

Safety Data Sheet according to (EC) No 1907/2006 as amended

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SDS No.: 237394 V018.2

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Replaces version from: 26.10.2022

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

1.1. Product identifier

TEROSON PU 9500 FOAM AE400ML

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

Intended use:

Filling and isolation foam

TEROSON PU 9500 FOAM AE400ML

1.3. Details of the supplier of the safety data sheet

Henkel Ltd Adhesives Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website https://mysds.henkel.com/index.html#/appSelection or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Aerosol Category 1

H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

Acute toxicity Category 4

H332 Harmful if inhaled. Route of Exposure: Inhalation

Skin irritation Category 2

H315 Causes skin irritation.

Serious eye irritation Category 2

H319 Causes serious eye irritation.

Respiratory sensitizer Category 1

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitizer Category 1

H317 May cause an allergic skin reaction.

Carcinogenicity Category 2

H351 Suspected of causing cancer.

Specific target organ toxicity - single exposure Category 3

H335 May cause respiratory irritation.

Target organ: respiratory tract irritation

Specific target organ toxicity - repeated exposure Category 2

H373 May cause damage to organs through prolonged or repeated exposure.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains 1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 1-[2-(2-hydroxyethoxy)ethyl] 2-(2-

hydroxypropyl) ester, polymers wit

Diphenylmethane diisocyanate, isomers and homologues

Signal word: Danger

Hazard statement: H222 Extremely flammable aerosol.

H229 Pressurized container: May burst if heated.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation. H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

Supplemental information As from 24 August 2023 adequate training is required before industrial or professional

use

Further information: https://www.feica.eu/PUinfo

Precautionary statement:

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe spray.

P280 Wear protective gloves/eye protection.

Precautionary statement:

Response

P308+P313 IF exposed or concerned: Get medical advice/attention.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

Precautionary statement:

Storage

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

2.3. Other hazards

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M- factors and ATEs	Add. Information
1,2-Benzenedicarboxylic acid, 3, 4,5,6-tetrabromo-, 1-[2-(2- hydroxyethoxy)ethyl] 2-(2- hydroxypropyl) ester, polymers wit 2639874-15-8	40- 60 %	Acute Tox. 4, Inhalation, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Resp. Sens. 1, H334 STOT SE 3, H335 Carc. 2, H351 STOT RE 2, H373		
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4 01-2119486772-26	10- 20 %	Acute Tox. 4, Oral, H302 Aquatic Chronic 3, H412		
Isobutane 75-28-5 200-857-2 01-2119485395-27	5- < 10 %	Flam. Gas 1A, H220 Press. Gas Liquef. Gas, H280		
dimethyl ether 115-10-6 204-065-8 01-2119472128-37	5- < 10 %	Flam. Gas 1A, H220 Press. Gas Liquef. Gas, H280		EU OEL
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	2,5-< 5 %	Carc. 2, H351 Acute Tox. 4, Inhalation, H332 STOT RE 2, H373 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317	Eye Irrit. 2; H319; C >= 5 % Skin Irrit. 2; H315; C >= 5 % Resp. Sens. 1; H334; C >= 0,1 % STOT SE 3; H335; C >= 5 %	
Ethane-1,2-diol 107-21-1 203-473-3 01-2119456816-28	2,5-< 5 %	Acute Tox. 4, Oral, H302 STOT RE 2, Oral, H373	oral:ATE = 500 mg/kg	EU OEL
Propane 74-98-6 200-827-9 01-2119486944-21	2,5-< 5 %	Flam. Gas 1A, H220 Press. Gas H280		

For full text of the H - statements and other abbreviations see section 16 "Other information". Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

Symptoms of poisoning may occur even after several hours, continue medical observation for at least 48 hours after the accident.

Inhalation:

Fresh air, oxygen supply, warmth; seek specialist medical attention.

Delayed effects possible after inhalation.

Skin contact:

IF ON SKIN: Wash with plenty of soap and water. In case of adverse health effects seek medical advice.

Eye contact:

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

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

SKIN: Rash, Urticaria.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

SKIN: Redness, inflammation.

EYE: Irritation, conjunctivitis.

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

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

All common extinguishing agents are suitable.

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In case of fire toxic gases can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus.

Wear protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective equipment.

