

SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

Hand Held Expanding Foam

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

1.1. Product identifier

Product name Registration number REACH Product type REACH

- : Hand Held Expanding Foam : Not applicable (mixture)
- : Mixture

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

1.2.1 Relevant identified uses polyurethane

1.2.2 Uses advised against No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

SOUDAL N.V. Everdongenlaan 18-20 B-2300 Turnhout **2** +32 14 42 42 31 +32 14 42 65 14 msds@soudal.com

Manufacturer of the product

SOUDAL N.V. Everdongenlaan 18-20 B-2300 Turnhout T +32 14 42 42 31 +32 14 42 65 14 msds@soudal.com

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):

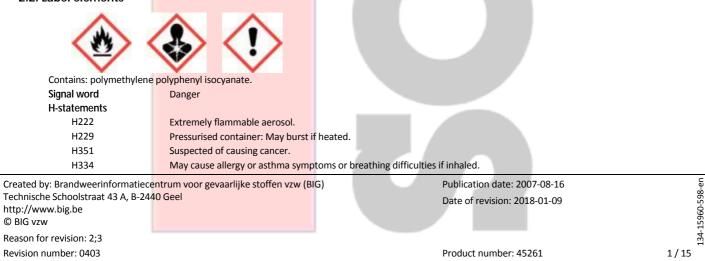
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dat	ngerous a <mark>ccording to</mark>	the criteria of Regulation (EC) No 1272/2008
Class	Category	Hazard statements
Aerosol	categ <mark>ory 1</mark>	H222: Extremely flammable aerosol.
Aerosol	categ <mark>ory 1</mark>	H229: Pressurised container: May burst if heated.
Carc.	categ <mark>ory 2</mark>	H351: Suspected of causing cancer.
Resp. Sens.	categ <mark>ory 1</mark>	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens.	categ <mark>ory 1</mark>	H317: May cause an allergic skin reaction.
Acute Tox.	categ <mark>ory 4</mark>	H332: Harmful if inhaled.
STOT RE	category 2	H373: May cause damage to organs through prolonged or repeated exposure if inhaled.
Skin Irrit.	category 2	H315: Causes skin irritation.
Eye Irrit.	category 2	H319: Causes serious eye irritation.
STOT SE	categ <mark>ory 3</mark>	H335: May cause respiratory irritation.

2.2. Label elements



	· · ·
H317	May cause an allergic skin reaction.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
P-statements	
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
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.
P302 + P352	IF ON SKIN: Wash with plenty of water and soap.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122°F.
P501	Dispose of contents/container in accordance with local/regional/national/international regulation.
Supplemental informati	on and a second s
	 Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
	- Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

- This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter

2.3. Other hazards

Gas/vapour spreads at floor level: ignition hazard

SECTION 3: Composition/information on ingredients

(i.e. type A1 according to standard EN 14387) is used.

3.1. Substances

Not applicable

3.2. Mixtures

		CAS No EC No Conc. (C) CI		Classification according to CLP	Note	Remark	
polymethylene polyphenyl isoc	yanate	9016-87-9	G	>25%	Carc. 2; H351 Resp. Sens. 1; H334 Skin Sens. 1; H317 Acute Tox. 4; H332 STOT RE 2; H373 Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335	(1)(2)(8)(10)(18)	Polymer
propane 01-2119486944-21		74-98-6 200-827-9	1	% <c<10%< td=""><td>Flam. Gas 1; H220 Press. Gas - Liquefied gas;</td><td>(1)(2)(10)</td><td>Propellant</td></c<10%<>	Flam. Gas 1; H220 Press. Gas - Liquefied gas;	(1)(2)(10)	Propellant
isobutane 01-2119485395-27		75-28-5 200-857-2	1	.% <c<10%< td=""><td>Flam. Gas 1; H220 Press. Gas - Liquefied gas;</td><td>(1)(2)(10)</td><td>Propellant</td></c<10%<>	Flam. Gas 1; H220 Press. Gas - Liquefied gas;	(1)(2)(10)	Propellant
dimethyl ether 01-2119472128-37		115-10-6 204-065-8	1	.% <c<10%< td=""><td>Flam. Gas 1; H220 Press. Gas - Liquefied gas;</td><td>(1)(2)(10)</td><td>Propellant</td></c<10%<>	Flam. Gas 1; H220 Press. Gas - Liquefied gas;	(1)(2)(10)	Propellant
(1,3-butadiene, conc<0.1%)							
reaction mass of tris(2-chloropr tris(2-chloro-1-methylethyl) ph acid, bis(2-chloro-1-methylethy and phosphoric acid, 2-chloro-1 chloropropyl) ester 01-2119486772-26	osphate and phosphoric I) 2-chloropropyl ester		1	% <c<25%< td=""><td>Acute Tox. 4; H302</td><td>(1)(10)</td><td>Constituent</td></c<25%<>	Acute Tox. 4; H302	(1)(10)	Constituent

(1) For H-statements in full: see heading 16

(2) Substance with a Community workplace exposure limit

(8) Specific concentration limits, see heading 16

(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

(18) Polymethylene polyphenyl isocyanate, contains > 0.1% MDI-isomers

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

If you feel unwell, seek medical advice.

After inhalation:

Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

Reason for revision: 2;3

Publication date: 2007-08-16 Date of revision: 2018-01-09

Revision number: 0403

Product number: 45261

After skin contact:

Wash immediately with lots of water. Take victim to a doctor if irritation persists.

After eye contact:

Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

After ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Consult a doctor/medical service if you feel

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

4.2.1 Acute symptoms After inhalation:

Dry/sore throat. Coughin<mark>g. Irritation of the respiratory tract. Irr</mark>itation of the nasal mucous membranes. Runny nose. FOLLOWING SYMPTOMS MAY APPEAR LATER: Possible inflammation of the respiratory tract. Risk of lung oedema. Respiratory difficulties.

After skin contact: Tingling/irritation of the skin. After eye contact: Irritation of the eye tissue. Lacrimation. After ingestion: No effects known.

- 4.2.2 Delayed symptoms
- No effects known.

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

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Small fire: Quick-acting ABC powder extinguisher, Quick-acting BC powder extinguisher.

5.1.2 Unsuitable extinguishing media:

Small fire: Quick-acting CO2 extinguisher, Water (water can be used to control jet flame), Foam. Major fire: Water (water can be used to control jet flame), Foam.

5.2. Special hazards arising from the substance or mixture

On burning: release of toxic and corrosive gases/vapours (phosphorus oxides, nitrous vapours, hydrogen chloride, carbon monoxide - carbon dioxide). Pressurised container: May burst if heated. May polymerize on exposure to temperature rise. On heating: release of toxic/combustible gases/vapours (hydrogen cyanide).

5.3. Advice for firefighters

5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistant risk of physical explosion. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Protective goggles. Head/neck protection. Protective clothing. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment.
- 6.1.1 Protective equipment for non-emergency personnel
 - See heading 8.2
- 6.1.2 Protective equipment for emergency responders
 - Gloves. Protective goggles. Head/neck protection. Protective clothing.

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Dam up the solid spill. Use appropriate containment to avoid environmental contamination.

6.3. Methods and material for containment and cleaning up

Allow product to solidify and remove it by mechanical means. Carefully collect the spill/leftovers. Clean (treat) contaminated surfaces with acetone. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See heading 13.

Reason for revision: 2;3

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Gas/vapour heavier than air at 20°C. Observe very strict hygiene - avoid contact. Remove contaminated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Store in a cool area. Keep out of direct sunlight. Ventilation at floor level. Fireproof storeroom. Unauthorized persons are not admitted. Meet the legal requirements. Max. storage time: 1 year(s).

7.2.2 Keep away from:

Heat sources, ignition sources, (strong) acids, (strong) bases, amines.

- 7.2.3 Suitable packaging material:
- Aerosol.
- 7.2.4 Non suitable packaging material:

