A; H314; SCL	
	01-2119487136-33-XXXX	C >= 5 %	
		Route of exposure: Oral	
		Value : 333 mg/kg	

SECTION 4: First aid measures

4.1. Description of first aid measures

General	When obtaining medical advice, show the safety data sheet or label.
Inhalation	Seek fresh air. Keep victim under observation. Seek medical advice in case of persistent discomfort.
Skin contact	Remove contaminated clothing. Wash the skin thoroughly with water and continue washing for a long time. Seek medical advice in case of persistent discomfort.
Eye contact	Flush with water (preferably using eye wash equipment) until irritation subsides. Seek medical advice if symptoms persist.
Ingestion	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Do not induce vomiting. Get medical advice/attention. If vomiting occurs, keep head low so that stomach contents do not enter lungs.

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

General symptoms and effects	Irritation effects: This product contains substances which cause irritation to skin and eyes, or when inhaled. Contact with locally irritative substances can cause the area of contact to be more prone to absorb damaging substances such as allergens.
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4.3. Indication of any immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Extinguish with powder, foam, carbon dioxide or water mist. Use water or water mist to cool non-ignited stock.
Improper extinguishing media	Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Hazardous fumes are formed in fire conditions.
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5.3. Advice for firefighters

Personal protective equipment Wear fresh air respiratory protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures Stay upwind/keep distance from source.

Personal protection measures Wear protective gloves / protective clothing / eye protection / face protection.

6.2. Environmental precautions

Environmental precautionary measures Notify proper authorities in case of contamination of soil or aquatic environment or discharge to drains.

6.3. Methods and material for containment and cleaning up

Containment Contain and absorb spill with sand or other absorbent, non-combustible material and transfer to suitable waste containers.

6.4. Reference to other sections

Other instructions See section 8 for type of protective equipment.
See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling All work must be carried out under well-ventilated conditions. Wash hands before breaks, before using restroom facilities, and at the end of work. Do not eat, drink or smoke during work. Running water and eye wash equipment should be available. See section 8 for information about precautions for use and personal protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Storage Keep in tightly closed original packaging.
Store in a well-ventilated place. Keep cool.

7.3. Specific end use(s)

Specific use(s) See application section 1

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
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1-butylpyrrolidin-2-one	CAS No.: 3470-98-2	
2-(2-butoxyethoxy) ethanol	CAS No.: 112-34-5	Country of origin: EU Limit value (8 h) : 10 ppm Limit value (8 h) : 67,5 mg/m ³
Kaliumhydroxid	CAS No.: 1310-58-3	Country of origin: Denmark Limit value (8 h) : 2 mg/m ³ Country of origin: Sweden Limit value (8 h) : 1 mg/m ³

DNEL / PNEC

Substance	1-butylpyrrolidin-2-one
DNEL	<p>Group: Consumer Route of exposure: Long-term inhalation (systemic) Value: 4,29 mg/m³ Reference: Data source: ECHA</p> <p>Group: Consumer Route of exposure: Long-term oral (systemic) Value: 4 mg/kg bw/day Reference: Data source: ECHA</p> <p>Group: Consumer Route of exposure: Acute oral (systemic) Value: 4 mg/kg bw/day Reference: Data source: ECHA</p> <p>Group: Professional Route of exposure: Long-term dermal (systemic) Value: 10 mg/kg bw/day Reference: Data source: ECHA</p> <p>Group: Professional Route of exposure: Long-term inhalation (systemic) Value: 24,1 mg/m³ Reference: Data source: ECHA</p> <p>Group: Consumer Route of exposure: Long-term dermal (systemic) Value: 5 mg/kg bw/day Reference: Data source: ECHA</p>
PNEC	<p>Route of exposure: Soil Value: 1,68 mg/kg dw Reference: Data source: ECHA</p> <p>Route of exposure: Saltwater sediments Value: 2,0 mg/kg dw Reference: Data source: ECHA</p>

