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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revised on / Version: 03.07.2015 / 0002

Replaces revision of / Version: 12.06.2014 / 0001

Valid from: 03.07.2015 PDF print date: 03.07.2015

2K-Foam 400 ml Art.: 9076939

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

2K-Foam 400 ml Art.: 9076939

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

Adhesive sealant

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

(GB)

BTI Befestigungstechnik GmbH & Co. KG, Salzstr. 51, 74653 Ingelfingen, Germany

Phone: +49 7940 141 256, Fax: +49 7940 141 9256

Stefan.Haug@bti.de, www.bti.de

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (BRC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Acute Tox.	4	H332-Harmful if inhaled.
Eye Irrit.	2	H319-Causes serious eye irritation.
STOT SE	3	H335-May cause respiratory irritation.
Skin Irrit.	2	H315-Causes skin irritation.
Resp. Sens.	1	H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin Sens.	1	H317-May cause an allergic skin reaction.
STOT RE	2	H373-May cause damage to organs through prolonged or repeated exposure.
Carc.	2	H351-Suspected of causing cancer.
Aerosol	1	H222-Extremely flammable aerosol.
Aerosol	1	H229-Pressurised container: May burst if heated.





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2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H332-Harmful if inhaled. H319-Causes serious eye irritation. H335-May cause respiratory irritation. H315-Causes skin irritation. H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317-May cause an allergic skin reaction. H373-May cause damage to organs through prolonged or repeated exposure. H351-Suspected of causing cancer. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P201-Obtain special instructions before use. 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 vapours or spray. P280-Wear protective gloves/protective clothing and eye protection/face protection. P284-Wear respiratory protection.

P304+P340-IF INHALED: Remove person to fresh air and keep comfortable for breathing. P308+P313-IF exposed or concerned: Get medical advice/attention.

P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 $^{\circ}\text{C}.$

EUH204-Contains isocyanates. May produce an allergic reaction.

Without adequate ventilation, formation of explosive mixtures may be possible.

Diphenylmethanediisocyanate, isomeres and homologues

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

REGULATION (EC) No 648/2004

n.a.

SECTION 3: Composition/information on ingredients

PU-foam

3.1 Substance

n.a.

3.2 Mixture

Diphenylmethanediisocyanate, isomeres and homologues	
Registration number (REACH)	





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Index	
EINECS, ELINCS, NLP	-
CAS	9016-87-9
content %	25-50
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H332
(CLP)	Eye Irrit. 2, H319
	STOT SE 3, H335
	Skin Irrit. 2, H315
	Resp. Sens. 1, H334
	Skin Sens. 1, H317
	Carc. 2, H351
	STOT RE 2, H373

Tris(2-chlorisopropyl)phosphate	
Registration number (REACH)	
Index	
EINECS, ELINCS, NLP	237-158-7
CAS	13674-84-5
content %	10-<25
Classification according to Regulation (EC) 1272/2008	Acute Tox. 4, H302
(CLP)	

Dimethyl ether	Substance for which an EU exposure limit
	value applies.
Registration number (REACH)	01-2119472128-37-XXXX
Index	603-019-00-8
EINECS, ELINCS, NLP	204-065-8
CAS	115-10-6
content %	1-10
Classification according to Regulation (EC) 1272/2008	Flam. Gas 1, H220
(CLP)	

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16. The substances named in this section are given with their actual, appropriate classification! For substances that are listed in appendix VI, table 3.1/3.2 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

If the person is unconscious, place in a stable side position and consult a doctor.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.



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Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

Never pour anything into the mouth of an unconscious person!

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

The following may occur:

In case of sensitivity, concentrations below the limit value may already result in asthmatic symptoms.

Watering eyes

Coughing

Irritation of the respiratory tract

Irritant to mucosa of the nose and throat

Respiratory distress

Oedema of the lungs

Dizziness

Headaches

Drying of the skin.

Dermatitis (skin inflammation)

Discoloration of the skin

Other dangerous properties cannot be ruled out.

In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO₂

Foam

Extinction powder

Water jet spray

Unsuitable extinguishing media

None known

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Oxides of phosphorus

Hydrocyanic acid (hydrogen cyanide)

Hydrogen chloride

Danger of bursting (explosion) when heated

Explosive vapour/air mixture

Dangerous vapours heavier than air.

In case of spreading near the ground, flashback to distance sources of ignition is possible.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire





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Full protection, if necessary

Cool container at risk with water.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.