No data available

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

EU			
Dimethylether		Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1000 ppm
		Time-weighted average exposure limit 8 h (Indicative occupational exposure limit value)	1920 mg/m³
Belgium			
4,4'-Diisocyanate de dip	hénylméthane (MDI)	Time-weighted average exposure limit 8 h	0.005 ppm
		Time-weighted average exposure limit 8 h	0.052 mg/m ³
Hydrocarbures aliphatiqu C4)	ies sous forme gazeuse : (Alcanes C1-	Time-weighted average exposure limit 8 h	1000 ppm
Oxyde de diméthyle		Time-weighted average exposure limit 8 h	1000 ppm
		Time-weighted average exposure limit 8 h	1920 mg/m³
The Netherlands			
Dimethylether		Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	496 ppm
		Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	950 mg/m³
		Short time value (Public occupational exposure limit value)	783 ppm
		Short time value (Public occupational exposure limit value)	1500 mg/m³
France			
4,4'-Diisocyanate de diph	énylméthane	Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	0.01 ppm
		Time-weighted average exposure limit 8 h (VL: Valeur non réglementaire indicative)	0.1 mg/m³
		Short time value (VL: Valeur non réglementaire indicative)	0.02 ppm
		Short time value (VL: Valeur non réglementaire indicative)	0.2 mg/m³
Oxyde de diméthyle		Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1000 ppm
		Time-weighted average exposure limit 8 h (VRI: Valeur réglementaire indicative)	1920 mg/m³
Germany			
4,4'-Methylendiphenyldi	socyanat	Time-weighted average exposure limit 8 h (TRGS 900)	0.05 mg/m³
Dimethylether		Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
		Time-weighted average exposure limit 8 h (TRGS 900)	1900 mg/m³
Isobutan		Time-weighted average exposure limit 8 h (TRGS 900)	1000 ppm
		Time-weighted average exposure limit 8 h (TRGS 900)	2400 mg/m³
pMDI (als MDI berechnet	:)	Time-weighted average exposure limit 8 h (TRGS 900)	0.05 mg/m³
or revision: 2;3		Publication date: 2007-08-16	
		Date of revision: 2018-01-09	
number: 0403		Product number: 45261	4 / 15

				average exposure limit 8			1000 ppm
			Time-weighted	l average exposure limit 8	3 h (TRGS 900)		1800 mg/m
ИК							
Dimethyl ether			Time-weighter	l average exposure limit 8	h (Workplace	exposure limit	400 ppm
			(EH40/2005))		,	r	
			Time-weighted	l average exposure limit 8	h (Workplace	exposure limit	766 mg/m ³
			(EH40/2005))				
			Short time valu	ue (Workplace exposure l	imit (EH40/200	5))	500 ppm
				ue (Workplace exposure l		,,	958 mg/m³
Isocyanates, all (as -NCO)) Except met	thyl isocyanate		l average exposure limit 8	3 h (Workplace	exposure limit	0.02 mg/m ³
			(EH40/2005))	- () A (= \ \	0.07
			Short time vail	ue (Workplace exposure l	Imit (EH40/200	5]]	0.07 mg/m ³
USA (TLV-ACGIH)							
Butane, all isomers				ue (TLV - Adopted Value)			1000 ppm
Methylene bisphenyl isoo	cyanate (MD	1)	Time-weighted	l average exposure limit 8	3 h (TLV - Adopt	ed Value)	0.005 ppm
b) National biological lim							
If limit values are applical	ble and avail	able these will be l	<mark>isted b</mark> elow.				
3.1.2 Sampling methods				t			
Product name			Test	Number			
Isocyanates			NIOSH	5521			
Isocyanates		41	NIOSH	5522	-]	
1.3 Applicable limit values							
If limit values are applical 1.4 DNEL/PNEC values	ble and availa	able these will be l	isted below.				
DNEL/DMEL - Workers							
reaction mass of tris(2-ch	aloropropul)	nhacabata and tric	(2 chloro 1 mothylath	w/) phosphata and phosp	haric acid his/2	chloro 1 moth	ulathul) 2 chl
ester and phosphoric acid				ivi) prosprate and prosp		-chioro-1-methy	yiethyi) z-chio
Effect level (DNEL/DM		Type	chief opropyly ester	Value		Remark	
DNEL	-	- 21	ic effects inhalation	5.82 mg/	m³		
		Acute systemic eff		22.4 mg/			
		Long-term system		-	kg bw/day		
		Acute systemic eff		8 mg/kg			
DNEL/DMEL - General po				- 0, 0	- , ,		
reaction mass of tris(2-ch		nhosnhate and tris	(2-chloro-1-methyleth	vl) phosphate and phosp	horic acid his(2	-chloro-1-meth	vlethvl) 2-chl
ester and phosphoric acid						-chioro-1-meth	
Effect level (DNEL/DM		Туре		Value		Remark	
DNEL		Long-term system	ic effects inhalation	1.46 mg/	m³		
		Acute systemic eff	fects inhalation	11.2 mg/	m³		
		Long-term system			kg bw/day		
		Acute systemic eff	f <mark>ects de</mark> rmal	4 mg/kg			
				0.52 mg/	kg bw/day		
		Long-term system	ic effects oral	0.52 mg/			
<u>PNEC</u>							
reaction mass of tris(2-ch	nloropropyl) j	phosphate and tris	(2-chloro-1-methyleth		horic acid, bis(2	-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid	nloropropyl) j	phosphate and tris -methylethyl bis(2-	(2-chloro-1-methyleth			-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments	nloropropyl) j	phosphate and tris -methylethyl bis(2- Va	(2-chloro-1-methyleth -chloropropyl) ester alue		horic acid, bis(2	-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water	nloropropyl) j d, 2-chloro-1	phosphate and tris -methylethyl bis(2- Va 0.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l			-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acio Compartments Fresh water Aqua (intermittent rele	nloropropyl) j d, 2-chloro-1	phosphate and tris -methylethyl bis(2- Va 0. 0. 0.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l			-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acio Compartments Fresh water Aqua (intermittent rele Marine water	nloropropyl) j d, 2-chloro-1	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 0. 0.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l			-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP	nloropropyl) j d, 2-chloro-1	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 0. 7.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l	yl) phosphate and phosp		-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment	nloropropyl) (d, 2-chloro-1- eases)	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 0. 7. 13	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 84 mg/l 3.4 mg/kg sediment dw	vyl) phosphate and phosp		-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment	nloropropyl) (d, 2-chloro-1- eases)	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 0. 7. 1. 1.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment dw 34 mg/kg sediment dw	vyl) phosphate and phosp		-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil	nloropropyl) (d, 2-chloro-1- eases)	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 0. 7. 1. 1. 1. 1.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 34 mg/kg sediment dw 34 mg/kg sediment dw 7 mg/kg soil dw	vyl) phosphate and phosp		-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral	nloropropyl) (d, 2-chloro-1- eases)	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 0. 7. 1. 1. 1. 1.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment dw 34 mg/kg sediment dw	vyl) phosphate and phosp		-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral 3.1.5 Control banding	hloropropyl) (d, 2-chloro-1- eases) t	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 0. 7. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 34 mg/kg sediment dw 34 mg/kg sediment dw 7 mg/kg soil dw	vyl) phosphate and phosp		-chloro-1-methy	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral If applicable and available	hloropropyl) (d, 2-chloro-1- eases) t	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 0. 7. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 34 mg/kg sediment dw 34 mg/kg sediment dw 7 mg/kg soil dw	vyl) phosphate and phosp		-chloro-1-meth	ylethyl) 2-chlo
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral Coral If applicable and available Exposure controls	nloropropyl) j d, 2-chloro-1 eases) eases) t t e it will be lis	phosphate and tris -methylethyl bis(2- Vi 0. 0. 0. 0. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment dv 34 mg/kg sediment dv 7 mg/kg soil dw 1.6 mg/kg food	v(I) phosphate and phosp	Remark		
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral Coral S.1.5 Control banding If applicable and available Exposure controls The information in this section	aloropropyl)) d, 2-chloro-1 eases) eases) t t e it will be lis	phosphate and tris -methylethyl bis(2- Vi 0. 0. 0. 7. 13 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment dv 34 mg/kg sediment dv 7 mg/kg soil dw 1.6 mg/kg food	v(I) phosphate and phosp	Remark		
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral Coral S.1.5 Control banding If applicable and available Exposure controls The information in this sectio cenarios that correspond to	aloropropyl)) d, 2-chloro-1 eases) eases) t t e it will be lis on is a genera	phosphate and tris -methylethyl bis(2- Vi 0. 0. 0. 7. 13 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment dv 34 mg/kg sediment dv 7 mg/kg soil dw 1.6 mg/kg food	v(I) phosphate and phosp	Remark		
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral Coral S.1.5 Control banding If applicable and available Exposure controls The information in this sectio cenarios that correspond to S.2.1 Appropriate engineerin	aloropropyl)) d, 2-chloro-1 eases) eases) t t e it will be lis on is a genera o your identifi ng controls	phosphate and tris -methylethyl bis(2- Vi 0. 0. 0. 7. 13 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 34 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food	vyl) phosphate and phosp	Remark	ex. Always use t	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral S.1.5 Control banding If applicable and available Exposure controls The information in this sectio cenarios that correspond to S.2.1 Appropriate engineerin Use spark-/explosionproo	e it will be lis on is a generation of controls of appliances	phosphate and tris -methylethyl bis(2- Vi 0. 0. 0. 7. 13 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 34 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food	vyl) phosphate and phosp	Remark	ex. Always use t	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral 3.1.5 Control banding If applicable and available Exposure controls The information in this section cenarios that correspond to 3.2.1 Appropriate engineerin Use spark-/explosionproof from ignition sources/spa	e it will be lis on is a generation of controls of appliances arks. Measur	phosphate and tris -methylethyl bis(2- Vi 0. 0. 0. 7. 13 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly.	vyl) phosphate and phosp	Remark	ex. Always use t	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral 3.1.5 Control banding If applicable and available Exposure controls The information in this sectio scenarios that correspond to 3.2.1 Appropriate engineerin Use spark-/explosionproo from ignition sources/spa 3.2.2 Individual protection n	e it will be lis on is a genera oyour identifi ng controls of appliances arks. Measur measures, su	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 7. 13 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment dw 34 mg/kg sediment dw 34 mg/kg sediment dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly. -tective equipment	y() phosphate and phosp	Remark	ex. Always use t	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral 3.1.5 Control banding If applicable and available . Exposure controls The information in this section scenarios that correspond to 3.2.1 Appropriate engineerin Use spark-/explosionproof from ignition sources/spa 3.2.2 Individual protection in Observe very strict hygie	e it will be lis on is a genera oyour identifi ng controls of appliances arks. Measur measures, su	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 7. 13 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	(2-chloro-1-methyleth -chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment dw 34 mg/kg sediment dw 34 mg/kg sediment dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly. -tective equipment	y() phosphate and phosp	Remark	ex. Always use t	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral 3.1.5 Control banding If applicable and available . Exposure controls The information in this section ccenarios that correspond to 3.2.1 Appropriate engineerin Use spark-/explosionproof from ignition sources/spa 3.2.2 Individual protection in Observe very strict hygie	e it will be lis on is a genera oyour identifi ng controls of appliances arks. Measur measures, su	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 34 mg/kg sediment du 34 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly. tective equipment drink or smoke during	y() phosphate and phosp	Remark	ex. Always use t	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral Oral 3.1.5 Control banding If applicable and available Exposure controls the information in this section cenarios that correspond to 3.2.1 Appropriate engineerin Use spark-/explosionproof from ignition sources/spa 3.2.2 Individual protection in Observe very strict hygieu) Respiratory protection: Full face mask with filter	e it will be lis on is a genera oyour identifi ng controls of appliances arks. Measur measures, su	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 34 mg/kg sediment du 34 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly. tective equipment drink or smoke during	y() phosphate and phosp	Remark	ex. Always use t	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral Oral 3.1.5 Control banding If applicable and available Exposure controls the information in this section cenarios that correspond to 3.2.1 Appropriate engineerin Use spark-/explosionproof from ignition sources/spa 3.2.2 Individual protection in Observe very strict hygieu) Respiratory protection: Full face mask with filter	e it will be lis on is a genera oyour identifi ng controls of appliances arks. Measur measures, su	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 34 mg/kg sediment du 34 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly. tective equipment drink or smoke during	y() phosphate and phosp	Remark	ex. Always use t	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral 3.1.5 Control banding If applicable and available tapplicable and available Exposure controls The information in this sectio ccenarios that correspond to 3.2.1 Appropriate engineerin Use spark-/explosionproo from ignition sources/spa 3.2.2 Individual protection m Observe very strict hygier () Respiratory protection:	e it will be lis on is a genera oyour identifi ng controls of appliances arks. Measur measures, su	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 34 mg/kg sediment du 34 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly. tective equipment drink or smoke during	v(I) phosphate and phosp	Remark	ex. Always use the second	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral Coral Coral Coral St. 5 Control banding If applicable and available the information in this sectio cenarios that correspond to C.2.1 Appropriate engineerin Use spark-/explosionproof from ignition sources/spa C.2.2 Individual protection m Observe very strict hygier Nespiratory protection: Full face mask with filter D Hand protection:	e it will be lis on is a genera oyour identifi ng controls of appliances arks. Measur measures, su	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 34 mg/kg sediment du 34 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly. tective equipment drink or smoke during	v(I) phosphate and phosp v(I) phosphate and phosp w w w w w w w w w w w w w	Remark	ex. Always use the second seco	he relevant e
reaction mass of tris(2-ch ester and phosphoric acid Compartments Fresh water Aqua (intermittent rele Marine water STP Fresh water sediment Marine water sediment Soil Oral Coral Coral Coral St. 5 Control banding If applicable and available the information in this sectio cenarios that correspond to C.2.1 Appropriate engineerin Use spark-/explosionproof from ignition sources/spa C.2.2 Individual protection m Observe very strict hygier Nespiratory protection: Full face mask with filter D Hand protection:	e it will be lis on is a genera oyour identifi ng controls of appliances arks. Measur measures, su	phosphate and tris -methylethyl bis(2- Va 0. 0. 0. 7. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(2-chloro-1-methyleth chloropropyl) ester alue 64 mg/l 51 mg/l 064 mg/l 84 mg/l 3.4 mg/kg sediment du 34 mg/kg sediment du 34 mg/kg sediment du 7 mg/kg soil dw 1.6 mg/kg food plicable and available, m. Take precautions a n in the air regularly. tective equipment drink or smoke during	v(I) phosphate and phosp v(I) phosphate and phosp w w w w w w w w w w w w w	Remark	ex. Always use the second seco	he relevant e

