

Trade name: PLIXXOPOL RF 2217A**Product no.:** 2725**Current version:** 1.1.0, Revision: 13.05.2026**Replaced version:** 1.0.1, Revision: 11.09.2024**Region:** GB**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name****PLIXXOPOL RF 2217A****1.2 Relevant identified uses of the substance or mixture and uses advised against****Relevant identified uses of the substance or mixture**

Polyol components for the production of polyurethanes

Uses advised against

No data available.

1.3 Details of the supplier of the safety data sheet**Address**

PLIXXENT Holding GmbH

Gasstraße 18

22761 Hamburg
Germany

Telephone no. +49 441 68099 190

e-mail productsafety@plixxent.com

Advice on Safety Data Sheet

sdb_info@umco.de

1.4 Emergency telephone number

In case of transport incidents and other emergencies:

+44 (0) 1235 239 670 (NCEC, National Chemical Emergency Centre)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification in accordance with Regulation (EC) No 1272/2008 (CLP)**

Eye Irrit. 2; H319

Skin Irrit. 2; H315

Classification information

EG/1272/2008, 2.6.4.5: "Liquids with a flash point of more than 35 °C need not be classified in Category 3 if negative results have been obtained in the sustained combustibility test L.2, Part III, section 32 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria."

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation)****Hazard pictograms**

GHS07

Signal word

Warning

Hazard statement(s)

H315

Causes skin irritation.

H319

Causes serious eye irritation.

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Precautionary statement(s)

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313

If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

No data available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not applicable. The product is not a substance.

3.2 Mixtures**Hazardous ingredients**

No	Substance name	Additional information	
	CAS / EC / Index / REACH no	Classification (EC) 1272/2008 (CLP)	Concentration %
1	propylene carbonate		
	108-32-7 203-572-1 607-194-00-1 01-2119537232-48	Eye Irrit. 2; H319	< 5.00 wt%
2	formic acid		pls. refer to footnote (2)
	64-18-6 200-579-1 607-001-00-0 01-2119491174-37	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318 Acute Tox. 3; H331 EUH071	< 2.50 wt%
3	cyclohexyldimethylamine		
	98-94-2 202-715-5 - 01-2119533030-60	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 Aquatic Chronic 3; H412 Flam. Liq. 3; H226 Skin Corr. 1B; H314 Eye Dam. 1; H318	< 2.50 wt%
4	cyclopentane		
	287-92-3 206-016-6 601-030-00-2 01-2119463053-47	Aquatic Chronic 3; H412 Flam. Liq. 2; H225 Asp. Tox. 1; H304 STOT SE 3; H336 EUH066	< 2.50 wt%

Full text of H- and EUH-phrases, if not already mentioned in section 2.2: see section 16.

(2) According to the latest state of knowledge and applying the criteria set out in annex I to Regulation (EC) No 1272/2008, the aforementioned classification is required. This classification goes beyond the classification set out in table 3, Annex VI to Regulation (CE) No 1272/2008.

No	Note	Specific concentration limits	M-factor (acute)	M-factor (chronic)
2	B	Eye Irrit. 2; H319: C >= 2% Skin Irrit. 2; H315: C >= 2% Skin Corr. 1B; H314: C >= 10% Eye Dam. 1; H318: C >= 10% Skin Corr. 1A; H314: C >= 90% Eye Dam. 1; H318: C >= 90%	-	-

Full text for the notes: pls. see section 16 "Notes relating to the identification, classification and labelling of substances ((EC) No 1272/2008, Annex VI)".

Acute toxicity estimate (ATE) values

No	oral	dermal	inhalative
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2	730 mg/kg bodyweight		7,85 mg/l
3	289 mg/kg bodyweight	380 mg/kg bodyweight	3 mg/l

3.3 Other information

Any substances in the candidate list (SVHC) in accordance with REACH regulation (EC) 1907/2006 that may be contained in the product are specified in section 15.

SECTION 4: First aid measures**4.1 Description of first aid measures****General information**

Remove contaminated clothing and shoes immediately, and launder thoroughly before reusing.

After inhalation

Remove to fresh air, keep patient warm and at rest. In case of persisting adverse effects consult a physician.

After skin contact

When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.

After eye contact

Remove contact lenses. Rinse eye thoroughly under running water keeping eyelids wide open and protecting the unaffected eye (at least 10 to 15 minutes). Seek medical assistance.