Ensure sufficient supply of air.

Avoid inhalation, and contact with eyes or skin.

6.2 Environmental precautions

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.

Active substance:

Allow product to harden.

Pick up mechanically and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid inhalation of the vapours.

Keep away from sources of ignition - Do not smoke.

Take measures against electrostatic charging, if appropriate.

Do not use on hot surfaces.

Avoid contact with eyes or skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

No contact with products of this type in case of allergies, asthma und chronic respiratory tract disorders.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities

Keep out of access to unauthorised individuals.

Not to be stored in gangways or stair wells.

Observe special regulations for aerosols!

Do not store with oxidizing agents.

Do not store with alkalis.

Do not store with acids.



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Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung").

Keep protected from direct sunlight and temperatures over 50°C.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Chemical Name	Diphenylmeth	anediisocyanate,	isomeres	and homologues		Content %:25-50
WEL-TWA: 0,02 mg/m3 (Isocyanates,	WEL-STEL: (0,07 mg/n	n3 (Isocyanates,		
all (as -NCO))		all (as -NCO))				
Monitoring procedures:	-					
BMGV: 1 µmol urinary dia	amine/mol creati	inine in urine		Other information:	Sen	(Isocyanates,
(Isocyanate, post task)				all (as -NCO))		
(B)						Content %:1-
Chemical Name	Dimethyl ethe	r				10
WEL-TWA: 400 ppm (766	mg/m3)	WEL-STEL:	500 ppm ((958 mg/m3)		
(WEL), 1000 ppm (1920 mg		(WEL)				
Monitoring procedures:	- (Compur - KITA-1	23 S (549	129)		
BMGV:				Other information:		
© Chemical Name	Isobutane					Content %:
WEL-TWA: 1000 ppm (A	CGIH)	WEL-STEL: -				
Monitoring procedures:	- (Compur - KITA-1	13 SB(C)	(549 368)		
BMGV:				Other information:		
® Chemical Name	Propane					Content %:
WEL-TWA: 1000 ppm (A	CGIH)	WEL-STEL: -				
Monitoring procedures:	- (Compur - KITA-1	25 SA (54	49 954)		
BMGV:				Other information:		

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

Dimethyl ether										
Area of application	Exposure route /	Effect on health	Descript	Value	Unit	Note				
	Environmental		or							
	compartment									
Workers / employees	Human - inhalation	Long term,	DNEL	1894	mg/m3					
		systemic effects								





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Consumer	Human - inhalation	Long term, systemic effects	DNEL	471	mg/m3
	Environment -		PNEC	0,155	mg/l
	freshwater				
	Environment -		PNEC	0,681	mg/kg
	sediment, freshwater				
	Environment - soil		PNEC	0,045	mg/kg
	Environment -		PNEC	160	mg/l
	sewage treatment				
	plant				
	Environment - marine		PNEC	0,016	mg/l
	Environment - water,		PNEC	1,549	mg/l
	sporadic				
	(intermittent) release				
	Environment -		PNEC	0,069	mg/kg
	sediment, marine				

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:

Chemical resistant protective gloves (EN 374).

Recommended

Polyethylene

(LDPE)

Minimum layer thickness in mm:

0.025

Permeation time (penetration time) in minutes:

10

Protective hand cream recommended.

The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)





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Respiratory protection:

If OES or MEL is exceeded.

Filter A2 P2 (EN 14387), code colour brown, white

Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.

Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.

Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Aerosol, Substance: Liquid Colour: According to specification

Odour: Characteristic
Odour threshold: Not determined

pH-value: n.a.

Melting point/freezing point: Not determined Initial boiling point and boiling range: Not determined Flash point: Not determined Evaporation rate: Not determined Flammability (solid, gas): Not determined Lower explosive limit: Not determined Upper explosive limit: Not determined Vapour pressure: Not determined

Vapour density (air = 1): >1 (Vapours heavier than air.)

Density: n.a. Bulk density: n.a.

Solubility(ies): Organic solvents, Yes

Water solubility: Insoluble Partition coefficient (n-octanol/water): n.a.

Auto-ignition temperature: Not determined Decomposition temperature: Not determined

Viscosity: n.a.





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Explosive properties: Product is not explosive. Possible build up of

explosive/highly flammable vapour/air mixture.

Oxidising properties: No

9.2 Other information

Miscibility: Not determined
Fat solubility / solvent: Not determined
Conductivity: Not determined
Surface tension: Not determined
Solvents content: Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

Polymerisation possible

10.4 Conditions to avoid

See also section 7.