Avoid contact with skin and eyes.

Keep unprotected persons away.

Danger of slipping on spilled product.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Remove with liquid-absorbing material (sand, peat, sawdust).

Dispose of contaminated material as waste according to Section 13.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid open flames and sources of ignition.

Use only non-sparking tools.

Use explosion proof electric equipment.

Ground/bond container and receiving equipment.

Take precautionary measures against static discharge.

Hygiene measures:

Do not eat, drink or smoke while working. Wash hands before work breaks and after finishing work.

Take off contaminated clothing and wash before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Ensure good ventilation/extraction.

Store in sealed original container protected against moisture.

Store in a cool, frost-free place.

Store in a cool, well-ventilated place.

Storage at 15 to 25°C is recommended.

Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Filling and isolation foam

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for

Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Dimethyl ether 115-10-6 [DIMETHYL ETHER]	400	766	Time Weighted Average (TWA):		EH40 WEL
Dimethyl ether 115-10-6 [DIMETHYLETHER]	1.000	1.920	Time Weighted Average (TWA):	Indicative	ECTLV
Dimethyl ether 115-10-6 [DIMETHYL ETHER]	500	958	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Diphenylmethane diisocyanate, isomers and homologs 9016-87-9 [ISOCYANATES, ALL (AS -NCO)]		0,02	Time Weighted Average (TWA):		EH40 WEL
Diphenylmethane diisocyanate, isomers and homologs 9016-87-9 [ISOCYANATES, ALL (AS -NCO)]		0,07	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, PARTICULATE]		10	Time Weighted Average (TWA):		EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]	20	52	Time Weighted Average (TWA):		EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, PARTICULATE]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	40	104	Short Term Exposure Limit (STEL):	Indicative	ECTLV
Ethane-1,2-diol 107-21-1 [ETHYLENE GLYCOL]	20	52	Time Weighted Average (TWA):	Indicative	ECTLV
Ethane-1,2-diol 107-21-1 [ETHANE-1,2-DIOL, VAPOUR]	40	104	Short Term Exposure Limit (STEL):	15 minutes	EH40 WEL

Occupational Exposure Limits

Valid for

Ireland

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Dimethyl ether 115-10-6 [DIMETHYL ETHER]	1.000	1.920	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Dimethyl ether 115-10-6 [DIMETHYLETHER]	1.000	1.920	Time Weighted Average (TWA):	Indicative	ECTLV
Isobutane 75-28-5 [ISOBUTANE]	1.000		Short Term Exposure Limit (STEL):	15 minutes	IR_OEL
Diphenylmethane diisocyanate, isomers and homologs 9016-87-9 [ISOCYANATES, ALL, EXCEPT METHYL ISOCYANATE (CAS NO. 624-83-9) AND TOLUENE (2,4 OR 2,6 DIISOCYANATE (CAS NO. 584-84-9, 91-		0,07	Short Term Exposure Limit (STEL):	15 minutes	IR_OEL

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[08-7)]		0.02	TD' XX7 ' 1 4 1 A		ID OF
Diphenylmethane diisocyanate, isomers and		0,02	Time Weighted Average (TWA):		IR_OEL
homologs 9016-87-9			(1 WA):		
[ISOCYANATES, ALL, EXCEPT METHYL ISOCYANATE (CAS NO. 624-					
83-9) AND TOLUENE (2,4 OR 2,6					
DIISOCYANATE (CAS NO. 584-84-9, 91-					
[08-7)]					
	10	104	GI (T. F.	T 1'	ECTI V
Ethane-1,2-diol	40	104	Short Term Exposure	Indicative	ECTLV
107-21-1			Limit (STEL):		
[ETHYLENE GLYCOL]		1			
Ethane-1,2-diol	20	52	Time Weighted Average	Indicative	ECTLV
107-21-1			(TWA):		
[ETHYLENE GLYCOL]					
Ethane-1,2-diol		20	Time Weighted Average	Indicative OELV	IR_OEL
107-21-1			(TWA):		
[ETHANE-1,2-DIOL, VAPOUR]					
Ethane-1,2-diol	20	52	Time Weighted Average	Indicative OELV	IR_OEL
107-21-1			(TWA):		
[ETHANE-1,2-DIOL]					
Ethane-1,2-diol			Skin designation:	Can be absorbed through the	IR_OEL
107-21-1				skin.	
[ETHANE-1,2-DIOL]					
Ethane-1,2-diol	40	104	Short Term Exposure	15 minutes	IR_OEL
107-21-1			Limit (STEL):	Indicative OELV	
[Ethane-1,2-diol]					

