

B	The mixture does not contain any PBT substance (PBT = pe	rsistent, bioaccumulative, toxic) or is not included
Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878) Revision date / version: 25.11.2024 / 0016 Replacing version dated / version: 19.10.2022 / 0015	under XIII of the regulation (EC) 1907/2006 (-0,1 %). The mixture does not contain any substance with endocrine	
Valid from: 25.11.2024 PDF print date: 28.11.2024 KNAPP PM+ KLEBER GLUE COLLA	SECTION 3: Composition/info	ormation on ingredients
Safety data sheet	3.1 Substances	
according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)	3.2 Mixtures Propylene carbonate	
SECTION 1: Identification of the substance/mixture and of the	Registration number (REACH) Index	01-2119537232-48-XXXX 607-194-00-1
company/undertaking	EINECS, ELINCS, NLP, REACH-IT List-No. CAS	203-572-1 108-32-7
1.1 Product identifier	content % Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	1-<10 Eye Irrit. 2, H319
KNAPP PM+ KLEBER GLUE COLLA	4,4'-methylenediphenyl diisocyanate Registration number (REACH)	01-2119457014-47-XXXX
1.2 Relevant identified uses of the substance or mixture and uses advised	Index EINECS, ELINCS, NLP, REACH-IT List-No. CAS	615-005-00-9 202-966-0 101-68-8
against Relevant identified uses of the substance or mixture:	content % Classification according to Regulation (EC) 1272/2008	1-<10 Acute Tox. 4, H332
Adhesive Uses advised against: No information available at present.	(CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
1.3 Details of the supplier of the safety data sheet		Resp. Sens. 1, H334 Carc. 2, H351
Knapp GmbH Wassergasse 31 3324 Euratsfeld		STOT SE 3, H335 STOT RE 2, H373 (respiratory system) (as inhalation)
Tel: +43 (0)7474 / 799 10 Fax: +43 (0)7474 / 799 10	Specific Concentration Limits and ATE	Skin Irrit. 2, H315: >=5 % Eye Irrit. 2, H319: >=5 %
mholzer@knapp-verbinder.com		Resp. Sens. 1, H334: >=0,1 % STOT SE 3, H335: >=5 % ATE (as inhalation, Aerosol): 1,5 mg/l/4h
Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO		ATE (as inhalation, Vapours): 11 mg/l/4h
NOT use for requesting Safety Data Sheets.	o-(p-isocyanatobenzyl)phenyl isocyanate Registration number (REACH)	01-2119480143-45-XXXX
1.4 Emergency telephone number Emergency information services / official advisory body:	Index EINECS, ELINCS, NLP, REACH-IT List-No. CAS	615-005-00-9 227-534-9 5873-54-1
 Telephone number of the company in case of emergencies:	Content % Classification according to Regulation (EC) 1272/2008	1-<10 Acute Tox. 4, H332
+49 (0) 700 / 24 112 112 (WIC) +1 872 5888271 (WIC)	(CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319
SECTION 2: Hazards identification		Resp. Sens. 1, H334 Skin Sens. 1, H317 Carc. 2, H351
		STOT SE 3, H335 STOT RE 2, H373 (respiratory system) (as
2.1 Classification of the substance or mixture Classification according to Regulation (EC) 1272/2008 (CLP)	Specific Concentration Limits and ATE	inhalation) Skin Irrit. 2, H315: >=5 % Eye Irrit. 2, H319: >=5 %
Hazard class Hazard category Hazard statement Eye Irrit. 2 H319-Causes serious eye irritation.		Resp. Sens. 1, H334: >=0,1 % STOT SE 3, H335: >=5 %
STOT SE 3 H335-May cause respiratory irritation. Skin Irrit. 2 H315-Causes skin irritation.		ATE (as inhalation, Aerosol): 1,5 mg/l/4h ATE (as inhalation, Vapours): 11 mg/l/4h
Resp. Sens. 1 H334-May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Diphenylmethanediisocyanate, isomeres and homologues	
Skin Sens. 1 H317-May cause an allergic skin reaction. Carc. 2 H351-Suspected of causing cancer.	Registration number (REACH) Index	
STOT RE 2 H373-May cause damage to organs through	EINECS, ELINCS, NLP, REACH-IT List-No. CAS	 9016-87-9
prolonged or repeated exposure by inhalation (respiratory system).	content % Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	1-<10 Acute Tox. 4, H332 Skin Irrit. 2, H315
2.2 Label elements		Eye Irrit. 2, H319 Skin Sens. 1, H317
Labeling according to Regulation (EC) 1272/2008 (CLP)		Resp. Sens. 1, H334 Carc. 2, H351 STOT SE 3, H335
$\wedge \wedge$		STOT RE 2, H373 (respiratory system) (as inhalation)
	Specific Concentration Limits and ATE	Skin Irrit. 2, H315: >=5 % Eye Irrit. 2, H319: >=5 % Resp. Sens. 1, H334: >=0,1 %
		STOT SE 3, H335: >=5 % ATE (as inhalation, Aerosol): 1,5 mg/l/4h
\vee \vee		ATE (as inhalation, Vapours): 11 mg/l/4h
Danger	Titanium dioxide (in powder form containing 1 % or more of particles with aerodynamic diameter <= 10 μm) Registration number (REACH)	01-2119489379-17-XXXX
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-	Index EINECS, ELINCS, NLP, REACH-IT List-No.	022-006-00-2 236-675-5
May cause an allergic skin reaction. H351-Suspected of causing cancer. H373-May cause damage to organs through prolonged or repeated exposure by inhalation (respiratory system).	CAS content %	13463-67-7 <5
P201-Obtain special instructions before use. P260-Do not breathe vapours or spray. P280-Wear protective gloves / protective clothing / eye protection / face protection. P284-Wear respiratory	Classification according to Regulation (EC) 1272/2008 (CLP), M-factors	Carc. 2, H351 (as inhalation)
protective gloves / protective clothing / eye protection / face protection. P284-Wear respiratory protection. P302+P352-IF ON SKIN: Wash with plenty of water / soap. P304+P340-IF INHALED: Remove	2,2'-methylenediphenyl diisocyanate Registration number (REACH)	01-2119927323-43-XXXX
person to fresh air and keep comfortable for breathing. P305+P351+P338-IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.	Index EINECS, ELINCS, NLP, REACH-IT List-No.	615-005-00-9 219-799-4
Continue rinsing. P308+P313-IF exposed or concerned: Get medical advice / attention. EUH204-Contains isocyanates. May produce an allergic reaction.	CAS content % Classification according to Regulation (EC) 1272/2008	2536-05-2 0,1-<1 Acute Tox. 4, H332
EUH211-Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.	(CLP), M-factors	Skin Irrit. 2, H315 Eye Irrit. 2, H319
As from 24 August 2023 adequate training is required before industrial or professional use.		Skin Sens. 1, H317 Resp. Sens. 1, H334
4.4-methylenediphenyl diisocyanate 2,2'-methylenediphenyl diisocyanate o-[o-isocyanatobenzyl)phenyl isocyanate Diphenylmethanediisocyanate, isomeres and homologues		Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373 (respiratory system) (as inhalation)
2.3 Other hazards The mixture does not contain any vPvR substance (vPvR – very persistent, very bioaccumulative) or is not		

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 (< 0,1 %).



