

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Name : Waterborne polyurethane topcoat - gloss
Trade name : AQUAPUR PU 100-90

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture : The product is intended for professional use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

NOVOL Sp. z o.o.

Żabikowska 7/9

62-052 KOMORNIKI

Poland

T 0048618109800 - F 0048618109809

www.novol.com

E-mail address of competent person responsible for the SDS : dokumentacja@novol.com

1.4. Emergency telephone number

Emergency number : 112

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Skin sensitisation, Category 1 H317

Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412

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

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Contains :

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P261 - Avoid breathing vapours, spray.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P312 - Call doctor if you feel unwell.

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2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 111-76-2 EC-No.: 203-905-0 EC Index-No.: 603-014-00-0 REACH-no: 01-2119475108-36	3 – 6	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Hydrocarbons, C9, aromatics	EC-No.: 918-668-5 REACH-no: 01-2119455851-35	2 – 4	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
	EC-No.: 929-018-5 REACH-no: 01-21194575108-36	1 – 3	Asp. Tox. 1, H304
2-(2-butoxyethoxy)ethanol substance with national workplace exposure limit(s) (GB); substance with a Community workplace exposure limit	CAS-No.: 112-34-5 EC-No.: 203-961-6 EC Index-No.: 603-096-00-8 REACH-no: 01-2119475104-44	1 – 2	Eye Irrit. 2, H319
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	CAS-No.: 1065336-91-5 EC-No.: 915-687-0 REACH-no: 01-2119491304-40	< 0.5	Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
N,N-dimethylethanolamine substance with national workplace exposure limit(s) (GB)	CAS-No.: 108-01-0 EC-No.: 203-542-8 EC Index-No.: 603-047-00-0 REACH-no: 01-2119492298-24	< 0.33	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
N,N-dimethylethanolamine	CAS-No.: 108-01-0 EC-No.: 203-542-8 EC Index-No.: 603-047-00-0 REACH-no: 01-2119492298-24	(5 \leq C \leq 100) STOT SE 3, H335

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

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: General information. Refer to section 11.
First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If skin irritation continues, consult a doctor.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
First-aid measures after ingestion	: If swallowed: rinse mouth. Do NOT induce vomiting. Call a physician immediately.

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

Symptoms/effects after inhalation	: Vapours may cause drowsiness and dizziness.
Symptoms/effects after skin contact	: Prolonged or repeated contact may cause skin to become dry.
Symptoms/effects after eye contact	: May cause eye irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Dry chemical, CO ₂ , dry sand, or alcohol-resistant foam.
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5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Carbon monoxide. Other toxic gases.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Remove ignition sources. Ensure that there is a suitable ventilation system. Avoid any direct or indirect contact with ingredients released. Avoid contact with skin and eyes. Use personal protective equipment as required. See Section 8.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. See Section 8.
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6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter into surface water or drains. Do not allow product to reach ground water, water bodies or sewage system, even in small quantities.

6.3. Methods and material for containment and cleaning up

For containment	: Cover spill with non combustible material, e.g.: sand, earth, vermiculite. Mechanically recover the product.
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6.4. Reference to other sections

Disposal considerations. See Section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Wear personal protective equipment.
Hygiene measures	: Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ground/bond container and receiving equipment.
Storage conditions	: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Protect against frost.
Storage temperature	: 5 – 25 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-Butoxyethanol
IOEL TWA [ppm]	20 ppm
IOEL STEL	246 mg/m ³
IOEL STEL [ppm]	50 ppm
Remark	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	2-Butoxyethanol
WEL TWA (OEL TWA) [1]	123 mg/m ³
WEL TWA (OEL TWA) [2]	25 ppm
WEL STEL (OEL STEL)	246 mg/m ³
WEL STEL (OEL STEL) [ppm]	50 ppm
Remark	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
United Kingdom - Biological limit values	
Local name	2-Butoxyethanol
BMGV	240 mmol/mol Creatinine Parameter: butoxyacetic acid - Medium: urine - Sampling time: Post shift
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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2-(2-butoxyethoxy)ethanol (112-34-5)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-(2-Butoxyethoxy)ethanol
IOEL TWA	67.5 mg/m ³
IOEL TWA [ppm]	10 ppm
IOEL STEL	101.2 mg/m ³
IOEL STEL [ppm]	15 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	2-(2-Butoxyethoxy)ethanol
WEL TWA (OEL TWA) [1]	67.5 mg/m ³
WEL TWA (OEL TWA) [2]	10 ppm
WEL STEL (OEL STEL)	101.2 mg/m ³
WEL STEL (OEL STEL) [ppm]	15 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
N,N-dimethylethanolamine (108-01-0)	
United Kingdom - Occupational Exposure Limits	
Local name	2-Dimethylaminoethanol
WEL TWA (OEL TWA) [1]	7.4 mg/m ³
WEL TWA (OEL TWA) [2]	2 ppm
WEL STEL (OEL STEL)	22 mg/m ³
WEL STEL (OEL STEL) [ppm]	6 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	EN 482. Workplace exposure - General requirements for the performance of procedures for the measurement of chemical agents.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	1091 mg/m ³
Acute - local effects, inhalation	246 mg/m ³
Long-term - systemic effects, inhalation	98 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	426 mg/m ³
Acute - systemic effects, oral	26.7 mg/kg bodyweight/day
Acute - local effects, inhalation	147 mg/m ³
Long-term - systemic effects, oral	6.3 mg/kg bodyweight/day