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value	Value			Remarks
	Î		mg/l	ppm	mg/kg	others	
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	aqua (marine water)		0,032 mg/l				
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	oral				11,6 mg/kg		
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	Soil				0,34 mg/kg		
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	sediment (marine water)				1,15 mg/kg		
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	Sewage treatment plant		19,1 mg/l				
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	aqua (freshwater)		0,32 mg/l				
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	sediment (freshwater)				11,5 mg/kg		
Dimethyl ether 115-10-6	aqua (freshwater)		0,155 mg/l				
Dimethyl ether 115-10-6 Dimethyl ether	sediment (freshwater) Soil				0,681 mg/kg 0,045		
115-10-6	5011				mg/kg		
Dimethyl ether 115-10-6	sewage treatment plant (STP)		160 mg/l				
Dimethyl ether 115-10-6	aqua (marine water)		0,016 mg/l				
Dimethyl ether 115-10-6	aqua (intermittent releases)		1,549 mg/l				
Dimethyl ether 115-10-6	sediment (marine water)				0,069 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	Workers	inhalation	Long term exposure - systemic effects		8,2 mg/m3	
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	Workers	inhalation	Acute/short term exposure - systemic effects		22,6 mg/m3	
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	Workers	dermal	Long term exposure - systemic effects		2,91 mg/kg	
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	General population	inhalation	Long term exposure - systemic effects		1,45 mg/m3	
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	General population	inhalation	Acute/short term exposure - systemic effects		5,6 mg/m3	
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	General population	dermal	Long term exposure - systemic effects		1,04 mg/kg	
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	General population	oral	Long term exposure - systemic effects		0,52 mg/kg	
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	General population	oral	Acute/short term exposure - systemic effects		2 mg/kg	
Ethane-1,2-diol 107-21-1	Workers	dermal	Long term exposure - systemic effects		106 mg/kg	
Ethane-1,2-diol 107-21-1	Workers	inhalation	Long term exposure - local effects		35 mg/m3	
Ethane-1,2-diol 107-21-1	General population	dermal	Long term exposure - systemic effects		53 mg/kg	
Ethane-1,2-diol 107-21-1	General population	inhalation	Long term exposure - local effects		7 mg/m3	

Biological Exposure Indices:

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	 Basis of biol. exposure index	 Additional Information
isomers and homologs	Isocyanate- derived diamine	Creatinine in urine	Sampling time: At the end of the period of exposure.	UKEH40BMG V	

8.2. Exposure controls:

Engineering controls:

Use only in well ventilated areas.

Draw off vapors and fumes directly at the point of generation or release. In the case of regular work use bench-mounted extraction equipment.

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN

This recommendation should be matched to local conditions.

Eye protection:

Goggles which can be tightly sealed.

Protective eye equipment should conform to EN166.

Skin protection:

Wear protective equipment.

Protective clothing that covers arms and legs.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway), or equivalent.

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state liquid
Delivery form aerosol
Colour light blue
Odor ether-like

Melting point Not applicable, Product is a liquid

Initial boiling point < 60 °C (< 140 °F) Flammability Flammable aerosol.

Explosive limits

lower 1,5 %(V); upper 26,2 %(V);

Upper/lower explosion limit

Flash point Not available.

Auto-ignition temperature Currently under determination

Decomposition temperature Not applicable, Substance/mixture is not self-reactive, no

organic peroxide and does not decompose under foreseen

conditions of use

pH Not applicable, Product is non-soluble (in water).

Viscosity (kinematic) Currently under determination

Viscosity, dynamic Not available.

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Solubility (qualitative) Partially miscible

(20 °C (68 °F); Solvent: Water)

Partition coefficient: n-octanol/water Not applicable

Mixture

Vapour pressure 5500 - 6000 mbar
Density 1,05 g/cm3 no method

(20 °C (68 °F))

Relative vapour density:

Particle characteristics

Not available.