(CB) Page 2 of 14 Safety data sheet according to Regulation (EC) No 1907/2004 2020/878) Revision date / version: 25.11.2024 / 0016 Replacing version dated / version: 19.10.2022 / 0015 Valid from: 25.11.2024 PDF print date: 28.11.2024 KNAPP PM+ KLEBER GLUE COLLA	5, Annex II (last amended by Regulation (EU)	6.3 Methods and material for cc Soak up with absorbent material (e.g. univ dispose of according to Section 13. Allow to stand for a few days in an unclose Keep moist. Do not close packing drum. CO2 formation in closed tanks causes pre: 6.4 Reference to other sections	ersal binding agent, sand, o ed container until reaction n ssure to rise.	diatomaceous earth,	sawdust) and
Specific Concentration Limits and ATE	Skin Irrit. 2, H315: >=5 % Eye Irrit. 2, H319: >=5 %	For personal protective equipment see Sec	•		13.
For the text of the H-phrases and classification codes (GHS/C The substances named in this section are given with their act For substances that are listed in appendix VI, table 3.1 of the this means that all notes that may be given here for the name The addition of the highest concentrations listed here can res classification.	Resp. Sens. 1, H334: >=0,1 % STOT SE 3, H335: >=5 % ATE (as inhalation, Aerosol): 1,5 mg/l ATE (as inhalation, Vapours): 11 mg/l/4h LP), see Section 16. Jal, appropriate classification! regulation (EC) no. 1272/2008 (CLP regulation) d classification have been taken into account. ult in a classification.	In addition to information given in this sect 7.1 Precautions for safe handli 7.1.1 General recommendation Ensure good ventilation. Avoid inhalation of the vapours. If applicable, suction measures at the work Avoid contact with eyes or skin. No contact with products of this type in cas Eating, drinking, as well as food-	ng S «station or on the processin se of allergies, asthma und	n also be found in so g machine necessa chronic respiratory t	у.
SECTION 4: First a	id measures	Observe directions on label and instruction Use working methods according to operati	ns for use.	IK-IOOIII.	
 4.1 Description of first aid measures First-aiders should ensure they are protected! Never pour anything into the mouth of an unconscious person Inhalation Remove person from danger area. Supply person with fresh air and consult doctor according to s if the person is unconscious, place in a stable side position an Respiratory arrest - Artificial respiration apparatus necessary. Skin contact Wipe off residual product carefully with a soft, dry cloth. Remove pollued, soaked clothing immediately, wash thoroug irritation of the skin (flare), consult a doctor. Dab away with polyethylene glycol 400 Eye contact Remove contact lenses. Wash thoroughly for several minutes using copious water - cat Ingestion Rinse the mouth thoroughly with water. Do not induce vomiting - give copious water to drink. Consult 4.2 Most important symptoms and effects, bot If applicable delayed symptoms and effects, bot If applicable delayed symptoms and effects, bot If applicable delayed symptoms and effects. Milergic contact eczema Discoloration of the skin. Allergic contact of the skin Milergic contact enses Effect on the central nervous system Astimatic symptoms In case of sensitivity, concentrations below the limit value may Respiratory distress In case of sensitivity, concentrations below the limit value may Respiratory distress In case of sensitivity, concentrations pelos on any only appear 	ymptoms. Id consult a doctor. hly with plenty of water and soap, in case of all doctor immediately, have Data Sheet available. doctor immediately. 5th acute and delayed ection 11 and the absorption route in section 4.1. (already result in asthmatic symptoms. after an extended period / after several hours. tion and special treatment needed	7.1.2 Notes on general hygiene General hygiene measures for the handlin, Wash hands before breaks and at end of v Keep away from food, drink and animal fer Remove contaminated clothing and protec 7.2 Conditions for safe storage Keep out of access to unauthorised individ Not to be stored in gangways or stair wells Store product closed and only in original p Keep protected from direct sunlight and ter Only store at temperatures from to . Store in a dry place. 2.3 Conditions for good working Consult hazardous substance information industry or different industries, depending on the application (building mat Observe the instructions for good working Consult hazardous substance information industry or different industries, depending on the application (building mat Observe special requirements for isocyana of protective measures. SECTION 8: Expoo 8.1 Control parameters WEL-TWA: 0.02 mg/m3 (isocyanates, all (as -NCO) (WEL-TWA), 10 µg/m3 (until 31.12.2028), 6 µg/m3 (trom 01.01.2029) (measured as NCO, disocyanates) (EU) Monitoring procedur	g of chemicals are applicab work. edingstuffs. tive equipment before ente , , including any incc luals. acking. mperatures over 50°C. practice and the recommer systems, e.g. from the prof terials, wood, chemistry, lat ates, also within the frame	ring areas in which f impatibilities additions for risk asso- essional association boratory, leather, me fork of the risk asses rssonal prote rssonal prote (1) r quality – determina ising 2-(1-methoxypi 2007 ryanates in air – Lab methoxyphenylpipe Ivent desorption or i mance liquid chrom	essment. s, the chemical tai). sment and definition ection tion of total nenylpiperazine and oratory method using razine coated glass tto impingers and atography) - 2015 -
Medical supervision necessary due to possibility of delayed re SECTION 5: Firefight		-	NIOSH 5521 (ISOCYANA NIOSH 5522 (ISOCYANA NIOSH 5525 (ISOCYANA	TES, MONOMERIC (TES) - 1998 (TES, TOTAL (MAP)	:) - 1994)) - 2003
5.1 Extinguishing media		- - BMGV: 1 μmol isocyanate-derived diami	OSHA 18 (Diisocyanates OSHA 47 (Methylene Bis ine/mol creatinine in urine	phenyl Isocyanate (N	/IDI)) - 1984
Suitable extinguishing media		(At the end of the period of exposure) (BM		(Isocyanates, all (diisocyanates) () (WEL) / (13), (15)
Extinction powder Water jet spray		GB Chemical Name o-(p-isocy WEL-TWA: 0,02 mg/m3 (Isocyanates,	vanatobenzyl)phenyl isocya WEL-STEL: 0,07 mg/		
Foam Unsuitable extinguishing media High volume water jet		all (as -NCO)) Monitoring procedures:	all (as -NCO))		
S.2 Special hazards arising from the substan In case of fire the following can develop: Oxides of carbon Oxides of nitrogen	ce or mixture	BMGV: 1 µmol isocyanate-derived diami (At the end of the period of exposure) Cep Chemical Name Diphenylr WEL-TWA: 0.02 mg/m3 (Isocyanates,	me/mol creatinine in urine methanediisocyanate, isom WEL-STEL: 0,07 mg)
Isocyanates Hydrocyanic acid (hydrogen cyanide) Toxic gases 5.3 Advice for firefighters		all (as -NCO)) (WEL-TWA), 10 µg/m3 (until 31.12.2028), 6 µg/m3 (from 01.01.2029) (measured as NCO, diisocyanates) (EU)	all (as -NCO)) (WEL-S		
For personal protective equipment see Section 8. In case of fire and/or explosion do not breathe fumes. Protective respirator with independent air supply. According to size of fire		Monitoring procedures: BMGV: 1 µmol isocyanate-derived diami (At the end of the period of exposure) (BM		Other information (Isocyanates, all (diisocyanates) () (WEL) / (13), (15)
Full protection, if necessary. Cool container at risk with water. Dispose of contaminated extinction water according to official	regulations	particles	dioxide (in powder form con with aerodynamic diameter		of
SECTION 6: Accidental I	-	WEL-TWA: 10 mg/m3 (total inhalable dust), 4 mg/m3 (respirable dust)	WEL-ŚTEL:		
		Monitoring procedures: BMGV:		Other information	n:
 6.1 Personal precautions, protective equipme 6.1.1 For non-emergency personnel In case of spillage or accidental release, wear personal protect prevent contamination. Ensure sufficient ventilation, remove sources of ignition. Avoid dust formation with solid or powder products. Leave the danger zone if possible, use existing emergency ple Ensure sufficient supply of air. Avoid inhalation, and contact with eyes or skin. If applicable, caution - risk of slipping. 6.1.2 For emergency responders See section 8 for suitable protective equipment and material statistics 	tive equipment as specified in section 8 to	WEL-TWA: 0.02 mg/m3 ((socyanates, all (as -NCO)) (WEL-TWA), 10 µg/m3 (until 31.12.2028), 6 µg/m3 (from 01.01.2029) (measured as NCO, diisocyanates) (EU) Monitoring procedures: BMGV: BMGV: 1 µm0 isocyanate-derived diami (At the end of the period of exposure) (BM CB Chemical Name 4.4'-meth WEL-TWA: WEL-TWA: 0.02 mg/m3 ((socyanates, BMGV: 4.4'-meth	GV) ylenediphenyl diisocyanate WEL-STEL: 0,07 mg	m3 (Isocyanates, TEL) Other informatio (Isocyanates, ali (isocyanates) (m3 (Isocyanates,) (WEL) / (13), (15)
6.2 Environmental precautions If leakage occurs, dam up. Resolve leaks if this possible without risk. Prevent surface and ground-water infiltration, as well as groun Prevent from entering drainage system. If accidental entry into drainage system occurs, inform respon	nd penetration.	ali (as -NCO)) (WEL-TWA), 10 µg/m3 (until 31.12.2028), 6 µg/m3 (from 01.01.2029) (measured as NCO, diisocyanates) (EU)	all (as -NCO)) (WEL-S		