After ingestion

Rinse the mouth thoroughly with water. Do not induce vomiting. Call a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No data available.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures**5.1 Extinguishing media****Suitable extinguishing media**

Carbon dioxide; Foam; Extinguishing powder; Fight larger fires with directed water spray.

Unsuitable extinguishing media

High power water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon dioxide (CO₂); Carbon monoxide (CO); Nitrogen oxides (NO_x); Hydrogen cyanide (HCN)

5.3 Advice for firefighters

Use self-contained breathing apparatus. Wear protective clothing. Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Refer to protective measures listed in sections 7 and 8.

For emergency responders

Personal protective equipment (PPE) - see section 8.

6.2 Environmental precautions

Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil.

6.3 Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

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Information regarding safe handling, see section 7. Information regarding personal protective measures, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Risks inherent to handling the product must be minimised by applying the appropriate protective and preventive measures. Working processes should - so far as possible, according to the state of the art - be designed to rule out bodily contact or the release of hazardous substances. Provide good ventilation at the work area (local exhaust ventilation, if necessary).

General protective and hygiene measures

Do not eat, drink or smoke during work time. Keep away from foodstuffs and beverages. Do not inhale vapours. Avoid contact with eyes and skin. Wash hands before breaks and after work. Remove contaminated clothing and shoes and launder thoroughly before reusing.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep container tightly closed and dry in a cool, well-ventilated place.

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

No	Substance name	CAS no.	EC no.
1	formic acid	64-18-6	200-579-1
	2006/15/EC		
	Formic acid		
	WEL long-term (8-hr TWA reference period)	9	mg/m ³ 5 ppm
	List of approved workplace exposure limits (WELs) / EH40		
	Formic acid		
	WEL long-term (8-hr TWA reference period)	9.6	mg/m ³ 5 ppm

DNEL, DMEL and PNEC values

DNEL values (worker)

DNEL values (worker)				CAS / EC no	
No	Substance name				
	Route of exposure	Exposure time	Effect	Value	
1	propylene carbonate			108-32-7 203-572-1	
	dermal	Long term (chronic)	systemic	20	mg/kg/day
	dermal	Long term (chronic)	local	10	mg/cm²
	inhalative	Long term (chronic)	systemic	70.53	mg/m³
	inhalative	Long term (chronic)	local	20	mg/m³
2	formic acid			64-18-6 200-579-1	
	inhalative	Long term (chronic)	local	9.5	mg/m³
	inhalative	Long term (chronic)	systemic	9.5	mg/m³
3	cyclohexyldimethylamine			98-94-2 202-715-5	
	dermal	Long term (chronic)	systemic	0.6	mg/kg/day
	dermal	Long term (chronic)	local		
	Comments: high hazard (no threshold derived)				
	dermal	Short term (acute)	local		
	Comments: high hazard (no threshold derived)				
	inhalative	Long term (chronic)	local	8.3	mg/m³

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	inhalative	Short term (acute)	local	8.3	mg/m ³
	inhalative	Long term (chronic)	systemic	0.53	
4	cyclopentane			287-92-3 206-016-6	
	dermal	Long term (chronic)	systemic	432	mg/kg/day
	inhalative	Long term (chronic)	systemic	3000	mg/m ³

DNEL value (consumer)

No	Substance name			CAS / EC no	
	Route of exposure	Exposure time	Effect	Value	
1	propylene carbonate			108-32-7 203-572-1	
	oral	Long term (chronic)	systemic	10	mg/kg/day
	dermal	Long term (chronic)	systemic	10	mg/kg/day
	inhalative	Long term (chronic)	systemic	17.4	mg/m ³
	inhalative	Long term (chronic)	local	10	mg/m ³
2	formic acid			64-18-6 200-579-1	
	inhalative	Long term (chronic)	local	3	mg/m ³
	inhalative	Long term (chronic)	systemic	3	mg/m ³
3	cyclopentane			287-92-3 206-016-6	
	oral	Long term (chronic)	systemic	214	mg/kg/day
	dermal	Long term (chronic)	systemic	214	mg/kg/day
	inhalative	Long term (chronic)	systemic	643	mg/m ³