Not applicable

Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

None if used for intended purpose.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

None if used for intended purpose.

10.5. Incompatible materials

None if used properly.

10.6. Hazardous decomposition products

No decomposition if used according to specifications.

SECTION 11: Toxicological information

General toxicological information:

An allergic reaction cannot be excluded after repeated skin contact.

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

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Species	Method
CAS-No.	type			
1,2-Benzenedicarboxylic	LD50	> 10.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
acid, 3,4,5,6-tetrabromo-,				
1-[2-(2-hydroxyethoxy)				
ethyl] 2-(2-				
hydroxypropyl) ester,				
polymers wit				
2639874-15-8				
Phosphoric trichloride,	LD50	632 mg/kg	rat	EU Method B.1 (Acute Toxicity (Oral))
reaction products with				
propylene oxide				
1244733-77-4	1.5.50	2 000 1		OPER CITIES AND
Diphenylmethane	LD50	> 2.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
diisocyanate, isomers and				
homologues				
9016-87-9				
Ethane-1,2-diol	Acute	500 mg/kg		Expert judgement
107-21-1	toxicity			
	estimate			
	(ATE)			

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 1-[2-(2-hydroxyethoxy) ethyl] 2-(2- hydroxypropyl) ester, polymers wit 2639874-15-8	LD50	> 9.400 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	LD50	> 9.400 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Ethane-1,2-diol 107-21-1	LD50	10.600 mg/kg	rabbit	not specified

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Test atmosphere		Species	Method
CAS-No.	type			time		
1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 1-[2-(2-hydroxyethoxy) ethyl] 2-(2- hydroxypropyl) ester, polymers wit 2639874-15-8	LC50	1,5 mg/l	dust/mist	4 h	rat	Expert judgement
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	LC50	> 7 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Isobutane 75-28-5	LC50	260200 ppm	gas	4 h	mouse	not specified
dimethyl ether 115-10-6	LC50	164000 ppm	gas	4 h	rat	not specified
Propane 74-98-6	LC50	> 800000 ppm	gas	15 min	rat	not specified

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Ethane-1,2-diol 107-21-1	not irritating	20 h	rabbit	BASF Test

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Result	Exposure	Species	Method
CAS-No.		time		
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Ethane-1,2-diol 107-21-1	not irritating		rabbit	BASF Test

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	sensitising	Skin sensitisation	guinea pig	OECD Guideline 406 (Skin Sensitisation)
Ethane-1,2-diol 107-21-1	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	positive	mammalian cell gene mutation assay	with		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Isobutane 75-28-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Isobutane 75-28-5	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
dimethyl ether 115-10-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
dimethyl ether 115-10-6	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
dimethyl ether 115-10-6	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		EU Method B.13/14 (Mutagenicity)
Ethane-1,2-diol 107-21-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Propane 74-98-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Propane 74-98-6	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	negative	oral: gavage		rat	not specified
Isobutane 75-28-5	negative	oral: feed		Drosophila melanogaster	not specified
Isobutane 75-28-5	negative	inhalation: gas		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
dimethyl ether 115-10-6	negative	inhalation: gas		Drosophila melanogaster	equivalent or similar to OECD Guideline 477 (Genetic Toxicology: Sex-linked Recessive Lethal Test in Dros. melanog.)
Ethane-1,2-diol 107-21-1	negative	oral: feed		rat	Chromosome Aberration Test
Propane 74-98-6	negative			Drosophila melanogaster	not specified
Propane 74-98-6	negative	inhalation: gas		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
dimethyl ether 115-10-6	not carcinogenic	inhalation	2 y 6 h/d, 5 d/w	rat	male/female	equivalent or similar OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	NOAEL P ca. 85 mg/kg	Two generation study	oral: feed	rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
Isobutane 75-28-5	NOAEL P 21,4 mg/l NOAEL F1 21,4 mg/l	screening	inhalation: gas	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
dimethyl ether 115-10-6	NOAEL P 2.5 %	other	inhalation: gas	rat	other guideline:
dimethyl ether 115-10-6	NOAEL P 1.6 %	screening	inhalation: gas	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Propane 74-98-6	NOAEL P 21,6 mg/l NOAEL F1 21,6 mg/l	screening	inhalation: gas	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure:

No data available.