Heating, open flame, ignition sources

Pressure increase will result in danger of bursting.

10.5 Incompatible materials

Amines

Bases

Acids

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

Possibly more information on health effects, see Section 2.1 (classification).

2K-Foam 400 ml						
Art.: 9076939						
Toxicity / effect	Endp	Value	Unit	Organism	Test method	Notes
	oint					
Acute toxicity, by oral	ATE	>2000	mg/kg			calculated value
route:						
Acute toxicity, by						n.d.a.
dermal route:						
Acute toxicity, by	ATE	3,8	mg/l/4			calculated value,
inhalation:			h			Aerosol
Skin corrosion/irritation:						n.d.a.
Serious eye						n.d.a.
damage/irritation:						
Respiratory or skin						n.d.a.
sensitisation:						
Germ cell mutagenicity:						n.d.a.





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Carcinogenicity:	n.d.a.
Reproductive toxicity:	n.d.a.
Specific target organ	n.d.a.
toxicity - single	
exposure (STOT-SE):	
Specific target organ	n.d.a.
toxicity - repeated	
exposure (STOT-RE):	
Aspiration hazard:	n.d.a.
Symptoms:	n.d.a.
Other information:	Classification
	according to
	calculation
	procedure.

Toxicity / effect	Endp	Value	Unit	Organism	Test method	Notes
	oint					
Acute toxicity, by oral	LD50	>10000	mg/kg	Rat		
route:						
Acute toxicity, by oral	LD50	>2000	mg/kg	Rat	OECD 401	
route:					(Acute Oral	
					Toxicity)	
Acute toxicity, by oral	LD50	>5000	mg/kg	Rat		
route:						
Acute toxicity, by	LD50	>10000	mg/kg	Rabbit		
dermal route:						
Acute toxicity, by	LD50	>2000	mg/kg	Rabbit		
dermal route:						
Acute toxicity, by	LD50	>9400	mg/kg	Rabbit		
dermal route:						
Acute toxicity, by	LD50	>9400	mg/kg	Rabbit	OECD 402	
dermal route:					(Acute Dermal	
					Toxicity)	
Acute toxicity, by	LC50	0,31	mg/l/4	Rat	OECD 403	Aerosol
inhalation:			h		(Acute Inhalation	
					Toxicity)	
Skin corrosion/irritation:						Irritant
Skin corrosion/irritation:				Rabbit	OECD 404	Mild irritant
					(Acute Dermal	
					Irritation/Corrosi	
					on)	
Skin corrosion/irritation:				Rabbit	OECD 404	Irritant
Sim Conodion, inflation.				1	(Acute Dermal	
					Irritation/Corrosi	
					on)	
Serious eye					, , , , , , , , , , , , , , , , , , ,	Irritant
damage/irritation:			1			



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Serious eye			Rabbit	OECD 405	Not irritant
damage/irritation:				(Acute Eye	
				Irritation/Corrosi	
				on)	
Serious eye			Rabbit	OECD 405	Slightly irritant,
damage/irritation:				(Acute Eye	Analogous
				Irritation/Corrosi	conclusion
				on)	
Respiratory or skin					Sensitising
sensitisation:					(inhalation and skin
					contact)
Germ cell mutagenicity:				OECD 474	Negative
				(Mammalian	
				Erythrocyte	
				Micronucleus	
				Test)	
Carcinogenicity:			Rat	OECD 453	Negative
				(Combined	
				Chronic	
				Toxicity/Carcinog	
				enicity Studies)	
Reproductive toxicity:					Negative
Reproductive toxicity	NOA	12	Rat	OECD 414	
(Developmental	EL			(Prenatal	
toxicity):				Developmental	
				Toxicity Study)	
Reproductive toxicity				OECD 414	No indications of
(Effects on fertility):				(Prenatal	such an effect.
				Developmental	
				Toxicity Study)	
Specific target organ					Irritation of the
toxicity - single					respiratory tract
exposure (STOT-SE):					
Aspiration hazard:					No
Symptoms:					fever, coughing,
					headaches, nausea
					and vomiting.,
					dizziness, breathing
					difficulties,
					laryngeal oedema,
					oedema of the
					lungs, chemical
					pneumonitis
					(condition similar
					to pneumonia),
					abdominal pain,
					diarrhoea