PNEC values

No	Substance name		CAS / EC no	
	ecological compartment	Type	Value	
1	propylene carbonate		108-32-7 203-572-1	
	water	fresh water	0.9	mg/L
	water	marine water	0.09	mg/L
	soil	-	0.81	mg/kg dry weight
	sewage treatment plant	-	7400	mg/L
2	formic acid		64-18-6 200-579-1	
	water	fresh water	2	mg/L
	water	marine water	0.2	mg/L
	water	fresh water sediment	13.4	mg/kg dry weight
	water	marine water sediment	1.34	mg/kg dry weight
	soil	-	1.5	mg/kg dry weight
	sewage treatment plant	-	7.2	mg/L
3	cyclohexyldimethylamine		98-94-2 202-715-5	
	water	fresh water	3.5	µg/L
	water	marine water	0.35	µg/L
	water	Aqua intermittent	35	µg/L
	water	fresh water sediment	36.92	µg/kg dry weight
	water	marine water sediment	3.69	µg/kg dry weight
	soil	-	5.33	µg/kg dry weight
	sewage treatment plant	-	20.60	mg/L

8.2 Exposure controls

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Appropriate engineering controls

Ensure adequate ventilation, local exhaust at the work station if necessary.

Personal protective equipment**Respiratory protection**

If workplace exposure limits are exceeded, a respiration protection approved for this particular job must be worn. In case of aerosol, vapour and mist formation, take appropriate measures for breathing protection in the event workplace threshold values are not specified. Breathing apparatus: ABEK

Eye / face protection

Safety glasses with side protection shield (EN 166)

Hand protection

Sufficient protection is given wearing suitable protective gloves checked according to i.e. EN 374, in the event of risk of skin contact with the product. Check in any case suitability of protective glove for the specific workplace conditions (e.g. mechanical resistance, product compatibility, antistatic properties). Adhere to the manufacturer's instructions and information relating to the use, storage, care and replacement of protective gloves. Replace immediately protective gloves if worn or damaged.

Appropriate Material

nitrile rubber

Material thickness

>=

0.35

mm

Other

Chemical-resistant work clothes.

Environmental exposure controls

No data available.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

State of aggregation		
liquid		
Form		
liquid		
Colour		
yellowish		
Odour		
characteristic		
pH value		
Value	3.3	
Boiling point / boiling range		
Value	94	°C
Melting point/freezing point		
No data available		
Decomposition temperature		
No data available		
Flash point		
Value	>	39 °C
Ignition temperature		
No data available		
Flammability		
No data available		
Lower explosion limit		
No data available		
Upper explosion limit		
No data available		

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Vapour pressure

Value	58.00	hPa
Reference temperature	20	°C
Value	215.0	hPa
Reference temperature	50	°C
Value	262.0	hPa
Reference temperature	55	°C

Relative vapour density

No data available

Relative density

No data available

Density

Value	1.08	g/cm ³
Reference temperature	20	°C

Solubility in water

Comments miscible

Solubility

No data available

Partition coefficient n-octanol/water (log value)

No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
	log Pow	-0.41	
	Reference temperature	20	°C
	Source	ECHA	
2	formic acid	64-18-6	200-579-1
	log Pow	-2.1	
	Reference temperature	23	°C
	Method	92/69/EEC, A.8	
	Source	ECHA	
3	cyclohexyldimethylamine	98-94-2	202-715-5
	log Pow	2.01	
	Reference temperature	25	°C
	Method	OECD 107	
	Source	ECHA	
4	cyclopentane	287-92-3	206-016-6
	log Pow	3	
	Reference temperature	25	°C
	with reference to	pH 7	
	Source	ECHA	

Kinematic viscosity

Value	950	mPa*s
Reference temperature	21	°C
Type	dynamic	

Particle characteristics

No data available

9.2 Other information**Other information**

No data available.

SECTION 10: Stability and reactivity**10.1 Reactivity**

No data available.

10.2 Chemical stability

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Stable under recommended storage and handling conditions (See section 7).

10.3 Possibility of hazardous reactions

Dangerous reactions are not to be expected when handling product according to its intended use.

10.4 Conditions to avoid

No data available.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

None if stored, handled and transported properly.

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**

Acute oral toxicity (result of the ATE calculation for the mixture)	
Product Name	
PLIXXOPOL RF 2217A	
Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE oral > 2000 mg/kg).