STOT-repeated exposure::

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	NOAEL 100 mg/kg	oral: gavage	28 d diaily	rat	EU Method B.7 (Repeated Dose (28 Days) Toxicity (Oral))
Isobutane 75-28-5	NOAEL 9000 ppm	inhalation: gas	28 d 6 h/d, 7 d/w	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
dimethyl ether 115-10-6	NOAEL 47,106 mg/l NOAEL 2.5 %	inhalation: gas	2 y 6 h/d; 5 d/w	rat	equivalent or similar to OECD Guideline 452 (Chronic Toxicity Studies)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	NOAEL 0,0002 mg/l	inhalation: aerosol	2 y 6 h per d, 5 d per week	rat	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Ethane-1,2-diol 107-21-1	NOAEL 150 mg/kg	oral: feed	16 w daily	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Propane 74-98-6		inhalation: gas	28 d 6 h/d, 7 d/w	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains, soil or bodies of water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 1-[2-(2- hydroxyethoxy)ethyl] 2-(2- hydroxypropyl) ester, polymers wit 2639874-15-8	LC50	> 1.000 mg/l	96 h	not specified	not specified
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	LC50	56,2 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	other guideline:
dimethyl ether 115-10-6	LC50	> 4.000 mg/l	96 h	Poecilia reticulata	OECD Guideline 203 (Fish, Acute Toxicity Test)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	LC50	> 1.000 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethane-1,2-diol 107-21-1	LC50	72.860 mg/l	96 h	Pimephales promelas	EPA-660 (Methods for Acute Toxicity Tests with Fish, Macroinvertebrates and Amphibians)
Ethane-1,2-diol 107-21-1	NOEC	15.380 mg/l	7 d	Pimephales promelas	other guideline:

Toxicity (Daphnia):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 1-[2-(2- hydroxyethoxy)ethyl] 2-(2- hydroxypropyl) ester, polymers wit 2639874-15-8	EC50	> 1.000 mg/l	48 h	not specified	not specified
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	EC50	131 mg/l	48 h	Daphnia magna	not specified
dimethyl ether 115-10-6	EC50	> 4.000 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	EC50	> 1.000 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethane-1,2-diol 107-21-1	EC50	> 100 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity to aquatic invertebrates

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type				
1,2-Benzenedicarboxylic acid,	NOEC	> 100 mg/l			not specified
3,4,5,6-tetrabromo-, 1-[2-(2-					_
hydroxyethoxy)ethyl] 2-(2-					
hydroxypropyl) ester,					

polymers wit 2639874-15-8					
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	NOEC	32 mg/l	21 d	1	OECD Guideline 202 (Daphnia sp. Chronic Immobilisation Test)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	NOEC	10 mg/l	21 d	1 0	OECD 211 (Daphnia magna, Reproduction Test)
Ethane-1,2-diol 107-21-1	NOEC	8.590 mg/l	7 d	Ceriodaphnia dubia	other guideline:

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances	Value	Value	Exposure time	Species	Method
CAS-No.	type		_		
1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 1-[2-(2- hydroxyethoxy)ethyl] 2-(2- hydroxypropyl) ester, polymers wit 2639874-15-8	EC50	> 1.000 mg/l	72 h	not specified	not specified
1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 1-[2-(2- hydroxyethoxy)ethyl] 2-(2- hydroxypropyl) ester, polymers wit 2639874-15-8	NOEC	> 100 mg/l		not specified	not specified
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	EC50	82 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	NOEC	13 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
dimethyl ether 115-10-6	EC50	> 1.000 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	EC50	> 1.640 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethane-1,2-diol 107-21-1	EC50	> 6.500 - 13.000 mg/l	96 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethane-1,2-diol 107-21-1	NOEC	> 100 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity to microorganisms

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	EC 50	784 mg/l	3 h	activated sludge	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)
dimethyl ether 115-10-6	EC10	> 1.600 mg/l	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	EC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Ethane-1,2-diol 107-21-1	EC20	> 1.995 mg/l	30 min	activated sludge, domestic	ISO 8192 (Test for Inhibition of Oxygen Consumption by Activated Sludge)