	<p>Route of exposure: Freshwater sediments Value: 20,2 mg/kg dw Reference: Data source: ECHA</p> <p>Route of exposure: Sewage treatment plant STP Value: 30,62 mg/l Reference: Data source: ECHA</p> <p>Route of exposure: Saltwater Value: 0,4 mg/l Reference: Data source: ECHA</p> <p>Route of exposure: Freshwater Value: 4 mg/l Reference: Data source: ECHA</p>
Substance	2-(2-butoxyethoxy)ethanol
DNEL	<p>Group: Professional Route of exposure: Long-term inhalation (local) Value: 67,5 mg/m³ Reference: Data source: ECHA</p> <p>Group: Professional Route of exposure: Acute inhalation (local) Value: 101,2 mg/m³ Reference: Data source: ECHA</p> <p>Group: Consumer Route of exposure: Long-term oral (systemic) Value: 6,25 mg/kg bw/day Reference: ECHA</p>
PNEC	<p>Route of exposure: Soil Value: 0,32 mg/kg dw Reference: Data source: ECHA</p> <p>Route of exposure: Saltwater Value: 0,11 mg/l Reference: Data source: ECHA</p> <p>Route of exposure: Freshwater sediments Value: 4,4 mg/kg dw Reference: Data source: ECHA</p> <p>Route of exposure: Saltwater sediments Value: 0,44 mg/kg dw Reference: Data source: ECHA</p> <p>Route of exposure: Freshwater Value: 1,1 mg/l Reference: Data source: ECHA</p>
Substance	Kaliumhydroxid
DNEL	<p>Group: Professional Route of exposure: Long-term inhalation (local) Value: 1 mg/m³</p>

Reference: ECHA

Group: Consumer

Route of exposure: Long-term inhalation (local)

Value: 1 mg/m³

Reference: ECHA

8.2. Exposure controls

Safety signs



Eye / face protection

Suitable eye protection

Wear safety goggles.

Hand protection

Skin- / hand protection, short term contact

Wear protective gloves made of nitrile rubber.

Breakthrough time

Value: > 480 minute(s)

Skin protection

Suitable protective clothing

Wear suitable protective clothing.

Respiratory protection

Respiratory protection necessary at

In case of inadequate ventilation wear respiratory protection.

Recommended respiratory protection

Filter apparatus type: A-P2

Appropriate environmental exposure control

Environmental exposure controls

Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Odour	Characteristic
Melting point / melting range	Value: < -10 °C
Boiling point / boiling range	Value: ~ 230 °C
Flash point	Value: > 70 °C
Bulk density	Value: ~ 0,96 g/cm ³ Temperature: 20 °C

Solubility	Medium: Water Comments: Soluble
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9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

10.2. Chemical stability

Stability	The product is stable when used in accordance with the supplier's directions.
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10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid	Avoid heating and contact with ignition sources.
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10.5. Incompatible materials

Materials to avoid	Avoid contact with strong oxidising agents. Avoid contact with strong bases. Avoid contact with strong acids. Avoid contact with strong reducing agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	No one at the recommended storage conditions.
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SECTION 11: Toxicological information

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

Substance	1-butylpyrrolidin-2-one
Acute toxicity	Effect tested: LD50 Route of exposure: Oral Value: 300 - 2000 mg/kg bw Animal test species: Rat Test reference: Supplier
	Effect tested: LD50 Route of exposure: Dermal Value: > 2000 mg/kg bw Animal test species: Rat Test reference: Supplier
Substance	2-(2-butoxyethoxy)ethanol
Acute toxicity	Effect tested: LD50 Route of exposure: Oral Value: 2410 - 5530 mg/kg bw Animal test species: Mouse

	Test reference: ECHA
	Effect tested: LD50
	Route of exposure: Dermal
	Value: 2764 mg/kg bw
	Animal test species: Rabbit
	Test reference: ECHA
Substance	Kaliumhydroxid
Acute toxicity	Effect tested: LD50
	Route of exposure: Oral
	Value: 333 - 388 mg/kg bw
	Animal test species: Rat
	Test reference: ECHA