Acute oral toxicity			
No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
LD50	>	5000	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		
2	formic acid	64-18-6	200-579-1
LD50		730	mg/kg bodyweight
Species	rat		
Method	OECD 401		
Source	ECHA		
3	cyclohexyldimethylamine	98-94-2	202-715-5
LD50		289	mg/kg bodyweight
Species	rat		
Source	ECHA		
4	cyclopentane	287-92-3	206-016-6
LD50	>	5000	mg/kg bodyweight
Species	rat		
Method	OECD 423		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Acute dermal toxicity (result of the ATE calculation for the mixture)	
Product Name	
PLIXXOPOL RF 2217A	
Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE dermal > 2000 mg/kg).

Acute dermal toxicity			
No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
LD50	>=	2000	mg/kg bodyweight
Species	rabbit		

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Method	OECD 402
Source	ECHA
2	cyclohexyldimethylamine
	98-94-2
	202-715-5
LD50	380 mg/kg bodyweight
Species	rat
Method	OECD 402
Source	ECHA

Acute inhalational toxicity (result of the ATE calculation for the mixture)**Product Name****PLIXXOPOL RF 2217A**

Comments	The result of the applied calculation method according to the European Regulation (EC) 1272/2008 (CLP), Paragraph 3.1.3.6, Part 3 of Annex I is outside the values that imply a classification / labelling of this mixture according to table 3.1.1 defining the respective categories (ATE for inhalation: > 20.000 ppmV (gases), > 20 mg/l (vapours), > 5 mg/l (dusts/mists).
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Acute inhalational toxicity

No	Substance name	CAS no.	EC no.
1	formic acid	64-18-6	200-579-1
LC50		7.85	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Method	OECD 403		
Source	ECHA		
2	cyclohexyldimethylamine	98-94-2	202-715-5
LC50		1.7	mg/l
Duration of exposure		6	h
State of aggregation	Vapour		
Species	rat		
Method	OECD 403		
Source	ECHA		
3	cyclopentane	287-92-3	206-016-6
LC50		>	mg/l
Duration of exposure		4	h
State of aggregation	Vapour		
Species	rat		
Method	OECD 403		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Skin corrosion/irritation

No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
Species	rabbit		
Method	OECD 404		
Source	ECHA		
Evaluation	non-irritant		
2	cyclopentane	287-92-3	206-016-6
Species	rabbit		
with reference to	CAS 109-66-0		
Method	OECD 404		
Source	ECHA / Read across		
Evaluation	non-irritant		

Serious eye damage/irritation

No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
Species	rabbit		
Method	OECD 405		
Source	ECHA		

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Evaluation	Irritating to eyes
2 cyclopentane	287-92-3 206-016-6
Species	rabbit
with reference to	CAS 109-66-0
Method	OECD 405
Source	ECHA / Read across
Evaluation	non-irritant

Respiratory or skin sensitisation		
No	Substance name	CAS no. EC no.
1	formic acid	64-18-6 200-579-1
Route of exposure	Skin	
Species	guinea pig	
Method	OECD 406	
Source	ECHA	
Evaluation	non-sensitizing	
2	cyclohexyldimethylamine	98-94-2 202-715-5
Route of exposure	Skin	
Species	mouse	
Method	OECD 429	
Source	ECHA	
Evaluation	non-sensitizing	
3	cyclopentane	287-92-3 206-016-6
Route of exposure	Skin	
Species	guinea pig	
with reference to	CAS 109-66-0	
Method	OECD 406	
Source	ECHA / Read across	
Evaluation	non-sensitizing	

Germ cell mutagenicity		
No	Substance name	CAS no. EC no.
1	propylene carbonate	108-32-7 203-572-1
Species	hepatocytes: Adult male F344 rats	
Method	OECD 482	
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
2	formic acid	64-18-6 200-579-1
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
3	cyclohexyldimethylamine	98-94-2 202-715-5
Type of examination	in vitro gene mutation study in bacteria	
Species	Salmonella typhimurium TA98, TA100, TA1535, TA1537	
Method	OECD 471	
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	
4	cyclopentane	287-92-3 206-016-6
Type of examination	In vitro Mammalian Chromosomal Aberration Test	
Species	Chinese hamster Ovary (CHO)	
with reference to	CAS 109-66-0	
Method	EU Method B.10	
Source	ECHA / Read across	
Evaluation/classification	Based on available data, the classification criteria are not met.	