Consumer	Human - oral	Short term, systemic effects	DNEL	20	mg/kg bw/day		¢						
	sediment, marine				dry weight		Workers / employees	Human - inhalation	Long term, local effects	DNEL	10	mg/m3	
	Environment -		PNEC	1,17	weight mg/kg		Consumer	Human - oral	Long term, systemic effects	DNEL	700	mg/kg bw/d	
	Environment - sediment, freshwater		PNEC	11,7	mg/kg dry			Environment - oral (animal feed)		PNEC	166 7	mg/kg feed	
	Environment - sporadic (intermittent) release		PNEC	37	µg/l			Environment - soil		PNEC	100	dw mg/kg dw	
	Environment - soil		PNEC	2,33	mg/kg dw			sediment, freshwater Environment - sediment, marine		PNEC	0 100	dw mg/kg	
	sewage treatment plant			0.00	N			plant Environment -		PNEC	100	mg/kg	
	marine Environment -		PNEC	1	mg/l			Environment - sewage treatment		PNEC	100	mg/l	
	freshwater Environment -		PNEC	0,37	µg/l			water, sporadic (intermittent) release			3	m~//	<u> </u>
	compartment Environment -		PNEC	3,7	µg/l			marine Environment -		PNEC	84 0,19	mg/l	-
	Environmental	health	ptor	e	Unit	Note		Environment -		PNEC	0,01	mg/l	
,4'-methylenediphen trea of application	yl diisocyanate Exposure route /	Effect on	Descri	Valu	Unit	Note		Environment - freshwater		PNEC	0,18 4	mg/l	
								Environmental compartment	health	ptor	e		
Vorkers / mployees	Human - inhalation	Long term, local effects	DNEL	20	mg/m3		μm) Area of application	Exposure route /	Effect on	Descri	Valu	Unit	No
/orkers / mployees	Human - dermal	Long term, systemic effects	DNEL	20	mg/kg			oowder form containing	1 % or more of part	icles with a	aerodyna	mic diame	eter <=
Vorkers / mployees	Human - inhalation	Long term, systemic effects	DNEL	176	mg/m3		employees	<u> </u>	local effects				<u> </u>
/orkers / mployees	Human - inhalation	Long term, systemic effects	DNEL	70,5 3	mg/kg		employees Workers /	Human - inhalation	local effects Long term,	DNEL	0,05	mg/m3	-
onsumer	Human - inhalation	Long term, systemic effects	DNEL	17,4	mg/m3		Workers /	Environment - soil Human - inhalation	Short term,	PNEC DNEL	2,33 0,1	mg/kg mg/m3	-
onsumer	Human - inhalation	Long term, local effects	DNEL	10	mg/m3			Environment - sediment, marine		PNEC	1,17	mg/kg	
onsumer	Human - dermal	Long term, systemic effects	DNEL	10	mg/kg			Environment - sediment, freshwater		PNEC	11,7	mg/kg	
onsumer	Human - oral	Long term, systemic effects		10	mg/kg			marine				µg/l	
000000-	plant	Long torm	DNEL		pc = /1			freshwater Environment -		PNEC	3,7 0,37	µg/l	
	Environment - sewage treatment		PNEC	740 0	mg/l			compartment Environment -		PNEC	3,7	110/1	
	Environment - sediment, freshwater		PNEC	0,83	mg/l		Area of application	Exposure route / Environmental	Effect on health	Descri ptor	Valu e	Unit	N
	Environment - freshwater		PNEC	0,9	mg/l		Diphenvlmethanediis	ocyanate, isomeres and	homoloaues				
	sediment, marine Environment - soil		PNEC	0,08 3 0,81	mg/l		employees		local effects		.,	5	
	marine Environment -		PNEC	0,03	mg/l		employees Workers /	Human - inhalation	systemic effects Long term,	DNEL	0,05	mg/m3	-
	(intermittent) release Environment -		PNEC	0,09	mg/l		employees Workers /	Human - inhalation	local effects Long term,	DNEL	0,05	mg/m3	<u> </u>
	Environment - sporadic		PNEC	9	mg/l		employees Workers /	Human - inhalation	systemic effects Short term,	DNEL	0,1	mg/m3	+
	Environmental compartment	health	ptor	е			employees Workers /	Human - inhalation	local effects Short term,	DNEL	0,1	2 mg/m3	-
ropylene carbonate rea of application	Exposure route /	Effect on	Descri	Valu	Unit	Note	employees Workers /	Human - dermal	systemic effects Short term,	DNEL	28,7	bw/d mg/cm	-
							Workers /	Human - dermal	systemic effects Short term,	DNEL	5 50	mg/kg	-
			(diisocy	anates) (EU)		Consumer	Human - inhalation	Long term,	DNEL	0,02	mg/m3	
	anate-derived diamine/mo d of exposure) (BMGV)	o creatinine in urine	(Isocya		(WEL) / (13), (15)	Consumer	Human - inhalation	Long term, local effects	DNEL	0,02 5	mg/m3	
isocyanates) (EU) onitoring procedures:		l exectivity - 1	0				Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3	
.01.2029) (measured							Consumer	Human - inhalation	Short term, local effects	DNEL	0,05	mg/m3	
I (as -NCO)) (WEL-TV Intil 31.12.2028), 6 µg	VA), 10 µg/m3 al	I (as -NCO)) (WEL-S					Consumer	Human - dermal	Short term, systemic effects	DNEL	25	mg/kg bw/d	
Chemical Name /EL-TWA: 0,02 mg/r		nediisocyanate, isom 'EL-STEL: 0,07 mg			es 		Consumer	Human - dermal	Short term, local effects	DNEL	17,2	mg/cm 2	
MGV:			Other in	formatio	n:		Consumer	Human - orál	Short term, systemic effects	DNEL	20	mg/kg bw/day	
0 mg/m3 (total inhalab lonitoring procedures:	ole dust)							sporadic (intermittent) release					
Chemical Name VEL-TWA: 4 mg/m3		nate /EL-STEL:						Environment -		PNEC	10	dw mg/l	
At the end of the period				nates, all				plant Environment - soil		PNEC	1	mg/kg	-
Nonitoring procedures:	anate-derived diamine/mo		Other in	formatio) Ser			Environment - sewage treatment		PNEC	1	mg/l	
VEL-TWA: 0,02 mg/r III (as -NCO))	m3 (Isocyanates, W	EL-STEL: 0,07 mg.	/m3 (Isocya	nates,				Environment - marine		PNEC	0,1	mg/l	
Chemical Name	o-(p-isocvapate	benzyl)phenyl isocya		omatiol				Environment - freshwater		PNEC	1	mg/l	
,4 mg/m3 (resp. dust) Monitoring procedures: MGV:			Other :-	formation)			Environmental compartment	health	ptor	e		
Chemical Name VEL-TWA: 6 mg/m3		'EL-STEL:					o-(p-isocyanatobenzy Area of application	Exposure route /	Effect on	Descri	Valu	Unit	No
			(diisocy	anates) (EU)								
	nate-derived diamine/mo d of exposure) (BMGV)	ol creatinine in urine		nformation nates, all	n: Sen (WEL) / ((13), (15)	Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,05	mg/m3	
		IA 18 (Diisocyanates IA 47 (Methylene Bis				1	Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,05	mg/m3	
	- NIO	SH 5522 (ISOCYANA SH 5525 (ISOCYANA	ATES, TOT	AL (MAP)			Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	0,1	mg/m3	
	- NIO	project BC/CEN/ENT SH 5521 (ISOCYAN/	ATES, MON	IOMERIC	7-4 (2004)) - 1994		Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,1	mg/m3	
	anal	filters followed by so ysis using high perfo	rmance liqu	id chrom	atography)		Workers / employees	Human - dermal	Short term, systemic effects	DNEL	50	mg/kg bw/day	
	sam	HS 25/4 (Organic isod pling either onto 2-(1	-methoxyph	enylpipe	razine coate	ed glass	Workers / employees	Human - dermal	Short term, local effects	DNEL	28,7	mg/cm 2	
	- liqui	yanate groups in air u d chromatography) -	2007				Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,02 5	mg/m3	
Monitoring procedures:		16702 (Workplace a					Consumer	Human - inhalation	Long term, local effects	DNEL	0,02	mg/m3	
PDF print date: 28.11.2 (NAPP PM+ KLEBER							Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3	
/alid from: 25.11.2024		0015					Consumer	Human - inhalation	Short term, local effects	DNEL	0,05	mg/m3	
Replacing version date												bw/day	
020/878) Revision date / version: Replacing version date							Consumer	Human - dermal	Short term, systemic effects	DNEL	25	mg/kg	