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2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)	
Long-term - systemic effects, inhalation	59 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	8.8 mg/l
PNEC aqua (marine water)	0.88 mg/l
PNEC aqua (intermittent, freshwater)	26.4 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	34.6 mg/kg dwt
PNEC sediment (marine water)	3.46 mg/kg dwt
PNEC (Soil)	
PNEC soil	2.33 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	0.02 g/kg food
PNEC (STP)	
PNEC sewage treatment plant	463 mg/l
Hydrocarbons, C9, aromatics	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	150 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	11 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	32 mg/m ³
Long-term - systemic effects, dermal	11 mg/kg bodyweight/day
2-(2-butoxyethoxy)ethanol (112-34-5)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	101.2 mg/m ³
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	67.5 mg/m ³
Long-term - local effects, inhalation	67.5 mg/m ³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	60.7 mg/m ³
Long-term - systemic effects, oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	40.5 mg/m ³
Long-term - systemic effects, dermal	50 mg/kg bodyweight/day
Long-term - local effects, inhalation	40.5 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	1.1 mg/l
PNEC aqua (marine water)	0.11 mg/l
PNEC aqua (intermittent, freshwater)	11 mg/l

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2-(2-butoxyethoxy)ethanol (112-34-5)	
PNEC (Sediment)	
PNEC sediment (freshwater)	4.4 mg/kg dwt
PNEC sediment (marine water)	0.44 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.32 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	56 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	200 mg/l
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.68 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.05 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.17 mg/m ³
Long-term - systemic effects, dermal	0.25 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.0022 mg/l
PNEC aqua (marine water)	0.00022 mg/l
PNEC aqua (intermittent, freshwater)	0.009 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	1.05 mg/kg dwt
PNEC sediment (marine water)	0.11 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.21 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	1 mg/l
N,N-dimethylethanolamine (108-01-0)	
DNEL/DMEL (Workers)	
Acute - systemic effects, dermal	1.2 mg/kg bodyweight/day
Acute - systemic effects, inhalation	5.28 mg/m ³
Acute - local effects, dermal	100 µg/cm ²
Acute - local effects, inhalation	13.53 mg/m ³
Long-term - systemic effects, dermal	0.25 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.76 mg/m ³
Long-term - local effects, inhalation	1.76 mg/m ³

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N,N-dimethylethanolamine (108-01-0)	
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.126 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.43755 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	0.0661 mg/l
PNEC aqua (marine water)	0.004 mg/l
PNEC aqua (intermittent, freshwater)	0.661 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.246 mg/kg dwt
PNEC sediment (marine water)	0.015 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.01 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Viton® II	6 (> 480 minutes)	0,7 mm		EN 374-3
Disposable gloves	Nitrile rubber (NBR)	2 (> 30 minutes)	0,4 mm		EN 374-3

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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Respiratory protection			
Device	Filter type	Condition	Standard
Gas mask with filter type	Filter A1/B1		EN 14387

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not available
Boiling point	: 100 °C
Flammability	: Not applicable
Explosive properties	: No data available.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Soluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: 1.1 g/cm ³
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions of use.

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10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Keep away from sources of ignition. Prevent build-up of electrostatic charges (e.g. by grounding). Protect from sunlight. Avoid high temperatures. Keep out of frost.