Reproduction toxicity		
No	Substance name	CAS no. EC no.
1	propylene carbonate	108-32-7 203-572-1
Route of exposure	oral	
NOAEL	10100	mg/kg bw/d
Species	mouse	
Source	ECHA	
Evaluation/classification	Based on available data, the classification criteria are not met.	

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2	formic acid	64-18-6	200-579-1
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		
3	cyclohexyldimethylamine	98-94-2	202-715-5
Route of exposure	oral		
NOAEL	> 1500 ppm		
Duration of exposure	54 day(s)		
Type of examination	Combined Repeated Dose Toxicity Study with the Reproduction/Developmental Toxicity Screening Test		
Species	rats (male/female)		
Method	OECD 422		
Source	ECHA		
4	cyclopentane	287-92-3	206-016-6
Route of exposure	inhalational		
Type of examination	Two-Generation Reproduction Toxicity Study		
Species	rat		
with reference to	CAS 110-82-7		
Method	OECD 416		
Source	ECHA / Read across		
Evaluation/classification	Based on available data, the classification criteria are not met.		

Carcinogenicity

No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
Route of exposure	dermal		
Species	mouse		
Method	OECD 451		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are not met.		

STOT - single exposure

No data available

STOT - repeated exposure

No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
Route of exposure	oral		
NOAEL	> 5000 mg/kg bw/d		
Species	rat		
Method	OECD 408		
Source	ECHA		
Route of exposure	inhalational		
NOAEC	100 mg/m ³		
Species	rat		
Method	OECD 413		
Source	ECHA		
2	formic acid	64-18-6	200-579-1
Route of exposure	inhalational		
NOAEC	0.122 mg/l		
Duration of exposure	13 week/s		
Species	rat		
Method	OECD 413		
Source	ECHA		
Evaluation/classification	Based on available data, the classification criteria are met.		
3	cyclohexyldimethylamine	98-94-2	202-715-5
Route of exposure	oral		
NOAEL	100 mg/kg bw/d		
Duration of exposure	90 day(s)		
Species	rats (male/female)		
Method	OECD 408		
Source	ECHA		
Route of exposure	inhalational		
NOEL	104 mg/m ³		

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Species	rats (male/female)		
Source	ECHA		
4	cyclopentane	287-92-3	206-016-6
Route of exposure	inhalational		
NOAEC		30	mg/l
Duration of exposure		90	day(s)
Species	rats (male/female)		
Method	OECD 413		
Source	ECHA		

Aspiration hazard

No data available

11.2 Information on other hazards**Endocrine disrupting properties**

No data available

Other information

No data available.

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to fish (acute)			
No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
LC50	>	1000	mg/l
Duration of exposure		96	h
Species	Cyprinus carpio		
Method	EU C.1		
Source	ECHA		
2	formic acid	64-18-6	200-579-1
LC50		130	mg/l
Duration of exposure		96	h
Species	Danio rerio		
with reference to	CAS 540-69-2		
Method	OECD 203		
Source	ECHA		
3	cyclohexyldimethylamine	98-94-2	202-715-5
LC50		31.58	mg/l
Duration of exposure		96	h
Species	Leuciscus idus		
Method	DIN 38 412, Part 15		
Source	ECHA		

Toxicity to fish (chronic)

No data available

Toxicity to Daphnia (acute)			
No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
EC50	>	1000	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
Method	OECD 202		
Source	ECHA		
2	formic acid	64-18-6	200-579-1
EC50		365	mg/l
Duration of exposure		48	h
Species	Daphnia magna		
with reference to	CAS 540-69-2		
Method	OECD 202		

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Source		ECHA	
3	cyclohexyldimethylamine	98-94-2	202-715-5
EC50		75	mg/l
Duration of exposure		48	h
Species		Daphnia magna	
Method		OECD 202	
Source		ECHA	

Toxicity to Daphnia (chronic)			
No	Substance name	CAS no.	EC no.
1	formic acid	64-18-6	200-579-1
NOEC	>=	100	mg/l
Duration of exposure		21	day(s)
Species	Daphnia magna		
Method	OECD 211		
Source	ECHA		