Short term, DNEL 20 mg/kg

	n: 25.11.2024 / 0016						
Replacing version dat /alid from: 25.11.202 PDF print date: 28.11		0015					Consu Consu
(NAPP PM+ KLEBEI							
2,2'-methylenediphe	nyl diisocyanate						Consu
Area of application	Exposure route /	Effect on	Descri	Valu	Unit	Note	Worke
	Environmental compartment	health	ptor	е			emplo Worke
	Environment -		PNEC	1	mg/l		emplo
	freshwater Environment -		PNEC	0,1	mg/l		Worke emplo
	marine		FNEC	0,1	iiig/i		Worke
	Environment -		PNEC	1	mg/l		emplo Worke
	sewage treatment plant						emplo
	Environment - soil		PNEC	1	mg/kg		Worke
	Environment -		PNEC	10	dw mg/l		emplo
	water, sporadic						
Consumer	(intermittent) release Human - oral	Short term,	DNEL	20	mg/kg		Diphe Area d
Jonsumer	Human - Orai	systemic effects	DINEL	20	bw/d		7.00
Consumer	Human - dermal	Short term,	DNEL	17,2	mg/cm		
Consumer	Human - dermal	local effects Short term,	DNEL	25	2 mg/kg		
		systemic effects			bw/d		
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3		
Consumer	Human - inhalation	Short term,	DNEL	0,05	mg/m3		
		local effects					
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,02 5	mg/m3		
Consumer	Human - inhalation	Long term,	DNEL	0,02	mg/m3		
Vorkers /	Human - dermal	local effects Short term,	DNEL	5 28,7			Consu
employees	Human - dermai	local effects	DINEL	20,7	mg/cm 2		Consc
Vorkers /	Human - dermal	Short term,	DNEL	50	mg/kg		Consu
employees Vorkers /	Human - inhalation	systemic effects Short term,	DNEL	0,1	bw/d mg/m3		Consu
mployees		local effects			0		
Norkers /	Human - inhalation	Short term,	DNEL	0,1	mg/m3		Consu
employees Vorkers /	Human - inhalation	systemic effects Long term,	DNEL	0,05	mg/m3		Consu
		systemic effects			-		
			DUEL				
employees Norkers / employees	Human - inhalation	Long term,	DNEL	0,05	mg/m3		Consu
	Human - inhalation		DNEL	0,05	mg/m3		
Norkers /		Long term,	DNEL	0,05	mg/m3		Consu
Workers / employees	nyl diisocyanate Exposure route /	Long term, local effects Effect on	Descri	Valu	mg/m3	Note	Consu Worke emplo
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental	Long term, local effects			-	Note	Consu Worke emplo Worke
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental compartment Environment -	Long term, local effects Effect on	Descri	Valu	-	Note	Consu Worke emplo Worke emplo Worke
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater	Long term, local effects Effect on	Descri ptor PNEC	Valu e 1	Unit mg/l	Note	Consu Worke emplo Worke emplo Worke emplo
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental compartment Environment -	Long term, local effects Effect on	Descri ptor	Valu e	Unit	Note	Consu emplo Worke emplo Worke emplo Worke emplo
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment -	Long term, local effects Effect on	Descri ptor PNEC	Valu e 1	Unit mg/l mg/kg	Note	Consu emplo Worke emplo Worke emplo Worke emplo Worke
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental Environment - freshwater Environment - marine	Long term, local effects Effect on	Descri ptor PNEC PNEC	Valu e 1 0,1	Unit mg/l mg/kg dw	Note	Consu Worke emplo Worke emplo Worke emplo Worke emplo
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment	Long term, local effects Effect on	Descri ptor PNEC PNEC PNEC	Valu e 1 0,1 1	Unit mg/l mg/kg	Note	Consu emplo Worke emplo Worke emplo Worke emplo Worke emplo Worke
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant	Long term, local effects Effect on	Descri ptor PNEC PNEC PNEC PNEC	Valu e 1 0,1 1 1	Unit mg/l mg/kg dw mg/l	Note	Consu Worke emplo Worke emplo Worke emplo Worke emplo
Vorkers / employees I,4'-methylenediphe	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - water, sporadic	Long term, local effects Effect on	Descri ptor PNEC PNEC PNEC	Valu e 1 0,1 1	Unit mg/l mg/kg dw	Note	Consu Worke emplo Worke emplo Worke emplo Worke emplo Worke emplo
Norkers / employees i,4'-methylenediphe area of application	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - water, sporadic (intermittent) release	Long term, local effects Effect on health	Descri ptor PNEC PNEC PNEC PNEC PNEC	Valu e 1 0,1 1 1 10	Unit mg/l mg/kg dw mg/l mg/l	Note	Consu Worke emplo Worke emplo Worke emplo Worke emplo Worke emplo Worke emplo
Norkers / employees i,4'-methylenediphe area of application	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - water, sporadic	Long term, local effects Effect on health Short term,	Descri ptor PNEC PNEC PNEC PNEC	Valu e 1 0,1 1 1	Unit mg/l mg/kg dw mg/l mg/l mg/kg	Note	Consu Worke emplo Worke emplo Worke emplo Worke emplo Worke emplo Worke emplo
Norkers / employees 	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - water, sporadic (intermittent) release	Long term, local effects Effect on health Short term, systemic effects Short term,	Descri ptor PNEC PNEC PNEC PNEC PNEC	Valu e 1 0,1 1 1 10	Unit mg/l mg/kg dw mg/l mg/l	Note	Consu Worke emploid Worke
Norkers / mployees J,4'-methylenediphe Area of application Consumer Consumer	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL	Valu e 1 0,1 1 1 10 25 0,05	Unit mg/l mg/kg dw mg/l mg/l mg/kg bw/d mg/kg	Note	Consu Worke emploid emploid em
Norkers / omployees J.4'-methylenediphe Area of application Consumer Consumer Consumer	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation Human - oral	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, systemic effects	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL	Valu e 1 0,1 1 1 10 25 0,05 20	Unit mg/l mg/kg dw mg/l mg/l mg/kg bw/d mg/m3 mg/kg bw/d	Note	Consu Worke emploid emploid emp
Norkers / omployees J.4'-methylenediphe Area of application Consumer Consumer Consumer	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, systemic effects Short term,	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL	Valu e 1 0,1 1 1 10 25 0,05	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/kg	Note	Consu Worke emploid emploid emp
Norkers / employees Area of application Consumer Consumer Consumer Consumer	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation Human - oral	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, systemic effects	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL	Valu e 1 0,1 1 1 10 25 0,05 20	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/kg bw/d mg/kg bw/d mg/cm 2	Note	Consu Worke emploid Worke
Norkers / employees i,4'-methylenediphe Area of application Consumer Consumer Consumer Consumer Consumer Consumer Consumer	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - oral Human - dermal Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, local effects	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL	Valu e 1 0,1 1 1 1 10 25 0,05 20 17,2 0,05	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/cm 2 mg/m3	Note	Consu Worke emploid Weithou emploid Weithou emploid Weithou emploid Weithou emploid Weithou emploid em
Norkers / employees i,4'-methylenediphe Area of application Consumer Consumer Consumer Consumer Consumer Consumer Consumer	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - oral Human - oral	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, local effects Short term, local effects Long term, local effects Long term,	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL	Value 1 0,1 1 1 10 25 0,05 20 17,2 0,05 0,05 0,05	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/kg bw/d mg/kg bw/d mg/cm 2	Note	Consu Worke emploid emploid emploid emploid emploid emploid emploid emploid emploid