Gloves. Materials	Breakthrough time	Thickness	
	ů – Č		
LDPE (Low Density Poly Ethylene)	> 10 minutes	0.025 mm	
ve protection: Protective goggles.			
0.00			
<u>Skin protection:</u>			
Head/neck protection. Protective clo .3 Environmental exposure controls:	tning.		
See headings 6.2, 6.3 and 13			
See fieadings 0.2, 0.3 and 15			
N 9: Physical and che	mical properties		
in 9.1 Hysicar and ch			
nformation on basic physical	and chemical properties		
Physical form	Aerosol		
Odour	Characteristic odour		
Odour threshold	No data available		
Colour	Variable in colour, depending on the c	composition	
Particle size	No data available		
Explosion limits	No data available		
Flammability	Extremely flammable aerosol.		
Log Kow	Not applicable (mixture)		
Dynamic viscosity	No data available		
Kinematic viscosity	No data available		
Melting point	No data available		
Boiling point	No data available		
Evaporation rate	No data available		
Relative vapour density	>1		
Vapour pressure	No data available		
Solubility	Water ; insoluble		
	Organic solvents ; soluble		
Relative density	0.9 ; 20 °C		
Decomposition tempera <mark>ture</mark>	No data available		
Auto-ignition temperature	No data available		
Flash point	No data available		
Explosive properties	No chemical group associated with ex	· · · ·	
Oxidising properties	No chemical group associated with ox	idising properties	
pH	No data available		
Other information			
Absolute density	963 kg/m³ ; 20 °C		
N 10: Stability and re	activity		
Reactivity			

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

May polymerize with many compounds e.g.: (strong) bases and amines. Reacts violently with (some) acids/bases.

10.4. Conditions to avoid

Precautionary measures

Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks.

10.5. Incompatible materials

(strong) acids, (strong) bases, amines.

10.6. Hazardous decomposition products

On heating: release of toxic/combustible gases/vapours (hydrogen cyanide). On burning: release of toxic and corrosive gases/vapours (phosphorus oxides, nitrous vapours, hydrogen chloride, carbon monoxide - carbon dioxide).