Toxicity to algae (acute)			
No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
EC50	>	900	mg/l
Duration of exposure		72	h
Species	Desmodesmus subspicatus		
Method	OECD 201		
Source	ECHA		
2	formic acid	64-18-6	200-579-1
EC50	>	1000	mg/l
Duration of exposure		72	h
Species	Desmodesmus subspicatus		
with reference to	CAS 590-29-4		
Method	OECD 201		
Source	ECHA		
3	cyclohexyldimethylamine	98-94-2	202-715-5
EC50		3.5	mg/l
Duration of exposure		72	h
Species	Pseudokirchneriella subcapitata		
Method	OECD 201		
Source	ECHA		

Toxicity to algae (chronic)			
No data available			

Bacteria toxicity			
No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
EC50		25619	mg/l
Species	Pseudomonas putida		
Method	DIN 38412 T.8		
Source	ECHA		
2	formic acid	64-18-6	200-579-1
NOEC		72	mg/l
Duration of exposure		13	day(s)
Species	activated sludge		
Method	92/69/EEC, C.3.		
Source	ECHA		
3	cyclohexyldimethylamine	98-94-2	202-715-5
EC50		206	mg/l
Duration of exposure		17	h
Species	Pseudomonas putida		
Method	DIN 38412 T.8		
Source	ECHA		

12.2 Persistence and degradability

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Biodegradability			
No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
Type		aerobic biodegradation	
Value		83.5	%
Duration		29	day(s)
Method		OECD 301 B	
Source		ECHA	
Evaluation		readily biodegradable	
2	formic acid	64-18-6	200-579-1
Type		aerobic biodegradation	
Value		100	%
Duration		14	day(s)
Method		OECD 301 C	
Source		ECHA	
Evaluation		readily biodegradable	
3	cyclohexyldimethylamine	98-94-2	202-715-5
Type		aerobic biodegradation	
Value		90	- 100
Duration		18	day(s)
Method		OECD 301 A	
Source		ECHA	
Evaluation		readily biodegradable	
4	cyclopentane	287-92-3	206-016-6
Type		aerobic biodegradation	
Value		0	%
Duration		28	day(s)
Method		OECD 301 F	
Source		ECHA	
Evaluation		The product is not biodegradable.	
Abiotic Degradation			
No	Substance name	CAS no.	EC no.
1	formic acid	64-18-6	200-579-1
Type		Hydrolysis	
Half-life		119	h
pH value		7	
Reference temperature		50	°C
Method		440/2008/EC C.7.	
Source		ECHA	

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)			
No	Substance name	CAS no.	EC no.
1	propylene carbonate	108-32-7	203-572-1
log Pow		-0.41	
Reference temperature		20	°C
Source	ECHA		
2	formic acid	64-18-6	200-579-1
log Pow		-2.1	
Reference temperature		23	°C
Method	92/69/EEC, A.8		
Source	ECHA		
3	cyclohexyldimethylamine	98-94-2	202-715-5
log Pow		2.01	
Reference temperature		25	°C
Method	OECD 107		
Source	ECHA		
4	cyclopentane	287-92-3	206-016-6
log Pow		3	
Reference temperature		25	°C
with reference to	pH 7		

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Source

ECHA

12.4 Mobility in soil

Mobility in soil			
No	Substance name	CAS no.	EC no.
1	formic acid	64-18-6	200-579-1
log K _{oc}		<	1.25
Reference temperature			23 °C
Method		OECD 121	
Source		ECHA	

12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment			
No	Substance name	CAS no.	EC no.
1	cyclopentane	287-92-3	206-016-6
PBT assessment		The substance is not PBT.	
vPvB assessment		The substance is not vPvB.	

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No data available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods****Product**

Disposal of the product should be carried out in accordance with all applicable regulations following consultation with the responsible local authority and the disposal company in an authorised and suitable disposal facility. Allocation of a waste code number, according to the European Waste Catalogue, should be carried out in agreement with the regional waste disposal company.

Packaging

Residues must be removed from packaging and when emptied completely disposed of in accordance with the regulations for waste removal. Incompletely emptied packaging must be disposed of in the form of disposal specified by the regional disposer.

SECTION 14: Transport information**14.1 UN number or ID number**

Not classified as dangerous in the meaning of transport regulations.

14.2 UN proper shipping name

Not classified as dangerous in the meaning of transport regulations.