Other information regarding health hazards

Assessment of acute toxicity, classification	Harmful if swallowed.
Assessment of skin corrosion / irritation, classification	Causes skin irritation.
Assessment of eye damage or irritation, classification	Causes serious eye irritation.
Assessment of respiratory sensitisation, classification	Based on existing data, the classification criteria are deemed not to have been met.
Assessment of skin sensitisation, classification	Based on existing data, the classification criteria are deemed not to have been met.
Sensitisation	Based on existing data, the classification criteria are deemed not to have been met.
Assessment of germ cell mutagenicity, classification	Based on existing data, the classification criteria are deemed not to have been met.
Assessment of carcinogenicity, classification	Based on existing data, the classification criteria are deemed not to have been met.
Assessment of reproductive toxicity, classification	Based on existing data, the classification criteria are deemed not to have been met.
Assessment of specific target organ toxicity - single exposure, classification	Based on existing data, the classification criteria are deemed not to have been met.
Assessment of specific target organ toxicity - repeated exposure, classification	Based on existing data, the classification criteria are deemed not to have been met.
Assessment of aspiration hazard, classification	Based on existing data, the classification criteria are deemed not to have been met.

11.2 Other information

SECTION 12: Ecological information

12.1. Toxicity

Substance	1-butylpyrrolidin-2-one
Aquatic toxicity, fish	Value: 100 mg/l Effect dose concentration: EC50 Test duration: 48 hour(s) Test reference: ECHA
Substance	2-(2-butoxyethoxy)ethanol
Aquatic toxicity, fish	Value: 1,3 g/l Effect dose concentration: LC50 Test duration: 96 hour(s) Test reference: ECHA
Substance	1-butylpyrrolidin-2-one
Aquatic toxicity, algae	Value: 130 - 160 mg/l Effect dose concentration: EC50 Test duration: 72 hour(s) Test reference: ECHA
Substance	2-(2-butoxyethoxy)ethanol
Aquatic toxicity, algae	Value: 100 mg/l Effect dose concentration: EC50 Test duration: 48 hour(s) Test reference: ECHA
Substance	1-butylpyrrolidin-2-one
Aquatic toxicity, crustacean	Value: 100 mg/l Effect dose concentration: EC50 Test duration: 48 hour(s) Species: Daphnia magna Test reference: ECHA
Substance	2-(2-butoxyethoxy)ethanol
Aquatic toxicity, crustacean	Value: 100 mg/l Effect dose concentration: EC50 Test duration: 48 hour(s) Test reference: ECHA

12.2. Persistence and degradability

Persistence and degradability description/evaluation	Inherently biodegradable.
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12.3. Bioaccumulative potential

Bioaccumulation, comments	Contains a substance with potential for food chain accumulation.
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12.4. Mobility in soil

Mobility	The product contains a substance with high mobility in soil, which constitutes a risk for leaching to groundwater.
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12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment The mixture does not meet the criteria for PBT or vPvB.

12.6. Endocrine disrupting properties

12.7. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

EWC waste code EWC waste code: 140603 other solvents and solvent mixtures

SECTION 14: Transport information

14.1. UN number

Comments The product is not covered by the rules for transport of dangerous goods by road and sea according to ADR and IMDG.

14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

14.5. Environmental hazards

ADR/RID/ADN No

IMDG No

14.6. Special precautions for user

14.7. Maritime transport in bulk according to IMO instruments

SECTION 15: Regulatory information

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

15.2. Chemical safety assessment

Chemical safety assessment performed No

SECTION 16: Other information

List of relevant H-phrases (Section 2 and 3)	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H319 Causes serious eye irritation.
Training advice	No special training is required, but a thorough knowledge of this safety data sheet should be a prerequisite condition.
Information added, deleted or revised	Relevant changes compared to the previous version of the safety data sheet are indicated with vertical lines in the left margin.
Version	1
Prepared by	OQEMA ApS