Tris(2-chlorisopropyl)phosphate									
Toxicity / effect	effect Endp Value Unit Organism Test method Notes								
	oint								



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Acute toxicity, by oral	LD50	1150-	mg/kg	Rat		
route:		1750				
Acute toxicity, by	LD50	>2000	mg/kg	Rat		
dermal route:						
Acute toxicity, by	LC50	>5	mg/l	Rat		
inhalation:						
Skin corrosion/irritation:						Not irritant
Serious eye						Not irritant
damage/irritation:						
Germ cell mutagenicity:					(Ames-Test)	Negative
Reproductive toxicity:				Rat		Negative
Symptoms:						respiratory distress,
						loss of hair,
						cramps, watering
						eyes

Dimethyl ether						
Toxicity / effect	Endp oint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by	LC50	164	mg/l/4	Rat		
inhalation:			h			
Germ cell mutagenicity:					OECD 471	Negative
					(Bacterial	
					Reverse	
					Mutation Test)	
Germ cell mutagenicity:					OECD 473 (In	Negative
					Vitro	
					Mammalian	
					Chromosome	
					Aberration Test)	
Germ cell mutagenicity:					OECD 477	Negative
					(Genetic	
					Toxicology - Sex-	
					Linked Recessive	
					Lethal Test in	
					Drosophilia	
					melanogaster)	
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ	NOA	47106		Rat	OECD 452	Negative(2 a)
toxicity - repeated	EC				(Chronic	
exposure (STOT-RE):					Toxicity Studies)	
Symptoms:						unconsciousness,
						headaches, mucous
						membrane
						irritation, dizziness,
						nausea and
						vomiting.

Isobutane



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Toxicity / effect	Endp	Value	Unit	Organism	Test method	Notes
	oint					
Acute toxicity, by	LC50	658	mg/1/4	Rat		
inhalation:			h			
Serious eye				Rabbit		Not irritant
damage/irritation:						
Germ cell mutagenicity:					OECD 471	Negative
					(Bacterial	
					Reverse	
					Mutation Test)	
Symptoms:						unconsciousness,
						frostbite,
						headaches, cramps,
						dizziness, nausea
						and vomiting.

Propane									
Toxicity / effect	Endp oint	Value	Unit	Organism	Test method	Notes			
Germ cell mutagenicity:					OECD 471	Negative			
					(Bacterial				
					Reverse				
					Mutation Test)				
Symptoms:						breathing			
						difficulties,			
						unconsciousness,			
						frostbite,			
						headaches, cramps,			
						mucous membrane			
						irritation, dizziness			
						nausea and			
						vomiting.			

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification)

2K-Foam 400 ml							
Art.: 9076939							
Toxicity / effect	Endpoi	Time	Valu	Unit	Organism	Test method	Notes
	nt		e				
Toxicity to fish:							n.d.a.
Toxicity to							n.d.a.
daphnia:							
Toxicity to algae:							n.d.a.
Persistence and							n.d.a.
degradability:							
Bioaccumulative							n.d.a.
potential:							
Mobility in soil:							n.d.a.



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Results of PBT and vPvB assessment				n.d.a.
Other adverse				n.d.a.
effects:				

	Diphenylmethanediisocyanate, isomeres and homologues Toxicity / effect Endpoi Time Valu Unit Organism Test method Notes											
Toxicity / effect	nt	1 ime	v aru e	Unit	Organism	1 est metnoa	Notes					
Toxicity to fish:	LC0	96h	>100	mg/l	Brachydanio	OECD 203						
,			0		rerio	(Fish, Acute						
						Toxicity						
						Test)						
Toxicity to	EC50	24h	>100	mg/l	Daphnia	OECD 202						
daphnia:			0	8	magna	(Daphnia sp.						
						Acute						
						Immobilisati						
						on Test)						
Toxicity to algae:	EC50	72h	>164	mg/l		IUCLID						
Tometty to argue.	Less	/ 211	0	1116/1		Chem. Data						
			Ü			Sheet (ESIS)						
Toxicity to algae:	NOEC/	72h	1640	mg/l		OECD 201						
Tometty to argue.	NOEL	/ 211	10.0	1116/1		(Alga,						
	1,022					Growth						
						Inhibition						
						Test)						
Persistence and		28d	0	%		OECD 302	Not biodegradable					
degradability:		200	Ü	, 0		C (Inherent	Tiot oroughuunor					
aegradaerni,						Biodegradabi						
						lity -						
						Modified						
						MITI Test						
						(II))						
Results of PBT						(11))	No PBT substance					
and vPvB							1101D1 substance					
assessment												
Toxicity to	EC50	3h	>100	mg/l	activated	OECD 209						
bacteria:			00		sludge	(Activated						
out of the					J.uuge	Sludge,						
						Respiration						
						Inhibition						
						Test						
						(Carbon and						
						Ammonium						
						Oxidation))						