14.3 Transport hazard class(es)

Not classified as dangerous in the meaning of transport regulations.

14.4 Packing group

Not classified as dangerous in the meaning of transport regulations.

14.5 Environmental hazards

Not classified as dangerous in the meaning of transport regulations.

14.6 Special precautions for user

No data available.

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

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EU regulations**Regulation (EC) No 1907/2006 (REACH) Annex XIV (List of substances subject to authorisation)**

According to the data available and/or specifications supplied by upstream suppliers, this product does not contain any substances considered as substances requiring authorisation as listed on Annex XIV of the REACH regulation (EC) 1907/2006.

REACH candidate list of substances of very high concern (SVHC) for authorisation

According to available data and the information provided by preliminary suppliers, the product does not contain substances that are considered substances meeting the criteria for inclusion in annex XIV (List of Substances Subject to Authorisation) as laid down in Article 57 and article 59 of REACH (EC) 1907/2006.

Regulation (EC) No 1907/2006 (REACH) Annex XVII: RESTRICTIONS ON THE MANUFACTURE, PLACING ON THE MARKET AND USE OF CERTAIN DANGEROUS SUBSTANCES, MIXTURES AND ARTICLES

The product is considered being subject to REACH regulation (EC) 1907/2006 annex XVII. No 3

The product contains following substance(s) that are considered being subject to REACH regulation (EC) 1907/2006 annex XVII.

No	Substance name	CAS no.	EC no.	No
1	BIS(2-DIMETHYLAMINOETHYL)(METHYL)AMINE	3030-47-5	221-201-1	75
2	formic acid	64-18-6	200-579-1	75
3	propylene carbonate	108-32-7	203-572-1	75

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

This product is not subject to Part 1 or 2 of Annex I.

Directive 2010/75/EU on industrial emissions (integrated pollution prevention and control)

VOC content	2.32 %
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15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information**Further information**

Safety precautions for handling freshly molded polyurethane parts:

Depending on the production parameters, any uncovered surfaces of freshly molded polyurethane parts using this raw material may contain traces of substances (e. g. starting and reaction products, catalysts, release agents) with hazardous characteristics. Skin contact with traces of these substances must be avoided. Therefore, during demolding or other handling of fresh molded parts, protective gloves tested according to DIN-EN 374 (e. g. nitrile rubber $\geq 0,35$ mm thick, breakthrough time ≥ 480 min, or according to recommendations from glove makers thinner gloves that need to be changed in compliance with breakthrough times more frequently) must be used. Depending on formulation and processing conditions, the requirements may be different from handling of the pure substances. Closed protective clothing is required for the protection of other areas of skin.

Sources of key data used to compile the data sheet:

Regulation (EC) No 1907/2006 (REACH), 1272/2008 (CLP) as amended in each case.

Directives 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164.

National Threshold Limit Values of the corresponding countries as amended in each case.

Transport regulations according to ADR, RID, IMDG, IATA as amended in each case.

The data sources used to determine physical, toxic and ecotoxic data, are indicated directly in the corresponding section.

Full text of the H- and EUH- phrases drawn up in sections 2 and 3 (provided not already drawn up in these sections)

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

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H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

Classification information

EG/1272/2008, 2.6.4.5: "Liquids with a flash point of more than 35 °C need not be classified in Category 3 if negative results have been obtained in the sustained combustibility test L.2, Part III, section 32 of the UN Recommendations on the Transport of Dangerous Goods, Manual of Tests and Criteria."

This product is assessed and classified using the methods and criteria below referred to in Article 9 of Regulation (EC) n° 1272/2008:

Physical hazards: determined through assessment data based on the methods or standards referred to in part 2 of Annex I to CLP

Health hazards and environmental hazards: determined through toxicological and ecotoxicological assessment data based on the methods or standards referred to in Part 3, 4 and 5 of Annex I to CLP.

Notes relating to the identification, classification and labelling of substances and mixtures ((EC) No 1272/2008, Annex VI)

B	Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.
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Creation of the safety data sheet

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This information is based on our present knowledge and experience.

The safety data sheet describes products with a view to safety requirements.

It does not however, constitute a guarantee for any specific product properties and shall not establish a legally valid contractual relationship.

Alterations/supplements:

Alterations to the previous edition are marked in the left-hand margin.

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