Reason for revision: 2;3

Publication date: 2007-08-16 Date of revision: 2018-01-09

SECTI	ON 11. Toxi	cologica	l informatio	n				
	1. Information of 1.1.1 Test results	n toxicolog	Ical effects					
Acute to	oxicity							
No	Held Expanding Foam (test)data on the mi	xture a <mark>vailable</mark>						
	ssification is based o		0					
<u>po</u>	Route of exposure		Method	Value	Exposure time	Species		Remark
	Oral	LD50		> 10000 mg/kg		Rat	determination Literature study	
	Dermal	LD50		> 5000 mg/kg		Rabbit	Literature study	
	Inhalation (vapours)) LD50		10 mg/l - 20 mg/l	4 h	Rat	Literature study	
	Inhalation			category 4			Literature study	
rea	action mass of tris(2-o	chloropropyl) j	phosphate and tris(2- -methylethyl bis(2-ch	chloro-1-methyleth	yl) phosphate and	phosphoric acid, bis(2-	chloro-1-methylethyl	2-chloropropyl
<u>es</u>	Route of exposure	Parameter		Value	Exposure time	Species	Value	Remark
	Oral	LD50	EU Method B.1 tris	632 mg/kg bw		Rat (female)	determination Experimental value	
	Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male/female)	Experimental value	
	Inhalation (aerosol)	LC50	OECD 403	> 7 mg/l	4 h	Rat (male/female)	Experimental value	
	c <u>lusion</u> rmful if inhaled.							
	t classified as acute t	oxic in contact	t with skin					
Nc	t classified as acute t	oxic if <mark>swallow</mark>	ved					
Corrosio	on/irritation							
	Held Expanding Foam							
	(test)data on the mi	xture available	2					
	(test)data on the mines (test)data on the mines (test)data on the mines (test) (test)data on the mines							
Cla po	issification is based o	n the r <mark>elevant</mark> enyl iso <mark>cyanate</mark>	ingredients					
Cla po	ssification is based o	n the r <mark>elevant</mark> enyl iso <mark>cyanate</mark>	ingredients	Exposure time	Time point	Species	Value	Remark
Cla po	issification is based o lymethylene polyphe Route of exposure Eye	n the r <mark>elevant</mark> enyl isocyanate Result rritatin <mark>g;</mark>	ingredients	Exposure time	Time point	Species	Value determination Literature study	Remark
Cla po	Issification is based o Ivmethylene polyphe Route of exposure Eye	n the r <mark>elevant</mark> enyl isocyanate Result rritating; category 2 rritating;	ingredients	Exposure time	Time point	Species	determination	Remark
Cla po	ssification is based o lymethylene polyphe Route of exposure F Eye I Skin I Inhalation I	n the r <mark>elevant</mark> envl isocyanate Result rritating; category 2 rritating; category 2 rritating;	ingredients	Exposure time	Time point	Species	determination Literature study	Remark
Cla po	sification is based o lymethylene polyphe Route of exposure F Eye I Skin I Inhalation S	n the r <mark>elevant</mark> envlisocyanate Result rritating; category 2 rritating; category 2 rritating; category 2 rritating; STOT SE cat.3	ingredients Method				determination Literature study Literature study Literature study	
Cla po rea est	Sisification is based o Signethylene polyphe Route of exposure F Eye I Skin I Inhalation I action mass of tris(2-c er and phosphoric action ac	n the r <mark>elevant</mark> envl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) j cid, 2-chloro-1	ingredients Method ohosphate and tris(2methylethyl bis(2-ch	chloro-1-methyleth loropropyl) ester	yl) phosphate and r	phosphoric acid, bis(2-	determination Literature study Literature study Literature study chloro-1-methylethyl	2-chloropropyl
Cla po rea est	Sisification is based o Signethylene polyphe Route of exposure F Eye I Skin I Inhalation I Saction mass of tris(2-c	n the r <mark>elevant</mark> envl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) j cid, 2-chloro-1	ingredients Method obosphate and tris(2-	chloro-1-methyleth			determination Literature study Literature study Literature study chloro-1-methylethyl Value	
Cla po rea est	Sification is based o <u>lymethylene polyphe</u> Route of exposure F Eye f Skin f Inhalation f action mass of tris(2-c rer and phosphoric ac Route of exposure F	n the r <mark>elevant</mark> envl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) j cid, 2-chloro-1	ingredients Method ohosphate and tris(2methylethyl bis(2-ch	chloro-1-methyleth loropropyl) ester	yl) phosphate and r	phosphoric acid, bis(2-	determination Literature study Literature study Literature study chloro-1-methylethyl	2-chloropropyl Remark
Cla po rea est	Sisification is based o Signethylene polyphe Route of exposure F Eye 1 Skin 1 Inhalation 1 Section mass of tris(2-c rer and phosphoric ac Route of exposure F Eye 1 Eye 1 State 1 St	n the relevant envl isocyanate Result rritating; category 2 rritating; category 2 rritating; category 2 rritating; category 2 critating; category 2 critating; category 2 rritating; category 2 rritat	ingredients Method Method phosphate and tris(2- methylethyl bis(2-ch	chloro-1-methyleth loropropyl) ester Exposure time	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2-	determination Literature study Literature study Literature study Literature study chloro-1-methylethyl Value determination	2-chloropropyl Remark
Cla po rea est	Skin Skin Kased of Eye Skin Strike St	n the relevant envl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result	ingredients Method Dhosphate and tris(2- methylethyl bis(2-ch Method OECD 405	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and r	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po rea esi	Skin Clusion is based of the second s	n the relevant envl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result	ingredients Method Dhosphate and tris(2- methylethyl bis(2-ch Method OECD 405	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po rea esi <u>Con</u> Ca	Skin Clusion is based of the second state of exposure	n the relevant envl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) j cid, 2-chloro-1 Result Not irritating Not irritating	ingredients Method Dhosphate and tris(2- methylethyl bis(2-ch Method OECD 405	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po rea est Con Ca Ca Ca	Skin Clusion is based of the second s	n the relevant envl isocyanate Result rritating; category 2 rritating; category 2 rritating; STOT SE cat.3 chloropropyl) j cid, 2-chloro-1 Result Not irritating Not irritating	ingredients Method Dhosphate and tris(2- methylethyl bis(2-ch Method OECD 405	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po esi <u>Com</u> Ca Ca Ma	Skin Clusion is based of the second s	n the relevant envl isocyanate Result rritating; category 2 rritating; category 2 rritating; STOT SE cat.3 chloropropyl) j cid, 2-chloro-1: Result Not irritating Not irritating	ingredients Method Dhosphate and tris(2- methylethyl bis(2-ch Method OECD 405	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po est <u>Com</u> Ca Ca Ca Respira	Assification is based on the second s	n the relevant envl isocyanate Result rritating; category 2 rritating; category 2 rritating; STOT SE cat.3 chloropropyl) r cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation.	ingredients Method Method ohosphate and tris(2- chethylethyl bis(2-chethylethyl bis(2-chethylethylethyl bis(2-chethylethylethyl bis(2-chethylethylethyl bis(2-chethylethylethyl bis(2-chethylethylethyl bis(2-chethylethylethylethylethylethylethylethy	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po est <u>Com</u> Ca Ca Ca Respira <u>Hand</u> No	Assification is based on Assification is based on Assification is based on Assification is based on Assification is based on Eye and polypherication Assification mass of tris(2-c Assification mass of tris(2-c	n the relevant nyl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation. tion 1 xture available	ingredients	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po est <u>Com</u> Ca Ca Ca Respira <u>Hand</u> No	Skin Clusion is based of the second s	n the relevant nyl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation. tion 1 xture available	ingredients	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po est <u>Com</u> Ca Ca Ca Respira <u>Hand</u> No	Assification is based on Assification is based on Assification is based on Assification is based on Assification is based on Eye and polypherication Assification mass of tris(2-c Assification mass of tris(2-c	n the relevant nyl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation. tion 1 xture available	ingredients	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po est <u>Com</u> Ca Ca Ca Respira <u>Hand</u> No	Assification is based on Assification is based on Assification is based on Assification is based on Assification is based on Eye and polypherication Assification mass of tris(2-c Assification mass of tris(2-c	n the relevant nyl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation. tion 1 xture available	ingredients	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po est <u>Com</u> Ca Ca Ca Respira <u>Hand</u> No	Assification is based on Assification is based on Assification is based on Assification is based on Assification is based on Eye and polypherication Assification mass of tris(2-c Assification mass of tris(2-c	n the relevant nyl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation. tion 1 xture available	ingredients	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po est <u>Com</u> Ca Ca Ca Respira Hand No	Assification is based on Assification is based on Assification is based on Assification is based on Assification is based on Eye and polypherication Assification mass of tris(2-c Assification mass of tris(2-c	n the relevant nyl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation. tion 1 xture available	ingredients	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value	2-chloropropyl Remark
Cla po rea est Con Ca Ca Ca Ma Respira Na Cla	Assification is based on Assification is based on Assification is based on Assification is based on Assification is based on Eye and polypherication Assification mass of tris(2-c Assification mass of tris(2-c	n the relevant nyl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation. tion 1 xture available	ingredients	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit	determination Literature study Literature study Literature study Literature study chloro-1-methylethyl Value determination Experimental value Experimental value	2-chloropropyl Remark
Cla po rea est Con Ca Ca Ca Ma Respira Na Cla	A sistification is based on the sistification is based on the second sec	n the relevant nyl isocyanate Result rritating; category 2 rritating; category 2 rritating; GTOT SE cat.3 chloropropyl) p cid, 2-chloro-1 Result Not irritating Not irritating ation. rritation. tion 1 xture available	ingredients	chloro-1-methyleth loropropyl) ester Exposure time 24 h	yl) phosphate and p Time point 7 days	phosphoric acid, bis(2- Species Rabbit Rabbit	determination Literature study Literature study Literature study Literature study Literature study Literature study Chloro-1-methylethyl Value determination Experimental value Experimental value Experimental value 07-08-16	2-chloropropyl Remark