12.2. Persistence and degradability

Hazardous substances	Result	Test type	Degradability	Exposure	Method
CAS-No.				time	
1,2-Benzenedicarboxylic acid, 3,4,5,6-tetrabromo-, 1-[2-(2- hydroxyethoxy)ethyl] 2-(2- hydroxypropyl) ester, polymers wit 2639874-15-8	not readily biodegradable.		< 60 %		OECD 301 A - F
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	not readily biodegradable.	aerobic	14 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Isobutane 75-28-5	readily biodegradable	aerobic	71,43 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
dimethyl ether 115-10-6	readily biodegradable	aerobic	> 60 %	28 d	OECD 301 A - F
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	not inherently biodegradable	aerobic	0 %	28 d	OECD Guideline 302 C (Inherent Biodegradability: Modified MITI Test (II))
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	not readily biodegradable.	not specified	0 %	28 d	OECD 301 A - F
Ethane-1,2-diol 107-21-1	readily biodegradable	aerobic	> 90 - 100 %	10 d	OECD Guideline 301 A (new version) (Ready Biodegradability: DOC Die Away Test)
Propane 74-98-6	readily biodegradable	aerobic	> 60 %	28 d	OECD 301 A - F

12.3. Bioaccumulative potential

Hazardous substances CAS-No.	Bioconcentratio n factor (BCF)	Exposure time	Temperature	Species	Method
Phosphoric trichloride, reaction products with propylene oxide 1244733-77-4	0,8 - < 14	42 d		Cyprinus carpio	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
Diphenylmethane diisocyanate, isomers and homologues 9016-87-9	200			Cyprinus carpio	OECD Guideline 305 (Bioconcentration: Flow-through Fish Test)

12.4. Mobility in soil

Hazardous substances	LogPow	Temperature	Method
CAS-No.			
Phosphoric trichloride,	2,68	30 °C	EU Method A.8 (Partition Coefficient)
reaction products with			
propylene oxide			
1244733-77-4			
Isobutane	2,88	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake
75-28-5			Flask Method)
dimethyl ether	0,07	25 °C	QSAR (Quantitative Structure Activity Relationship)
115-10-6			
Ethane-1,2-diol	-1,36		QSAR (Quantitative Structure Activity Relationship)
107-21-1			

12.5. Results of PBT and vPvB assessment

Hazardous substances	PBT / vPvB
CAS-No.	
Phosphoric trichloride, reaction products with	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
propylene oxide	Bioaccumulative (vPvB) criteria.
1244733-77-4	
Isobutane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
75-28-5	Bioaccumulative (vPvB) criteria.
dimethyl ether	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
115-10-6	Bioaccumulative (vPvB) criteria.
Ethane-1,2-diol	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
107-21-1	Bioaccumulative (vPvB) criteria.
Propane	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very
74-98-6	Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you. 080409

SECTION 14: Transport information

14.1. UN number or ID number

ADR	1950
RID	1950
ADN	1950
IMDG	1950
IATA	1950

14.2. UN proper shipping name

ADR	AEROSOLS
RID	AEROSOLS
ADN	AEROSOLS
IMDG	AEROSOLS
IATA	Aerosols, flammable

14.3. Transport hazard class(es)

ADR	2.1
RID	2.1
ADN	2.1
IMDG	2.1
IATA	2.1

14.4. Packing group

ADR RID ADN **IMDG IATA**

14.5. **Environmental hazards**

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
	Tunnelcode: (D)
RID	not applicable
ADN	not applicable
IMDG	not applicable
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

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009): Prior Informed Consent (PIC) (Regulation (EU) No 649/2012): Persistent organic pollutants (Regulation (EU) 2019/1021): VOC content

Not applicable Not applicable Not applicable

(2010/75/EU)

17,7 %

VOC Paints and Varnishes (EU):

Product (sub)category: This product is not a subject of the Directive 2004/42/EC

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text

of all abbreviations indicated by codes in this safety data sheet are as follows:

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

ED: Substance identified as having endocrine disrupting properties

EU OEL: Substance with a Union workplace exposure limit
EU EXPLD 1: Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2 Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC: Substance of very high concern (REACH Candidate List)

PBT: Substance fulfilling persistent, bioaccumulative and toxic criteria

PBT/vPvB: Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very

bioaccumulative criteria

vPvB: Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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