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Other information:	BOD	28d	<10	%	OECD 302
					C (Inherent
					Biodegradabi
					lity -
					Modified
					MITI Test
					(II))

Tris(2-chlorisopropyl)phosphate											
Toxicity / effect	Endpoi	Time	Valu	Unit	Organism	Test method	Notes				
	nt		e								
Toxicity to fish:	LC50	96h	56,2	mg/l	Brachydanio rerio						
Toxicity to fish:	LC50	96h	98	mg/l	Pimephales promelas						
Toxicity to	LC50	48h	65-	mg/l							
daphnia:			335								
Toxicity to algae:	NOEC/	96h	6	mg/l	Selenastrum						
	NOEL				capricornutum						
Persistence and							Not readily				
degradability:							biodegradable				
Bioaccumulative	BCF		0,8-		Cyprinus						
potential:			4,6		caprio						
Bioaccumulative	Log		2,59								
potential:	Pow										

Dimethyl ether	Dimethyl ether											
Toxicity / effect	Endpoi	Time	Valu	Unit	Organism	Test method	Notes					
	nt		e									
Toxicity to fish:	LC50	96h	>400	mg/l	Poecilia							
			0		reticulata							
Toxicity to fish:	LC50	96h	2695	mg/l	Pimephales							
					promelas							
Toxicity to fish:	LC50	96h	3082	mg/l	Salmo							
					gairdneri							
Toxicity to	EC50	48h	>400	mg/l	Daphnia							
daphnia:			0		magna							
Toxicity to algae:	EC0	96h	154,	mg/l	Chlorella	QSAR						
			9		vulgaris							
Persistence and		28d	5	%		OECD 301	Not readily					
degradability:						D (Ready	biodegradable					
						Biodegradabi						
						lity - Closed						
						Bottle Test)						
Bioaccumulative	Log		-0,07				Bioaccumulation is					
potential:	Pow						unlikely (LogPow					
							< 1). 25°C (pH 7)					
Mobility in soil:	Н		518,	Pa*m			No adsorption in					
	(Henry)		6	3/mol			soil.					





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Results of PBT and vPvB assessment					No PBT substance, No vPvB substance
Toxicity to	EC10	>160	mg/l	Pseudomonas	
bacteria:		45.6	/1	putida	2500
Water solubility:		45,6 0	mg/l		25°C

Propane								
Toxicity / effect	Endpoi	Time	Valu	Unit	Organism	Test method	Notes	
	nt		e					
Bioaccumulative	Log		2,28				A notable	
potential:	Pow						biological	
							accumulation	
							potential is not to	
							be expected	
							(LogPow 1-3).	
Results of PBT							No PBT substance,	
and vPvB							No vPvB substance	
assessment								

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product.

Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU)

08 04 09 waste adhesives and sealants containing organic solvents or other hazardous substances

08 05 01 waste isocyanates

16 05 04 gases in pressure containers (including halons) containing hazardous substances

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

Take full aerosol cans to problem waste collection.

Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations.

Do not perforate, cut up or weld uncleaned container.

Residues may present a risk of explosion.

15 01 10 packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

General statements

UN number: 1950

Transport by road/by rail (ADR/RID)

UN proper shipping name: UN 1950 AEROSOLS







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Transport hazard class(es):

Packing group:

Classification code:

LQ (ADR 2015):

2.1

5F

L1 L

Environmental hazards: Not applicable

Tunnel restriction code: D

Transport by sea (IMDG-code)

UN proper shipping name:

AEROSOLS

Transport hazard class(es): 2.1 Packing group: -

EmS: F-D, S-U Marine Pollutant: n.a

Environmental hazards: Not applicable

Transport by air (IATA)

UN proper shipping name:

Aerosols, flammable

Transport hazard class(es): 2.1 Packing group:

Environmental hazards: Not applicable

Special precautions for user

Persons employed in transporting dangerous goods must be trained. All persons involved in transporting must observe safety regulations.

Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.

Minimum amount regulations have not been taken into account.