polymethylene polyp		cyanate					1				i
Route of exposure	Result		Method		Exposu	re time	Observation time point	Species	Value det	ermination	Remark
Skin	Sensitizi category								Literature	study	
Inhalation	Sensitizi category	U .							Literature	study	
reaction mass of tris(phosphate and pho	sphoric acid, bis	s(2-chloro-1-r	methylethyl) 2-chloropropyl
ester and phosphoric Route of exposure		hloro-1-	Method		Exposu		Observation time	Species	Value det	ermination	Pomark
		itizing			слрози		point				Kennark
Skin Conclusion	Not sens	atizing	OECD 429					Mouse (female) Experimer		
May cause an allergio May cause allergy or ecific target organ toxic Hand Held Expanding Fo No (test)data on the m	asthma s : ity : <u>am</u>	ymptom	ns or breathing	; difficulti	ies if inh	aled.			5		
Classification is based			0								
polymethylene polyp Route of exposu			Nethod	Value		Organ	Effect	Exposure tim	ie Speci	es	Value determination
Inhalation				STOT R	E cat.2						Literature study
reaction mass of tris(tris(2-ch	loro-1-n		phosphate and pho	sphoric acid, bis	s(2-chloro-1-r	nethylethyl	
ester and phosphoric	<u>cacid, 2-c</u>	hloro-1-	<u>methylethyl bi</u>	is(2-chlor		<u>) ester</u>					-
Route of exposu			/lethod	Value	11	Organ	Effect	Exposure tim			Value determination
Oral (diet)	NOAEL	t	ubchronic oxicity test	171 mg bw/day			No effect	13 weeks (da		emale)	Experimental value
Oral (diet)	LOAEL	t	ubchronic oxicity test	52 mg/l bw/day	, The second sec	Liver	Weight gain	13 weeks (da			Experimental value
Inhalation	Dose le	evel		0.586 m	ng/Lair		No effect		Mous	se (male)	Experimental
(vapours) <u>Conclusion</u> May cause damage to Not classified as sub- Not classified as sub-	chronical	ly toxic i	n contact with	-	exposu	re if inhaled					value
Conclusion May cause damage to Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(chronical chronical <u>am</u> mixture a 2-chlorog	ly toxic i ly toxic i vailable propyl) p	n contact with f swallowed	skin tris(2-ch	loro-1-n	nethylethyl)		psphoric acid, bis	s(2-chloro-1-r	nethylethyl	
Conclusion May cause damage to Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric	chronical chronical <u>am</u> mixture a 2-chlorog	ly toxic i ly toxic i vailable propyl) p hloro-1-	n contact with f swallowed <u>hosphate and</u> <u>methylethyl bi</u>	skin tris(2-ch	loro-1-n ropropyl	nethylethyl)) ester	phosphate and pho		s(2-chloro-1-r) 2-chloropropyl
Conclusion May cause damage to Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result	chronical chronical <u>am</u> mixture a <u>2-chlorop</u> <u>cacid, 2-c</u>	ly toxic i ly toxic i vailable propyl) p hloro-1- Met	n contact with f swallowed hosphate and methylethyl bi thod	skin tris(2-ch	loro-1-n ropropyl	nethylethyl)	phosphate and pho	sphoric acid, bis	s(2-chloro-1-r	Value dete) 2-chloropropyl
Conclusion May cause damage to Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric	chronical chronical mixture a <u>2-chloror</u> acid, 2-c etabolic ive withou	ly toxic i ly toxic i vailable propyl) p hloro-1- Mei OEC	n contact with f swallowed <u>hosphate and</u> <u>methylethyl bi</u>	skin tris(2-ch	loro-1-n ropropyl	<u>nethylethyl))) ester</u> Test substr <i>a</i>	phosphate and pho		s(2-chloro-1-r) 2-chloropropyl
Conclusion May cause damage to Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with me activation, negati	am mixture a 2-chlorop cacid, 2-cc etabolic ive withou ion r metabol ve with	ly toxic i ly toxic i vailable propyl) p hloro-1- Mei oEC	n contact with f swallowed hosphate and methylethyl bi thod	skin tris(2-ch	loro-1-n	<u>hethylethyl)) ester</u> Test substr a Rat liver cell	phosphate and pho		s(2-chloro-1-r	Value dete) <u>2-chloropropyl</u> rmination tal value
Conclusion May cause damage to Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with me activation, negati metabolic activat Negative without activation, positiv	am mixture a 2-chlorop cacid, 2-cc etabolic ive withou ion r metabol ve with	ly toxic i ly toxic i vailable propyl) p hloro-1- Mei oEC	n contact with f swallowed <u>hosphate and</u> <u>methylethyl bi</u> thod CD 482	skin tris(2-ch	loro-1-n	<u>hethylethyl))) ester</u> Test substra Rat liver cell Mouse (lym	phosphate and pho ite E		s(2-chloro-1-r	Value dete Experimen) 2-chloropropyl rmination tal value
Conclusion May cause damage to Not classified as sub- Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with out activation, negative metabolic activat Negative without activation, positive metabolic activat utagenicity (in vivo) Hand Held Expanding Fo No (test)data on the Judgement is based of reaction mass of tris(chronical chronical mixture a <u>2-chlorop</u> acid, 2-c etabolic ve withou ion metabol <i>ve</i> with ion <u>am</u> mixture a on the rel <u>2-chlorop</u>	vailable propyl) p hloro-1- Me ut ic OEC vailable evant in propyl) p	n contact with f swallowed <u>hosphate and</u> <u>methylethyl bi</u> thod CD 482 CD 476 gredients thosphate and	skin tris(2-ch s(2-chlor tris(2-ch	loro-1-n	<u>nethylethyl)</u>) <u>ester</u> Test substra Rat liver cell Mouse (lym cells)	phosphate and pho ite E s phoma L5178Y	iffect		Value dete Experimen Experimen) <u>2-chloropropyl</u> ermination tal value tal value
Conclusion May cause damage to Not classified as sub- Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with me activation, negati metabolic activat Negative without activation, positive metabolic activat utagenicity (in vivo) Hand Held Expanding Fo No (test)data on the Judgement is based of reaction mass of tris(ester and phosphoric	chronical chronical mixture a <u>2-chlorop</u> acid, 2-c etabolic ve withou ion metabol <i>ve</i> with ion <u>am</u> mixture a on the rel <u>2-chlorop</u>	vailable propyl) p hloro-1- Me ut ic OEC vailable evant in propyl) p	n contact with f swallowed <u>hosphate and</u> <u>methylethyl bi</u> thod CD 482 CD 476 CD 476	skin tris(2-ch s(2-chlor tris(2-ch	loro-1-n opropy	<u>nethylethyl)</u> <u>) ester</u> Test substra Rat liver cell Mouse (lym cells) <u>nethylethyl)) ester</u>	phosphate and pho te E s phoma L5178Y	iffect	s <u>(2-chloro-1-r</u>	Value dete Experimen Experimen) 2-chloropropyl ermination tal value tal value
Conclusion May cause damage to Not classified as sub- Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with out activation, negative metabolic activat Negative without activation, positive metabolic activat utagenicity (in vivo) Hand Held Expanding Fo No (test)data on the Judgement is based of reaction mass of tris(ester and phosphoric Result	chronical chronical mixture a <u>2-chlorop</u> acid, 2-c etabolic ve withou ion metabol <i>ve</i> with ion <u>am</u> mixture a on the rel <u>2-chlorop</u>	vailable propyl) p hloro-1- Me ut ic OEC vailable evant in propyl) p	n contact with f swallowed <u>hosphate and</u> <u>methylethyl bi</u> thod CD 482 CD 476 CD 476 CD 476 <u>methylethyl bi</u> <u>Method</u>	skin tris(2-ch s(2-chlor tris(2-ch	loro-1-n opropy	<u>nethylethyl)</u>) <u>ester</u> Test substra Rat liver cell Mouse (lym cells)	phosphate and pho te E s phoma L5178Y phosphate and pho	iffect sphoric acid, bis	s(2-chloro-1-r Drgan	Value dete Experimen Experimen methylethyl) 2-chloropropyl ermination tal value tal value) 2-chloropropyl ue determination
Conclusion May cause damage to Not classified as sub- Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with me activation, negati metabolic activat Negative without activation, positive metabolic activat utagenicity (in vivo) Hand Held Expanding Fo No (test)data on the Judgement is based of reaction mass of tris(ester and phosphoric	chronical chronical mixture a <u>2-chlorop</u> acid, 2-c etabolic ve withou ion metabol <i>ve</i> with ion <u>am</u> mixture a on the rel <u>2-chlorop</u>	vailable propyl) p hloro-1- Me ut ic OEC vailable evant in propyl) p	n contact with f swallowed <u>hosphate and</u> <u>methylethyl bi</u> thod CD 482 CD 476 CD 476	skin tris(2-ch s(2-chlor tris(2-ch	loro-1-n opropy	<u>nethylethyl)</u> <u>) ester</u> Test substra Rat liver cell Mouse (lym cells) <u>nethylethyl)) ester</u>	phosphate and pho te E s phoma L5178Y	iffect sphoric acid, bis	s <u>(2-chloro-1-r</u>	Value dete Experimen Experimen methylethyl) 2-chloropropyl ermination tal value tal value
Conclusion May cause damage to Not classified as sub- Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with me activation, negati metabolic activat Negative without activation, positiv metabolic activat Negative without activation, positiv metabolic activat Negative without activation, positiv metabolic activat Negative without activation, positiv metabolic activat Negative without activation positiv metabolic activat Negative without activation positiv metabolic activat Negative without Sub (test)data on the Judgement is based of reaction mass of tris(ester and phosphoric Result Negative Conclusion Not classified for mutagemetal Not classified for mutagemetal	chronical chronical mixture a <u>2-chlorop</u> cacid, 2-c etabolic ve withou ion metabol ve with ion <u>am</u> mixture a on the rel <u>2-chlorop</u> cacid, 2-c	vailable propyl) p hloro-1- Mei orcopyl) orco-1- ic OEC ut occo vailable evant in, propyl) p hloro-1-	n contact with f swallowed hosphate and methylethyl bi thod CD 482 CD 476 CD 476 CD 476 Method OECD 474	skin tris(2-ch s(2-chlor tris(2-ch	loro-1-n opropy	<u>nethylethyl)</u> <u>) ester</u> Test substra Rat liver cell Mouse (lym cells) <u>nethylethyl)) ester</u>	phosphate and pho te E s phoma L5178Y phosphate and pho	iffect sphoric acid, bis	s(2-chloro-1-r Drgan	Value dete Experimen Experimen methylethyl) 2-chloropropyl ermination tal value tal value) 2-chloropropyl ue determination
Conclusion May cause damage to Not classified as sub- Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative without activation, negati metabolic activat Negative without activation, positive metabolic activat utagenicity (in vivo) Hand Held Expanding Fo No (test)data on the Judgement is based of reaction mass of tris(ester and phosphoric Result Negative	chronical chronical mixture a <u>2-chlorop</u> cacid, 2-c etabolic ve withou ion metabol ve with ion <u>am</u> mixture a on the rel <u>2-chlorop</u> cacid, 2-c	vailable propyl) p hloro-1- Mei orcopyl) orco-1- ic OEC ut occo vailable evant in, propyl) p hloro-1-	n contact with f swallowed hosphate and methylethyl bi thod CD 482 CD 476 CD 476 CD 476 Method OECD 474	skin tris(2-ch s(2-chlor tris(2-ch	loro-1-n opropy	<u>nethylethyl)</u> <u>) ester</u> Test substra Rat liver cell Mouse (lym cells) <u>nethylethyl)) ester</u>	phosphate and pho te E s phoma L5178Y phosphate and pho	iffect sphoric acid, bis	s(2-chloro-1-r Drgan	Value dete Experimen Experimen methylethyl) 2-chloropropyl ermination tal value tal value) 2-chloropropyl ue determination
Conclusion May cause damage to Not classified as sub- Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with me activation, negati metabolic activat Negative without activation, positiv metabolic activat Negative without activation, positiv metabolic activat Negative without activation, positiv metabolic activat Negative without activation, positiv metabolic activat Negative without activation positiv metabolic activat Negative without activation positiv metabolic activat Negative without Sub (test)data on the Judgement is based of reaction mass of tris(ester and phosphoric Result Negative Conclusion Not classified for mutagemetal Not classified for mutagemetal	chronical chronical mixture a <u>2-chlorop</u> cacid, <u>2-c</u> etabolic ve withou ion metabol <i>ve</i> with ion mixture a on the rele <u>2-chlorop</u> cacid, <u>2-c</u> tagenic on	ly toxic i ly toxic i vailable propy() p hloro-1- Mei oropy() p hloro-1- ic OEC	n contact with f swallowed <u>methylethyl bi</u> thod CD 482 CD 476 CD 476	skin tris(2-ch s(2-chlor tris(2-ch	loro-1-n opropy	<u>nethylethyl)</u> <u>) ester</u> Test substra Rat liver cell Mouse (lym cells) <u>nethylethyl)) ester</u>	phosphate and pho te E s phoma L5178Y phosphate and pho	iffect sphoric acid, bis	s(2-chloro-1-r Drgan	Value dete Experimen Experimen methylethyl) 2-chloropropyl ermination tal value tal value) 2-chloropropyl ue determination
Conclusion May cause damage to Not classified as sub- Not classified as sub- Not classified as sub- utagenicity (in vitro) Hand Held Expanding Fo No (test)data on the reaction mass of tris(ester and phosphoric Result Negative with me activation, negati metabolic activat Negative without activation, positis metabolic activat Negative without activation, positis metabolic activat Negative without activation, positis metabolic activat Negative without activation positis metabolic activat Negative of the Negative of the Judgement is based of reaction mass of tris(ester and phosphoric Result Negative Conclusion Not classified for mutagenicity Hand Held Expanding Fo	chronical chronical mixture a <u>2-chlorop</u> cacid, <u>2-c</u> etabolic ve withou ion metabol <i>ve</i> with ion mixture a on the rele <u>2-chlorop</u> cacid, <u>2-c</u> tagenic on	ly toxic i ly toxic i vailable propy() p hloro-1- Mei oropy() p hloro-1- ic OEC	n contact with f swallowed <u>methylethyl bi</u> thod CD 482 CD 476 CD 476	skin tris(2-ch s(2-chlor tris(2-ch	loro-1-n opropy	<u>nethylethyl)</u> <u>) ester</u> Test substra Rat liver cell Mouse (lym cells) <u>nethylethyl)) ester</u>	phosphate and pho te E s phoma L5178Y phosphate and pho Test substra Mouse (mai	iffect sphoric acid, bis	s(2-chloro-1-r Organ Bone marrow	Value dete Experimen Experimen methylethyl) <u>2-chloropropyl</u> ermination tal value tal value) <u>2-chloropropyl</u> ue determinatior