Vorkers / imployees 	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - oral Human - dermal Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, systemic effects Short term, local effects Short term, local effects Long term, systemic effects Long term,	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL	Value 1 0,1 1 1 10 25 0,05 20 17,2 0,05 0,05 0,05 0,05	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/cm 2 mg/m3	Note	Consu Worke emploid emploid Worke emploid (EU) = or 2001 (EU) = or 201 (B) = 1 (10) =
Vorkers / imployees imployees i,4'-methylenediphe vea of application Consumer Consum	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation Human - inhalation Human - inhalation Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, local effects Long term, local effect Long term, local effect Long term, local effect Long term, local effect	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Valu e 1 0,1 1 1 1 1 25 0,05 20 17,2 0,05 0,02 5 0,02 5	Unit mg/l mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/cm 2 mg/m3 mg/m3	Note	Consult Worke emploid (EU) = or 2001 (EU) = BMO 20202)
Vorkers / imployees imployees imployees idea of application consumer vorkers /	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation Human - inhalation Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, systemic effects Short term, local effects Long term, local effects Long term, local effects Short term, Short	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Value 1 0,1 1 1 10 25 0,05 20 17,2 0,05 0,05 0,05 0,05	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/m3 mg/m3 mg/m3 mg/m3	Note	Consu Worke emploid (EU) = or 201 (B) = 1 (10) = Alter BMQ 2020); (EU) = Scienti
Vorkers / employees L,4'-methylenediphe Area of application Consumer Consumer Consumer Consumer Consumer Consumer Consumer Norkers / Workers / Vorkers /	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation Human - inhalation Human - inhalation Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, local effects Short term, local effects Long term, local effects Long term, Local effects Short term, Systemic effects Short term, Systemic effects Short term, Short term, Systemic effects Short term, Short t	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Valu e 1 0,1 1 1 1 1 25 0,05 20 17,2 0,05 0,02 5 0,02 5	Unit mg/l mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/cm 2 mg/m3 mg/m3	Note	Consu Worke emploid @emploid
Vorkers / employees Area of application Area of application Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Vorkers / mployees Vorkers / mployees	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation Human - inhalation Human - inhalation Human - inhalation Human - inhalation Human - dermal Human - dermal Human - dermal	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, systemic effects Short term, local effects Long term, local effects Long term, local effects Short term, systemic effects Short term,	Descri ptor PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Value 1 0,1 1 1 10 25 0,05 20 17,2 0,05 0,02 5 0,02 50 0,1	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/m3 mg/kg bw/d mg/m3	Note	Consult Worke emploid emploid worke emploid (EU) = or 2010 (EU) = or 2011 (EU) = Sciental Sciental Othe occup genetic
Vorkers / employees i,4'-methylenediphe iea of application Consumer Consumer Consumer Consumer Consumer Consumer Consumer Vorkers / mployees Vorkers / Vorkers / Vorkers / Vorkers / Vorkers /	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - sewage treatment plant Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation Human - inhalation Human - inhalation Human - inhalation Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, local effects Short term, local effects Long term, local effects Long term, Local effects Short term, Systemic effects Short term, Systemic effects Short term, Short term, Systemic effects Short term, Short t	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Value 1 0,1 1 1 10 25 0,05 20 17,2 0,05 0,05 0,05 50	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/cm 2 mg/m3 mg/m3 mg/m3 mg/m3 mg/m3	Note	Consult Worke emploid (EU) = or 2001 (B) = 1 (11) = WEI (EU) = or 201 (B) = 1 (10) = 10) = 10) = 10) = Scient 0th occup genetic (EU) = Scient 0th occup genetic
Vorkers / employees 4.4-methylenediphe Area of application Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Vorkers / mployees Vorkers / mployees Vorkers / Vork	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - inhalation Human - inhalation Human - inhalation Human - inhalation Human - dermal Human - dermal Human - dermal	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, local effects Short term, local effects Long term, local effects Short term, systemic effects Short term, local effects Short term, Short term, local effects Short	Descri ptor PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Value 1 0,1 1 1 10 25 0,05 20 17,2 0,05 0,02 5 0,02 50 0,1	Unit mg/l mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/cm 2 mg/m3 mg/m3 mg/m3 mg/m3 mg/m3 mg/m3	Note	Consult Worke emploid (EU) = 0 (EU) = 0 (EU) = 0 (EU) = (EU) = (2019/) (13) =
Norkers / employees 4,4'-methylenediphe Area of application Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Norkers / employees Norkers / employees Norkers / employees	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - oral Human - oral Human - dermal Human - inhalation Human - inhalation Human - inhalation Human - dermal Human - inhalation Human - inhalation Human - inhalation Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, local effects Short term, local effects Long term, local effects Long term, local effects Short term, systemic effects Short term, local effect	Descri ptor PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Value 1 0,1 1 1 10 25 0,05 20 17,2 0,05 0,05 0,05 50 0,1 28,7 0,1	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/m3 mg/m3 mg/m3 mg/kg bw/d mg/m3 mg/m3 mg/kg bw/d mg/m3	Note	Consult Worke emploid (EU) = or 201 (B) = 1 (11) = WER (EU) = or 201 (B) = 1 (10) = BMK 20200) (EU) = Scientian 2019/ (2013) (13) =
Vorkers / employees 4.4-methylenediphe Area of application Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Consumer Vorkers / mployees Vorkers / mployees Vorkers / Vork	nyl diisocyanate Exposure route / Environmental compartment Environment - freshwater Environment - marine Environment - sewage treatment plant Environment - sewage treatment plant Environment - water, sporadic (intermittent) release Human - dermal Human - oral Human - oral Human - oral Human - dermal Human - inhalation Human - inhalation Human - dermal Human - dermal Human - inhalation	Long term, local effects Effect on health Short term, systemic effects Short term, systemic effects Short term, local effects Short term, local effects Long term, local effects Short term, systemic effects Short term, local effects Short term, Short term, local effects Short	Descri ptor PNEC PNEC PNEC PNEC PNEC DNEL DNEL DNEL DNEL DNEL DNEL DNEL DNEL	Value 1 0,1 1 1 10 25 0,05 20 17,2 0,05 0,05 0,05 0,05 0,05 0,05 0,05 0,02 50 0,1 28,7	Unit mg/l mg/kg dw mg/l mg/kg bw/d mg/m3 mg/kg bw/d mg/m3 mg/kg bw/d mg/m3 mg/kg bw/d mg/m3 mg/kg bw/d mg/m3	Note	Consu Consu Consu Worke emplo Sol (B) = I BMC 2020)) (EU) = Scient I (11) = I