10.5. Incompatible materials

No contact with: strong acids, strong bases and strong oxidants.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition may produce : Carbon monoxide. Other toxic gases.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)	
LD50 oral	1414 mg/kg bodyweight Animal: guinea pig, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1020 - 1961
LD50 dermal rat	> 2000 mg/kg Source: ECHA

Hydrocarbons, C9, aromatics	
LD50 dermal rabbit	> 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	> 6193 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Remarks on results: other:

LD50 oral rat	> 15000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 oral	> 15000 mg/kg bodyweight Animal:
LD50 dermal rabbit	≥ 3160 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	≥ 6.1 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

2-(2-butoxyethoxy)ethanol (112-34-5)	
LD50 oral rat	5660 mg/kg
LD50 dermal rabbit	2764 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 2090 - 3645

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
LD50 oral rat	3230 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), 95% CL: 2615 - 4247
LD50 dermal rat	> 3170 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

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N,N-dimethylethanolamine (108-01-0)	
LD50 oral rat	2000 mg/kg
LD50 dermal rabbit	1220 mg/kg
LC50 Inhalation - Rat [ppm]	1641 ppm
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
N,N-dimethylethanolamine (108-01-0)	
pH	11 – 12
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
N,N-dimethylethanolamine (108-01-0)	
pH	11 – 12
Respiratory or skin sensitisation	: May cause an allergic skin reaction. (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)	
IARC group	3 - Not classifiable
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
Hydrocarbons, C9, aromatics	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)	
NOAEL (dermal, rat/rabbit, 90 days)	> 150 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study), Remarks on results: other:
Hydrocarbons, C9, aromatics	
NOAEL (oral, rat, 90 days)	600 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Hydrocarbons, C9, aromatics	
NOAEC (inhalation, rat, vapour, 90 days)	> 10.4 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
2-(2-butoxyethoxy)ethanol (112-34-5)	
NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
NOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents), Guideline: EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Hydrocarbons, C9, aromatics	
Viscosity, kinematic	1.66 mm ² /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm ² /s)'

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2-(2-butoxyethoxy)ethanol (112-34-5)	
Viscosity, kinematic	≈ 6.794 mm ² /s
Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
Viscosity, kinematic	478 mm ² /s Temp.: '20°C' Parameter: 'kinematic viscosity (in mm ² /s)'
N,N-dimethylethanolamine (108-01-0)	
Viscosity, kinematic	40268.539 mm ² /s

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects. (Based on available data, the classification criteria are not met)

Not rapidly degradable

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)	
LC50 - Fish [1]	1474 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	≈ 1800 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	911 mg/l Source: ECHA
NOEC (chronic)	100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 100 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'

Hydrocarbons, C9, aromatics

EC50 72h - Algae [1]	0.42 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0.29 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

2-(2-butoxyethoxy)ethanol (112-34-5)	
LC50 - Fish [1]	1300 mg/l Test organisms (species): Lepomis macrochirus
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate (1065336-91-5)	
LC50 - Fish [1]	0.9 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 72h - Algae [1]	1.68 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	0.42 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

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N,N-dimethylethanolamine (108-01-0)	
LC50 - Fish [1]	146.63 mg/l Test organisms (species): Leuciscus idus
EC50 - Crustacea [1]	98.37 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	66.08 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve (111-76-2)	
Partition coefficient n-octanol/water (Log Pow)	0.81 Source: ECHA
2-(2-butoxyethoxy)ethanol (112-34-5)	
Partition coefficient n-octanol/water (Log Pow)	0.56
N,N-dimethylethanolamine (108-01-0)	
Partition coefficient n-octanol/water (Log Pow)	-0.94

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Do not discharge into drains.
Product/Packaging disposal recommendations	: This material and its container must be disposed of as hazardous waste. Do not dispose of with domestic waste. After cleaning, recycle or dispose of at an authorised site.
Additional information	: Flammable vapours may accumulate in the container.
European List of Waste (LoW) code	: 08 01 11* - waste paint and varnish containing organic solvents or other dangerous substances 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
NOT SUBJECT	NOT SUBJECT	NOT SUBJECT

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ADR	IMDG	IATA
14.1. UN number or ID number		
Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name		
Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

Special transport precautions : Not regulated for transport

Overland transport

Transport regulations (ADR) : Not applicable

Transport by sea

Transport regulations (IMDG) : Not applicable

Air transport

Transport regulations (IATA) : Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

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Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

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Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail

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Abbreviations and acronyms:	
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources : ECHA (European Chemicals Agency).
Training advice : Handle in accordance with good industrial hygiene and safety procedures.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B

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Full text of H- and EUH-statements:	
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Skin Sens. 1	H317	Expert judgment
Aquatic Chronic 3	H412	Expert judgment

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.