Cla	ssification is ba	ased on the rela	evant ingredients						
ро	ymethylene po	olyphenyl isocy	anate						
	Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	- J	Value determination
	Unknown			category 2					Literature study
_			opyl) phosphate ar oro-1-methylethyl		<mark>methylethyl) phospha</mark> (I) ester	ate and phosphori	c acid, bis(2-chloro	-1-methylethyl) 2	2-chloropropyl
	Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	- J	Value determination
		Parameter	Method	Value	Exposure time	Species	Effect	U U	
	exposure	Parameter	Method	Value	Exposure time	Species	Effect	U U	determination
	exposure Inhalation	Parameter	Method	Value	Exposure time	Species	Effect		determination Data waiving
_	exposure Inhalation Dermal		Method	Value	Exposure time	Species	Effect		determination Data waiving Data waiving

Reproductive toxicity

Hand Held Expanding Foam

No (test)data on the mixture available

Judgement is based on the relevant ingredients

reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value
								determination
Developmental toxicity	LOAEL	OECD 416	<mark>99 mg/</mark> kg		Rat (female)	Embryotoxicity		Experimental
			<mark>bw/da</mark> y					value
Effects on fertility	LOAEL	OECD 416	99 mg/kg		Rat	Weight changes	Female	Experimental
			bw/day		(male/female)		reproductive	value
							organ	

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

Hand Held Expanding Foam No (test)data on the mixture available

Chronic effects from short and long-term exposure

Hand Held Expanding Foam

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Feeling of weakness. Itching. Skin rash/inflammation. May stain the skin. Dry skin. Coughing. Possible inflammation of the respiratory tract. Respiratory difficulties.

SECTION 12: Ecological information

12.1. Toxicity

Hand Held Expanding Foam

No (test)data on the mixture available

Judgement of the mixture is based on the relevant ingredients

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determinatio
Acute toxicity other aquatic organisms	LC50		> 1000 mg/l	96 h				Literature study
Toxicity aquatic micro- organisms	EC50	OECD 209	> 100 mg/l		Activated sludge			Literature study
n for revision: 2;3						n date: 2007-1	20.16	
						vision: 2018-0		
on number: 0403					Product n	umber: 45261		9/1