Area of application	Exposure route / Environmental	Effect on health	Descri ptor	Valu e	Unit	Note
	compartment		51150	_		
	Environment - freshwater		PNEC	1	mg/l	
	Environment - marine		PNEC	0,1	mg/l	
	Environment - soil		PNEC	1	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	1	mg/Ī	
Consumer	Human - dermal	Short term, systemic effects	DNEL	25	mg/kg body weight/ day	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3	

Consumer	Haman olar	systemic effects	DIVEL	20	body weight/ day	
Consumer	Human - dermal	Short term, local effects	DNEL	17,2	mg/cm 2	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,02 5	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,02 5	mg/m3	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	50	mg/kg bw/day	
Workers /	Human - inhalation	Short term,	DNEL	0,1	mg/m3	
employees Workers /	Human - dermal	systemic effects Short term,	DNEL	28,7	mg/cm	
employees Workers /	Human - inhalation	local effects Short term,	DNEL	0,1	2 mg/m3	
employees Workers /	Human - inhalation	local effects Long term,	DNEL	0,05	mg/m3	
employees		systemic effects			0	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,05	mg/m3	
Diphenylmethanediis Area of application	ocyanate, isomeres and Exposure route /	homologues Effect on	Descri	Valu	Unit	Note
, and of approacher	Environmental compartment	health	ptor	e	0	
	Environment - freshwater		PNEC	1	mg/l	
	Environment - marine		PNEC	0,1	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	10	mg/l	
	Environment - sewage treatment plant		PNEC	1	mg/l	
	Environment - soil		PNEC	1	mg/kg	
Consumer	Human - oral	Short term, local effects	DNEL	20	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	0,05	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	0,05	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	0,02 5	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	0,02 5	mg/m3	
Consumer	Human - dermal	Short term, local effects	DNEL	17,2	mg/cm 2	
Consumer	Human - dermal	Short term, systemic effects	DNEL	25	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,1	mg/m3	
Workers /	Human - inhalation	Short term,	DNEL	0,1	mg/m3	
employees Workers /	Human - inhalation	systemic effects Long term,	DNEL	0,05	mg/m3	
employees Workers /	Human - inhalation	local effects Long term,	DNEL	0,05	mg/m3	
employees Workers /	Human - dermal	systemic effects Short term,	DNEL	28,7	mg/cm	
employees Workers /	Human - dermal	local effects Short term,	DNEL	50	2 mg/kg	
employees		systemic effects			bw/d	

Human - oral

 Image: Strength of the strengt of the strength of the strength of the strength of the s or 2019/1831/EU:

or 2019/1831/EU: (8) = Inhalable fraction (2004/37/CE, 2017/164/EU). (9) = Respirable fraction (2004/37/CE, 2017/164/EU). (11) = Inhalable fraction (2004/37/CE). (12) = Inhalable fraction. Respirable fraction in those Member States that implement, on the date of the entry into force of this Directive, a biomonitoring system with a biological limit value not exceeding 0,002 mg Cd/g creatinine in urine (2004/37/CE). I | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit - 15-minute reference period (EH40/2005 Workplace exposure limit Fourth Edition 2020)). (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU or 2019/1831/EL!

(EU) = Directive 91/322/EEV, 50/24/EO, 2000/04/EO, 2004/04/EO, 2004/04/EO, 2004/04/EO, 2004/04/EO, 2017/164/EU).
 (8) = Inhalable fraction (2004/37/EC, 2017/164/EU). (9) = Respirable fraction (2004/37/EC, 2017/164/EU).
 (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU).
 I BMGV = Biological monitoring guidance value (EH40/2005 Workplace exposure limits (Fourth Edition 2004))

2020)). (EU) = Directive 98/24/EC or 2004/37/EC or SCOEL (Biological Limit Value - BLV, Recommendation from the Scientific Committee on Occupational Exposure Limits (SCOEL)) |) Other information (EH40/2005 Workplace exposure limits (Fourth Edition 2020)): Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable

genetic damage. (EU) = Directive 91/322/EEC, 98/24/EC, 2000/39/EC, 2004/37/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU,

(13) = The substance can cause sensitisation of the skin and of the respiratory tract (98/24/EC, 2004/37/CE),
 (14) = The substance can cause sensitisation of the skin (2004/37/CE),
 (15) = Substantial contribution to the total body burden via dermal exposure possible.

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.

should be worn. Applies only if maximum permissible exposure values are listed here. Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques. These are specified by e.g. EN 14042. EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents'