Danger code and packing code on request.

Comply with special provisions.

SECTION 15: Regulatory information

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

National rules/regulation for the compliance with maximum quantities with regard to phosphates and or phosphorous compounds must be observed and complied with.

For classification and labelling see Section 2.

Observe restrictions:

Comply with trade association/occupational health regulations.

Observe law on protection of expectant mothers (German regulation).

Observe youth employment law (German regulation).

Regulation (EC) No 1907/2006, Annex XVII

Diphenylmethanediisocyanate, isomeres and homologues

Directive 2010/75/EU (VOC): 22 %

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 1 - 16







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These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

Employee training in handling dangerous goods is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC)	Evaluation method used
No. 1272/2008 (CLP)	
Acute Tox. 4, H332	Classification according to calculation procedure.
Eye Irrit. 2, H319	Classification according to calculation procedure.
STOT SE 3, H335	Classification according to calculation procedure.
Skin Irrit. 2, H315	Classification according to calculation procedure.
Resp. Sens. 1, H334	Classification according to calculation procedure.
Skin Sens. 1, H317	Classification according to calculation procedure.
STOT RE 2, H373	Classification according to calculation procedure.
Carc. 2, H351	Classification according to calculation procedure.
Aerosol 1, H222	Classification based on test data.
Aerosol 1, H229	Classification based on test data.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

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.

H220 Extremely flammable gas.

Acute Tox. — Acute toxicity - inhalation

Eye Irrit. — Eye irritation

 $STOT \ SE - Specific \ target \ organ \ toxicity - single \ exposure \ - \ respiratory \ tract \ irritation$

Skin Irrit. — Skin irritation

 $Resp.\ Sens. -- Respiratory\ sensitization$

Skin Sens. — Skin sensitization

STOT RE — Specific target organ toxicity - repeated exposure

Carc. — Carcinogenicity

Aerosol — Aerosols

Acute Tox. — Acute toxicity - oral

Flam. Gas — Flammable gases (including chemically unstable gases)

Any abbreviations and acronyms used in this document:

AC Article Categories

acc., acc. to according, according to



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ACGIH American Conference of Governmental Industrial Hygienists

ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European

Agreement concerning the International Carriage of Dangerous Goods by Road) AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately Art., Art. no. Article number

ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)

BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and

Safety, Germany)

BCF Bioconcentration factor

BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)

BMGVBiological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

bw body weight

CAS Chemical Abstracts Service

CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level

DNEL Derived No Effect Level

DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding

and Allied Processes)

dw dry weight

e.g. for example (abbreviation of Latin 'exempli gratia'), for instance

EC European Community

ECHA European Chemicals Agency

EEA European Economic Area

EEC European Economic Community

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

EN European Norms

EPA United States Environmental Protection Agency (United States of America)

ERC Environmental Release Categories

ES Exposure scenario

etc. et cetera

EU European Union

EWC European Waste Catalogue

Fax. Fax number



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gen. general

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

HGWPHalocarbon Global Warming Potential

IARC International Agency for Research on Cancer

IATA International Air Transport Association

IBC Intermediate Bulk Container

IBC (Code) International Bulk Chemical (Code)

IC Inhibitory concentration

IMDG-code International Maritime Code for Dangerous Goods

incl. including, inclusive

IUCLID International Uniform ChemicaL Information Database

LC lethal concentration

LC50 lethal concentration 50 percent kill

LCLo lowest published lethal concentration

LD Lethal Dose of a chemical

LD50 Lethal Dose, 50% kill

LDLo Lethal Dose Low

LOAEL Lowest Observed Adverse Effect Level

LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level

LO Limited Quantities

MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicablen.av. not availablen.c. not checkedn.d.a. no data available

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAEC No Observed Adverse Effective Concentration

NOAEL No Observed Adverse Effect Level

NOEC No Observed Effect Concentration

NOEL No Observed Effect Level ODP Ozone Depletion Potential

OECD Organisation for Economic Co-operation and Development

org. organic

PAH polycyclic aromatic hydrocarbon PBT persistent, bioaccumulative and toxic

PC Chemical product category

PE Polyethylene

PNEC Predicted No Effect Concentration

POCP Photochemical ozone creation potential

ppm parts per million PROC Process category

PTFE Polytetrafluorethylene

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.





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RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SADT Self-Accelerating Decomposition Temperature

SAR Structure Activity Relationship

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand

TOC Total organic carbon

TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)

UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.