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determina
Acute toxicity fishes	LC50	Other	56.2 mg/l	96 h	Brachydanio rerio	Static system		Experimental val GLP
Acute toxicity crustacea	LC50		131 mg/l	48 h		Static system	Fresh water	Experimental val
Toxicity algae and other aquatic plants	ErC50	OECD 201	82 mg/l	72 h	Pseudokirchnerie lla subcapitata	Static system	Fresh water	Experimental val
Long-term toxicity fish								Data waiving
Long-term toxicity aquatic crustacea	NOEC	OECD 202	32 mg/l	21 day(s)	Daphnia magna	Semi-static system	Fresh water	Experimental val
Toxicity aquatic micro- organisms	EC50	ISO 8192	784 mg/l	3 h	Activated sludge	Static system	Fresh water	Experimental val GLP
onclusion Not classified as dangerous for th 2.2. Persistence and degra polymethylene polyphenyl isocya Biodegradation water	dability	t according to	the criteria o	f Regulation (EC	C) No 1272/2008			
Method		Value		Dura	tion	Va	lue determina	tion
OECD 302C: Inherent Biodegr Modified MITI Test (II)	adability:	< 60 %					perimental val	
reaction mass of tris(2-chloroprop	ovl) phosphat	and tris(2-ch	loro-1-methy	ethyl) phospha	te and phosphoric a	rid, bis(2-chlo	ro-1-methylet	hyl) 2-chloropropy
ester and phosphoric acid, 2-chlo								
Biodegradation water								
Method		Value		Dura	tion	Va	lue determina	ition
OECD 301E: Modified OEC <mark>D S</mark>		14 %; GLP		28 da	ay(s)	Ex	perimental val	ue
Phototransformation air (DT50	air)							
Method		Value			. OH-radicals		lue determina	tion
AOPWIN v1.92		8.6 h		5000	00 /cm ³	Ca	lculated value	
Biodegradation soil		h		L		L.		
Method		Value		Dura	tion		lue determina	tion
						Da	ta waiving	
Half-life water (t1/2 water) Method		Value		Prim			lue determina	tion
		1		-	adation/mineralisat			
EU Method C.7		> 1 year(s)		Prim	ary degradation	Ex	perimental val	ue
Contains non readily biodegradab 2.3. Bioaccumulative pote d Held Expanding Foam	•	t(s)						
V	mark		Value		Temperature	N	/alue determi	nation
No	ot applicable (mixture)						
polymethylene polyphenyl isocya BCF fishes	nate							
	Val	ue	Duration	Spe	ecies		Value d	etermination
Parameter Method	1		Junation	Piso				re study
				r.13.				1
Parameter Method BCF Log Kow	ц							
BCF	Remark		Value		Temperature		Value dete	rmination
BCF C C C C C C C C C C C C C C C C C C	No data avai							
BCF Log Kow Method reaction mass of tris(2-chloroprop	No data avai oyl) phosphat	e and tris(2-ch	loro-1-methy			cid, bis(2-chlo		
BCF Log Kow Method reaction mass of tris(2-chloroproperture) ester and phosphoric acid, 2-chlo BCF fishes	No data avai oyl) phosphate ro-1-methylet	e and tris(2-ch hyl bis(2-chlor	loro-1-methy	r	te and phosphoric a	cid, bis(2-chlo	ro-1-methylet	hyl) 2-chloropropy
BCF Log Kow Method reaction mass of tris(2-chloroprop ester and phosphoric acid, 2-chlo BCF fishes Parameter Method	No data avai oyl) phosphate ro-1-methylet Val	e and tris(2-ch hyl bis(2-chlor ue	loro-1-methy opropyl) este	r Spe	te and phosphoric a	cid, bis(2-chlo	ro-1-methylet Value d	hyl) 2-chloropropy etermination
BCF Log Kow Method reaction mass of tris(2-chloroprop ester and phosphoric acid, 2-chlo BCF fishes Parameter BCF OECD 305	No data avai oyl) phosphate ro-1-methylet Val	e and tris(2-ch hyl bis(2-chlor	loro-1-methy opropyl) este	r Spe	te and phosphoric a	cid, bis(2-chlo	ro-1-methylet Value d	hyl) 2-chloropropy
BCF Log Kow Method reaction mass of tris(2-chloroprop ester and phosphoric acid, 2-chlo BCF fishes Parameter BCF OECD 305 Log Kow	No data avai pyl) phosphate ro-1-methylet Val	e and tris(2-ch hyl bis(2-chlor ue	loro-1-methyl opropyl) este Duration 6 week(s)	r Spe	te and phosphoric a ecies prinus carpio	cid, bis(2-chlo	ro-1-methylet Value d Experim	hyl) 2-chloropropy etermination ental value
BCF Log Kow Method reaction mass of tris(2-chloroprop ester and phosphoric acid, 2-chlo BCF fishes Parameter BCF OECD 305 Log Kow Method	No data avai oyl) phosphate ro-1-methylet Val	e and tris(2-ch hyl bis(2-chlor ue	loro-1-methyl copropyl) este Duration 6 week(s) Value	r Spe	te and phosphoric a ecies prinus carpio Temperature	cid, bis(2-chlo	Value d Experim	hyl) 2-chloropropy etermination ental value rmination
BCF Log Kow Method ester and phosphoric acid, 2-chlooprop ester and phosphoric acid, 2-chloo BCF fishes Parameter Method BCF OECD 305 Log Kow Method EU Method A.8	No data avai pyl) phosphate ro-1-methylet Val	e and tris(2-ch hyl bis(2-chlor ue	loro-1-methyl opropyl) este Duration 6 week(s)	r Spe	te and phosphoric a ecies prinus carpio	cid, bis(2-chlo	ro-1-methylet Value d Experim	hyl) 2-chloropropy etermination ental value rmination
BCF Log Kow Method reaction mass of tris(2-chloroprop ester and phosphoric acid, 2-chlo BCF fishes Parameter Method BCF OECD 305 Log Kow Method	No data avai oyl) phosphat ro-1-methylet Vali 0.8 Remark	e and tris(2-ch hyl bis(2-chlor ue - 14; Fresh	loro-1-methyl copropyl) este Duration 6 week(s) Value	r Spe	te and phosphoric a ecies prinus carpio Temperature	cid, bis(2-chlo	Value d Experim	hyl) 2-chloropropy etermination ental value rmination

12.4. Mobility in soil

reaction mass of tris(2-chloropropyl) phosphate and tris(2-chloro-1-methylethyl) phosphate and phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloropropyl ester and phosphoric acid, 2-chloro-1-methylethyl bis(2-chloropropyl) ester

(loc	g) Koc										
P	arameter					Method			Value		Value determination
lc	og Koc					EU Meth	od C.19		2.76		Experimental value
Per	cent distribution										
N	/lethod	Fractio	n air	Fraction biota	Fraction		Fraction soil	Fraction	water	Value determ	ination
					sediment	t					
N	/lackay level I	0.01 %		0 %	3.55 %		3.52 %	92.89 %		Read-across	

Conclusion

Contains component(s) with potential for mobility in the soil

12.5. Results of PBT and vPvB assessment

Due to insufficient data no statement can be made whether the component(s) fulfil(s) the criteria of PBT and vPvB according to Annex XIII of Regulation (EC) No 1907/2006.

12.6. Other adverse effects

Hand Held Expanding Foam

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997. Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).

08 05 01* (wastes not otherwise specified in 08: waste isocyanates).

16 05 04* (gases in pressure containers and discarded chemicals: gases in pressure containers (including halons) containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Recycle/reuse. Specific treatment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Do not discharge into drains or the environment.

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).

15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)	
14.1. UN number	
UN number	1950
14.2. UN proper shipping name	
Proper shipping name	Aerosols
14.3. Transport hazard class(es)	
Hazard identification number	
Class	2
Classification code	SF
14.4. Packing group	
Packing group	
Labels	2.1
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
on for revision: 2;3	Publication date: 2007-08-16
	Date of revision: 2018-01-09
sion number 0402	Due due traunche au 45261 11

Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
ail (RID) 14.1. UN number	
	4050
UN number	1950
14.2. UN proper shipping name	
Proper shipping name	Aerosols
14.3. Transport hazard class(es)	
Hazard identification number	23
Class	2
Classification code	5F
14.4. Packing group	
Packing group	
Labels	2.1
14.5. Environmental hazards	
Environmentally hazardo <mark>us substance mark</mark>	no
14.6. Special precautions for user	
Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for
	liquids. A package shall not weigh more than 30 kg. (gross mass)
land waterways (ADN)	
14.1. UN number	
UN number	1950
14.2. UN proper shipping name	
Proper shipping name	Aerosols
14.3. Transport hazard class(es)	
Class	2
Classification code	5F
14.4. Packing group	
Packing group	
Labels	2.1
	2.1
14.5. Environmental hazards	
Environmentally hazardous substance mark	no
14.6. Special precautions for user	
Special provisions	190
Special provisions	327
Special provisions	344
Special provisions	625
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for
	liquids. A package shall not weigh more than 30 kg. (gross mass)
a (IMDG/IMSBC)	
14.1. UN number	
UN number	1950
14.2. UN proper shipping name	
Proper shipping name	Aerosols
14.3. Transport hazard class(es)	
Class	2.1
14.4. Packing group	
Packing group	
Labels	2.1
14.5. Environmental hazards	
Marine pollutant	
Marine pollutant	80
Environmentally hazardo <mark>us substance mark</mark>	no
Environmentally hazardous substance mark 14.6. Special precautions for user	
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions	63
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provisions	63 190
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provisions Special provisions	63 190 277
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provisions	63 190
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provisions Special provisions	63 190 277
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions	63 190 277 327
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provi	63 190 277 327 344
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provi	63 190 277 327 344 381 959
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provi	63 190 277 327 344 381 959 Combination packagings: not more than 1 liter per inner packaging for
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provi	63 190 277 327 344 381 959
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provi	63 190 277 327 344 381 959 Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provi	63 190 277 327 344 381 959 Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass) Publication date: 2007-08-16
Environmentally hazardous substance mark 14.6. Special precautions for user Special provisions Special provisions	63 190 277 327 344 381 959 Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code					
Annex II of MARPOL 73/78	Not applicable				
Air (ICAO-TI/IATA-DGR)					
14.1. UN number					
UN number	1950				
14.2. UN proper shipping na <mark>me</mark>					
Proper shipping name	Aerosols, flammable				
14.3. Transport hazard class(es)					
Class	2.1				
14.4. Packing group					
Packing group					
Labels	2.1				
14.5. Environmental hazards					
Environmentally hazardous substance mark	no				
14.6. Special precautions for user					
Special provisions	A145				
Special provisions	A167				
Special provisions	A802				
Limited quantities: maximum net quantity per packaging	30 kg G				

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content		Remark		
16.26 % - 23.01 %				
156.58 g/l - 221.55 g/l				

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market erous substances, mixtures and articles and use of certain dar

and use of certain dan	igerous	substances, mixtures and artic	163.	
		Designation of the substance, of the substances or of the mixture	e group of	Conditions of restriction
polymethylene polyphenyl isocyanat		Liquid substances or mixtures which		1. Shall not be used in:
reaction mass of tris(2-chloropropyl)		regarded as dangerous in accordance		 ornamental articles intended to produce light or colour effects by means of different
phosphate and tris(2-chloro-1-methyl		Directive 1999/45/EC or are fulfilling		phases, for example in ornamental lamps and ashtrays,
phosphate and phosphoric acid, bis(2-		criteria for any of the following haza		— tricks and jokes,
chloro-1-methylethyl) 2-chloropropyl		or categories set out in Annex I to R	egulation	 games for one or more participants, or any article intended to be used as such, even with
and phosphoric acid, 2-chloro-1-meth		(EC) No 1272/2008:		ornamental aspects,
bis(2-chloropropyl) ester		(a) hazard classes 2.1 to 2.4, 2.6 and	2.7, 2.8	Articles not complying with paragraph 1 shall not be placed on the market.
		types A and B, 2.9, 2.10, 2.12, 2.13 c	ategories 1	3. Shall not be placed on the market if they contain a colouring agent, unless required for
		and 2, 2.14 categories 1 and 2, 2.15	types A to	fiscal reasons, or perfume, or both, if they:
		F;		 can be used as fuel in decorative oil lamps for supply to the general public, and,
		(b) hazard classes 3.1 to 3.6, 3.7 adv	erse	 present an aspiration hazard and are labelled with R65 or H304,
		effects on sexual function and fertili	ty or on	4. Decorative oil lamps for supply to the general public shall not be placed on the market
		development, 3.8 effects other thar	narcotic	unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopte
		effects, 3.9 and 3.10;		by the European Committee for Standardisation (CEN).
		(c) hazard class 4.1;		5. Without prejudice to the implementation of other Community provisions relating to the
		(d) hazard class 5.1.		classification, packaging and labelling of dangerous substances and mixtures, suppliers sha
				ensure, before the placing on the market, that the following requirements are met:
				a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visible
				legibly and indelibly marked as follows: "Keep lamps filled with this liquid out of the reach
				children"; and, by 1 December 2010, "Just a sip of lamp oil — or even sucking the wick of
				lamps — may lead to life- threatening lung damage";
				b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public a
				legibly and indelibly marked by 1 December 2010 as follows: "Just a sip of grill lighter may
				lead to life threatening lung damage";
				c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general
				public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010.
				6. No later than 1 June 2014, the Commission shall request the European Chemicals Agence
				to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to
				ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304,
				intended for supply to the general public.
				7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter
				fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter,
				provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the
				competent authority in the Member State concerned. Member States shall make those da
				available to the Commission.'
polymethylene polyphenyl isocyanat	te	Methylenediphenyl diisocyanate (M	IDI)	1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures
, , ,, p, p, booquilat		including the following specific isom		concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general
		Methylenediphenyl diisocyanate; 2,		public, unless suppliers shall ensure before the placing on the market that the packaging:
		Methylenediphenyl diisocyanate; 2,		passion and a suppliers shall ensure before the placing on the market that the packaging.
		ivietnyieneupnenyi uisocyanace, 2,	-	
son for revision: 2;3				Publication date: 2007-08-16
,-				Date of revision: 2018-01-09
				Date of revision, 2010-01-03
ision number: 0403				Product number: 45261 13 / 15
131011 110111021.0403				PTOUULL HUITIDEL. 45201 13 / 15

	Hand Held	Expanding Foam
	Methylenediphenyl diisocyanate	 (a) contains protective gloves which comply with the requirements of Council Directive 89/686/EEC; (b) is marked visibly, legibly and indelibly as follows, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and microsecome.
		and mixtures: "— Persons already sensitised to diisocyanates may develop allergic reactions when using this product. — Persons suffering from asthma, eczema or skin problems should avoid contact, including
		dermal contact, with this product. — This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used. 2. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives.
<u>National legislation Belgium</u> Hand Held Expanding Foam No data available		
National legislation The Netherla	<u>nds</u>	
<u>Hand Held Expanding Foam</u> Waterbezwaarlijkheid	Z (2)	
No data available		
<u>polymethylene polyphenyl isc</u> Catégorie cancérogène	cyanate 4,4'-Diisocyanate de diphénylme	áthana: C2
National legislation Germany		
Hand Held Expanding Foam		
WGK	Stoffe (VwVwS) of 27 July 2005 (AwSV) of 18 April 2017	based on the components in compliance with Verwaltungsvorschrift wassergefährdender (Anhang 4) and Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen
polymethylene polyphen <mark>yl iso</mark> TA-Luft	<u>cyanate</u> 5.2.5; I	
TRGS900 - Risiko der Fruchtschädigung	und des biologischen Grenzwert	siko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des
Sensibilisierende Stoffe	4,4'-Methylendiphenyldiisocyan Zielorganen Allergien auslösend	at; Sah; Atemwegssensibilisierende Stoffe Und Hautsensibilisierende Stoffe, an beiden
TRGS905 - Krebserzeugend	Techn. ("Polymeres") MDI (pMD	DI) (in Form atembarer Aerosole, A-Fraktion); 2
TRGS905 - Erbgutverändern TRGS905 - Fruchtbarkeitsgefährdend		DI) (in Form atembarer Aerosole, A-Fraktion); - DI) (in Form atembarer Aerosole, A-Fraktion); -
TRGS905 - Fruchtschädigene Hautresorptive Stoffe	 Techn. ("Polymeres") MDI (pMD 4,4'-Methylendiphenyldiisocyan pMDI (als MDI berechnet); H; Ha 	
	propyl) phosphate and tris(2-chloro	p-1-methylethyl) phosphate and phosphoric acid, bis(2-chloro-1-methylethyl) 2-chloroprop
ester and phosphoric acid, 2-c	hloro-1-methylethyl bis(2-chloropr 5.2.5	ropyl) ester
National legislation United Kingd Hand Held Expanding Foam No data available	<u>om</u>	
polymethylene polyphenyl iso Skin Sensitisation	Isocyanates, all (as -NCO) Excep	
Respiratory sensitisation	Isocyanates, all (as -NCO) Excep	ot methyl isocyanate; Sen
<u>Other relevant data</u> <u>Hand Held Expanding Foam</u> No data available		
polymethylene polyphenyl iso IARC - classification	<u>cyanate</u> 3; Polymethylene polyphenyl iso	ocyanate
15.2. Chemical safety assess		
eason for revision: 2;3		Publication date: 2007-08-16 Date of revision: 2018-01-09
evision number: 0403		Product number: 45261 14 / 15

	папа нег	и схран	ang roam	
CTION 16: Oth	er information			
H220 Extremely H222 Extremely	atements referred to under heading 3: flammable gas. flammable aerosol. ed container: May burst if heated.			
	gas under pressure; may explode if heated. swallowed.			
H319 Causes se H332 Harmful if		difficultios if inholod		
H335 May cause H351 Suspected	e allergy or asthma symptoms or breathing o e respiratory irritation. I of causing cancer. e damage to organs through prolonged or re		haled.	
(*) CLP (EU-GHS)	INTERNAL CLASSIFICATION BY BIG Classification, labelling and packaging	g (Globally Harmonise	d System in Europe)	
DMEL DNEL EC50	Derived Minimal Effect Level Derived No Effect Level Effect Concentration 50 %			
ErC50 LC50 LD50	EC50 in terms of reduction of growth Lethal Concentration 50 % Lethal Dose 50 %	rate		
NOAEL NOEC OECD	No Observed Adverse Effect Level No Observed Effect Concentration Organisation for Economic Co-operat	ion and Development		
PBT PNEC STP	Persistent, Bioaccumulative & Toxic Predicted No Effect Concentration Sludge Treatment Process			
vPvB	very Persistent & very Bioaccumulati	ve		
Specific concentration	on limits CLP			
polymethylene p	olyphenyl isocyanate	C≥5%	Eye Irrit 2;H319	analogous to Annex VI
		C≥5%	Skin Irrit 2;H315	analogous to Annex VI
		0.040	D C 111221	

polymethylene polyphen <mark>yl isocyanate</mark>	C≥5%	Eye Irrit 2;H319	analogous to Annex VI
	C ≥ 5 %	Skin Irrit 2;H315	analogous to Annex VI
	C ≥ 0.1 %	Resp Sens 1;H334	analogous to Annex VI
	C ≥ 5 %	STOT SE 3;H335	analogous to Annex VI

The information in this safety data sheet is based on data and samples provided to BIG. The sheet was written to the best of our ability and according to the state of knowledge at that time. The safety data sheet only constitutes a guideline for the safe handling, use, consumption, storage, transport and disposal of the substances/preparations/mixtures mentioned under point 1. New safety data sheets are written from time to time. Only the most recent versions may be used. Old versions must be destroyed. Unless indicated otherwise word for word on the safety data sheet, the information does not apply to substances/preparations/mixtures in purer form, mixed with other substances or in processes. The safety data sheet offers no quality specification for the substances/preparations/mixtures in question. Compliance with the instructions in this safety data sheet does not release the user from the obligation to take all measures dictated by common sense, regulations and recommendations or which are necessary and/or useful based on the real applicable circumstances. BIG does not guarantee the accuracy or exhaustiveness of the information provided and cannot be held liable for any changes by third parties. This safety data sheet has been elaborated for use within the European Union, Switzerland, Iceland, Norway and Lichtenstein. It may be consulted in other countries, where local legislation with regards to the set-up of safety data sheets will take precedence. It is your obligation to verify and apply such local legislation. Use of this safety data sheet is subject to the licence and liability limiting conditions as stated in your BIG licence agreement or when this is failing the general conditions of BIG. All intellectual property rights to this sheet are the property of BIG and its distribution and reproduction are limited. Consult the mentioned agreement/conditions for details.

Reason for revision: 2;3 Publication date: 2007-08-16 Date of revision: 2018-01-09		
	Reason for revision: 2;3	