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 ISO 374). Recommended



B) Page 5 of 14 Safety data sheet accord 2020/878) Revision date / version: 2 Replacing version dated Valid from: 25.11.2024 PDF print date: 28.11.20 KNAPP PM+ KLEBER G													
Replacing version dated Valid from: 25.11.2024 PDF print date: 28.11.20			lo 1907/200	06, Annex II (la	ast amended by Reg	gulation (EU)	Acute toxicity, by inhalation:	ATE	>20	mg/l/ 4h			Vapours, calculated value
	/ version: 19)015				Skin corrosion/irritation: Serious eye damage/irritation:						n.d.a. n.d.a.
		<u>ر</u>					Respiratory or skin sensitisation:						n.d.a.
Protective nitrile gloves (Minimum layer thickness).					Germ cell mutagenicity:						n.d.a.
>= 0,35 Permeation time (penetra	ation time) in	minutes:					Carcinogenicity: Reproductive toxicity:						n.d.a. n.d.a.
>= 480 The breakthrough times	determined i	n accordanc	e with EN 1	16523-1 were	not obtained under	practical	Specific target organ toxicity - single						n.d.a.
conditions. The recommended maxi			% of breakth	hrough time.			exposure (STOT-SE): Specific target organ						n.d.a.
Protective hand cream re	ecommende	1.					toxicity - repeated exposure (STOT-RE):						
Skin protection - Other: Protective working garme	ents (e.g. sa	iety shoes El	N ISO 2034	45, long-sleev	ed protective workin	g garments).	Aspiration hazard: Symptoms:						n.d.a. n.d.a.
Respiratory protection: Normally not necessary.							Propylene carbonate Toxicity / effect	Endpo	Value	Unit	Organis	Test method	Notes
If OES or MEL is exceed Filter A2 P2 (EN 14387), Observe wearing time lin	led. , code colour			quipment.			Acute toxicity, by oral route:	LD50	>5000	mg/k g	m Rat	OECD 401 (Acute Oral	Notes
Thermal hazards:							Acute toxicity, by	LD50	>2000	mg/k	Rabbit	Toxicity) OECD 402	
Not applicable	hand proto	ation No too					dermal route:			g		(Acute Dermal Toxicity)	
Additional information on In the case of mixtures, t information about the co Selection of materials de	the selection ntents.	has been ma	ade accord	ling to the kno	wledge available an	d the	Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Not irritar
Final selection of glove n degradation into account	naterial musi t.	t be made tal	king the bre	eakthrough tin			Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Irritant
Selection of a suitable gl varies from manufacture	r to manufac	turer.								1		Irritation/Corrosio n)	
In the case of mixtures, t before use.		-		-			Respiratory or skin sensitisation:				Human being	0500 474	No (skin contact)
The exact breakthrough and must be observed.	unie of the g	ove material	i can de rec	quested from t	are protective glove	manuracturer	Germ cell mutagenicity:					OECD 471 (Bacterial Reverse	Negative
8.2.3 Environment No information available		ure contro	ols				Germ cell					Mutation Test) OECD 474	Negative
	· .	Physic	al and	chemica	I properties	i i i i i i i i i i i i i i i i i i i	mutagenicity:					(Mammalian Erythrocyte Micronucleus	
9.1 Information on	n basic pł	nysical an			rties		Germ cell					Test) OECD 482 (Gen. Tox	Negative
Physical state: Colour:			Ac	ste, liquid.	ecification		mutagenicity:					DNA Damage and Repair,	
Odour: Melting point/freezing po			Th		mation available on							Unscheduled DNA Synthesis	
Boiling point or initial boil Flammability:	ling point an	boiling rang	- Th	ere is no infor	mation available on mation available on	this parameter.						in Mammalian Cells In Vitro)	
Lower explosion limit: Upper explosion limit: Flash point:			Th	ere is no infor	mation available on mation available on mation available on	this parameter.	Carcinogenicity:				Mouse	OECD 451 (Carcinogenicity	Negative
Auto-ignition temperature			Th	ere is no infor	mation available on mation available on mation available on	this parameter.	Reproductive toxicity:	NOAE	1000	mg/k	Rat	Studies) OECD 414	Negative
pH: Kinematic viscosity:	uie.		Su	ibstance react				L		g		(Prenatal Developmental	- grint
Solubility: Partition coefficient n-oct	tanol/water (l	og value):	Ins	soluble les not apply t			Specific target organ	NOEL	>5000	mg/k		Toxicity Study) OECD 408	
Vapour pressure: Density and/or relative de		-9,	Th		mation available on	this parameter.	toxicity - repeated exposure (STOT-RE),			g		(Repeated Dose 90-Day Oral	
Relative vapour density: Particle characteristics:				ere is no infor bes not apply t	mation available on o liquids.	this parameter.	oral:	1050	100	,		Toxicity Study in Rodents)	
9.2 Other information available							Specific target organ toxicity - repeated	NOEC	100	mg/m 3		OECD 413 (Subchronic	Dust, Mis
	-	ጋN 10: §	Stabilit	y and rea	activity		exposure (STOT-RE), inhalat.:					Inhalation Toxicity - 90-Day Study)	
				-			Aspiration hazard: Symptoms:					Siddy)	No breathing
10.1 Reactivity reacts with water							Symptoms.						difficultie
10.2 Chemical sta Stable with proper storage		ina											gastroint
10.3 Possibility of	hazardo		ons										disturban s,
Exothermic reaction pose Alcohols Amines	sible with:												dizziness nausea
Bases Acids							4,4'-methylenedipheny				-		
Water Developement of:							Toxicity / effect	Endpo int	Value	Unit	Organis m	Test method	Notes
Carbon dioxide CO2 formation in closed Pressure increase will re	sult in dange						Acute toxicity, by oral route:	LD50	>2000	mg/k g	Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)	Analogou conclusio
10.4 Conditions to Protect from humidity.							Acute toxicity, by dermal route:	LD50	>9400	mg/k g	Rabbit	OECD 402 (Acute Dermal	Analogou
Polymerisation due to hig T > ~ 260°C							Acute toxicity, by	ATE	11	mg/l/		Toxicity)	Vapours
10.5 Incompatible Acids	materials	\$					inhalation: Acute toxicity, by	ATE	1,5	4h mg/l/			Aerosol
Bases							inhalation: Acute toxicity, by	LC50	0,368	4h mg/l/	Rat	OECD 403	Aerosol,
Amines							inhalation:			4h		(Acute Inhalation Toxicity)	Does not conform
Amines Alcohols Water	ecompos used as dire	tion prod	lucts										with EU classifica
Amines Alcohols	FCTION	√ 11: To	xicolo	gical info	ormation		Acute toxicity, by inhalation:	LC50	1,5	mg/l/ 4h			n. Aerosol, Expert
Amines Alcohols Water 10.6 Hazardous de No decomposition when	201101					4070/0000	Skin				Rabbit	OECD 404	judgeme Skin Irrit
Amines Alcohols Water 10.6 Hazardous de No decomposition when		1 - 1 -				900000		1	1	1			
Amines Alcohols Water 10.6 Hazardous de No decomposition when S 11.1. Information of Possibly more informatio	on hazaro	effects, see S				5 12/2/2008	corrosion/irritation:					(Acute Dermal Irritation/Corrosio	2,
Amines Alcohols Water 10.6 Hazardous de No decomposition when S 11.1. Information e	on hazaro on on health GLUE COLL Endpo	effects, see S		(classification		Notes	corrosion/irritation: Respiratory or skin				Guinea	(Acute Dermal Irritation/Corrosio n)	2, Analogou
Amines Alcohols Water 10.6 Hazardous de No decomposition when S 11.1. Information Possibly more informatio KNAPP PM+ KLEBER C	on hazaro	effects, see S A	Section 2.1	(classification	i).						Guinea pig	Irritation/Corrosio	2, Analogou conclusio



Replacing version dated /alid from: 25.11.2024 PDF print date: 28.11.20 (NAPP PM+ KLEBER G	24		0015			
Respiratory or skin ensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Skin Sens. 1
Germ cell nutagenicity:				Salmonel la typhimuri um	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
Serm cell hutagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negativem ale
Germ cell hutagenicity:				Rat	OECD 489 (In Vivo Mammalian Alkaline Comet	Negativem ale
Carcinogenicity:				Rat	Assay) OECD 453 (Combined Chronic Toxicity/Carcinog	Aerosol, Analogous conclusion, Carc. 2
eproductive toxicity:	NOAE L	4-12	mg/m 3	Rat	enicity Studies) OECD 414 (Prenatal Developmental	Aerosol, Analogous conclusion
pecific target organ oxicity - single xposure (STOT-SE),					Toxicity Study)	May cause respiratory irritation.
ihalative: pecific target organ ixicity - repeated xposure (STOT-RE), ihalat.:	LOAE L	1	mg/m 3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	Aerosol, Analogous conclusion, Target organ(s): respiratory
pecific target organ pxicity - repeated xposure (STOT-RE), ihalat.:	NOAE L	0,2	mg/m 3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	system Aerosol, Analogous conclusion, Target organ(s): respiratory
-(p-isocyanatobenzyl) oxicity / effect	phenyl isod Endpo	cyanate Value	Unit	Organis	Test method	system
cute toxicity, by oral oute:	int LD50	>2000	mg/k g	m Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL	Analogous conclusion
cute toxicity, by ermal route:	LD50	>9400	mg/k g	Rabbit	TOXICITY) OECD 402 (Acute Dermal Toxicity)	Analogous conclusion
cute toxicity, by halation:	LC50	0,387	mg/l/ 4h	Rat	TONOLY)	Aerosol, Does not conform with EU classificatio
cute toxicity, by halation:	ATE	1,5	mg/l/ 4h			n. Aerosol, Expert judgement.
cute toxicity, by halation: kin	ATE	11	mg/l/ 4h	Rabbit	OECD 404	Vapours Skin Irrit.
orrosion/irritation:					(Acute Dermal Irritation/Corrosio n)	2, Analogous conclusion
erious eye amage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Not irritant, Analogous conclusion, Does not conform with EU classificatio
espiratory or skin ensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	n. Yes (skin contact), Analogous conclusion
espiratory or skin ensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact), Analogous conclusion
espiratory or skin ensitisation:				Guinea pig		Yes (inhalation), Analogous conclusion
erm cell nutagenicity:				Salmonel la typhimuri um	OECD 471 (Bacterial Reverse Mutation Test)	Negative, Analogous conclusion
erm cell utagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusion male
arcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinog	Aerosol, Analogous conclusion, Carc. 2
	NOAE	4-12	mg/k	Rat	enicity Studies) OECD 414	Aerosol,

Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	LOAE L	1	mg/m 3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	Aerosol, Analogous conclusion, Target organ(s): respiratory system
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAE L	0,2	mg/m 3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	system Aerosol, Analogous conclusion, Target organ(s): respiratory
Symptoms:						system mucous membrane irritation, breathing difficulties, coughing, asthmatic symptoms
Diphenylmethanediiso Toxicity / effect	Endpo	Value	Unit	Organis	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/k	m Rat	OECD 401 (Acute Oral	
Acute toxicity, by dermal route:	LD50	>5000	g mg/k g	Rabbit	Toxicity) OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	0,31- 0,49	mg/l/ 4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Does not conform with EU classificatio n.
Acute toxicity, by inhalation:	ATE	11	mg/l/ 4h			Vapours
Acute toxicity, by inhalation:	ATE	1,5	mg/l/ 4h			Aerosol
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Eye Irrit. 2
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (skin contact), Analogous conclusion
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Yes (skin contact)
Respiratory or skin sensitisation:				Rat		Yes (inhalation)
Germ cell mutagenicity:				Rat	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative, Analogous conclusion
Germ cell mutagenicity:				Salmonel la typhimuri um	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	Aerosol, Limited evidence of a carcinogeni c effect.
Reproductive toxicity:	NOAE L	4	mg/m 3	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Aerosol, Negative
Specific target organ toxicity - single						Target organ(s):
exposure (STOT-SE), inhalative:						respiratory system, May cause respiratory irritation.
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat: Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	LOAE L	1	mg/m 3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinog	Target organ(s): respiratory system Aerosol, Analogous conclusion
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAE L	0,2	mg/m 3	Rat	enicity Studies) OECD 453 (Combined Chronic Toxicity/Carcinog	Aerosol, Analogous conclusion
Symptoms:					enicity Studies)	breathing difficulties
Titanium dioxide (in po	wder form	containing 1	% or more	of particles	with aerodynamic di	
μm) Toxicity / effect	Endpo	Value	Unit	Organis	Test method	Notes
Acute toxicity, by oral route:	int LD50	>5000	mg/k g	m Rat	OECD 425 (Acute Oral Toxicity - Up- and-Down	
Acute toxicity, by	LD50	>5000	mg/k	Rabbit	Procedure)	
dermal route: Acute toxicity, by	LC50	>5,09-	g mg/l/	Rat		
inhalation: Skin corrosion/irritation:		6,8	4h	Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio	Not irritant
L	1	L			n)	



B) Page 7 of 14 Safety data sheet accord 2020/878) Revision date / version: : Replacing version dated Vaild from: 25.11.2024 PDF print date: 28.11.20	25.11.2024 / version: 19 24	/0016 9.10.2022 /0)6, Annex II (la	st amended by Regul	ation (EU)	Reproductive toxicity:	L	4-12	mg/m 3	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	No indicatior of such a effect., Aerosol, Analogou conclusic
KNAPP PM+ KLEBER G Serious eye damage/irritation:		A		Rabbit	OECD 405 (Acute Eye Irritation/Corrosio	Not irritant, Mechanical irritation	Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAE L	0,2	mg/m 3	Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	Aerosol, Target organ(s): respirator system,
Respiratory or skin sensitisation:				Mouse	n) OECD 429 (Skin Sensitisation - Local Lymph	possible. Not sensitizisin g	Specific target organ toxicity - repeated	LOAE L	1	mg/m 3	Rat	OECD 453 (Combined	Analogou conclusio Aerosol, Target
Respiratory or skin sensitisation: Germ cell				Guinea pig Mouse	Node Assay) OECD 406 (Skin Sensitisation) OECD 474	No (skin contact) Negative	exposure (STOT-RE), inhalat.:					Chronic Toxicity/Carcinog enicity Studies)	organ(s): respirato system, Analogou
mutagenicity:				Wouse	(Mammalian Erythrocyte Micronucleus Test)	Negative	Symptoms:						conclusio respirato distress, coughing
Germ cell mutagenicity:				Mammali an	OECD 473 (In Vitro Mammalian Chromosome	Negative							mucous membrai
Germ cell				Salmonel	Aberration Test) (Ames-Test)	Negotivo	4,4'-methylenedipheny Toxicity / effect		ate Value	Unit	Organic	Test method	Notes
mutagenicity:				la typhimuri um	(Ames-rest)	Negative	Acute toxicity, by oral route:	Endpo int LD50	>10000	mg/k g	Organis m Rat	OECD 401 (Acute Oral	Notes
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative	Acute toxicity, by oral route:	LD50	>2000	mg/k g	Rat	Toxicity) Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)	
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse	Negative	Acute toxicity, by dermal route:	LD50	>9400	mg/k g	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Reproductive toxicity (Developmental toxicity):				Rat	Mutation Test) OECD 414 (Prenatal Developmental	No indications of such an	Acute toxicity, by inhalation: Acute toxicity, by	LC50	>2,24	mg/l/ 4h mg/l/	Rat	OECD 403 (Acute Inhalation Toxicity) OECD 403	Aerosol Does no
Specific target organ toxicity - single exposure (STOT-SE):					Toxicity Study)	effect. Not irritant (respiratory tract).	inhalation:	2030	0,300	4h	nai	(Acute Inhalation Toxicity)	conform with EU classifica n.
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAE L	3500	mg/k g/d	Rat		(90d)	Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Irritant, Analogo conclusio
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAE C	10	mg/m 3	Rat		(90d)	Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Irritant, Analogo conclusi
Symptoms:						mucous membrane irritation, coughing,	Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Yes (ski contact) Analogo conclusi
						respiratory distress,	Respiratory or skin sensitisation:				Guinea pig		Yes (inhalatio
						drying of the skin.	Germ cell mutagenicity:				Rat	OECD 474 (Mammalian	Negative
2,2'-methylenedipheny Toxicity / effect	Endpo	ite Value	Unit	Organis	Test method	Notes						Erythrocyte Micronucleus Test)	
Acute toxicity, by oral route:	LD50	>2000	mg/k g	m Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL	Analogous conclusion	Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative Analogo conclusi
Acute toxicity, by dermal route:	LD50	>9400	mg/k g	Rabbit	TOXICITY) OECD 402 (Acute Dermal Toxicity)	Analogous conclusion	Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinog	Analogo conclusi Limited evidence
Acute toxicity, by inhalation:	LC50	0,527	mg/l/ 4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Does not conform with EU	Reproductive toxicity:	NOAE	4	mg/m	Rat	enicity Studies) OECD 414	of a carcinog c effect. Negative
Acute toxicity, by	ATE	1,5	mg/l			classificatio n. Aerosol,		L		3		(Prenatal Developmental Toxicity Study)	Analogo conclusi
inhalation: Acute toxicity, by inhalation:	ATE	11	mg/l/ 4h			Expert judgement Vapours	Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Irritation the respirato tract
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Skin Irrit. 2	Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Irritation the respirato tract,
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Slightly irritant							Target organ(s) respirato system
Respiratory or skin sensitisation:				Guinea pig		Yes (inhalation), Analogous conclusion	Symptoms:						respirato distress coughin mucous
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation -	Yes (skin contact)							membra irritation
Germ cell mutagenicity:				Salmonel la	Local Lymph Node Assay) OECD 471 (Bacterial	Negative	Silicon dioxide Toxicity / effect	Endpo	Value	Unit	Organis m	Test method	Notes
Germ cell				typhimuri um Rat	Reverse Mutation Test) OECD 474	Negative,	Acute toxicity, by dermal route:	LD50	> 2000	mg/k g	Rat	OECD 402 (Acute Dermal Toxicity)	
mutagenicity:					(Mammalian Erythrocyte Micronucleus Test)	Analogous conclusion	Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosio n)	Not irrita
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinog enicity Studies)	Analogous conclusion, Aerosol, Carc. 2	Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosio n)	Not irrita



Bit In 1979 2000 Control 1989 2000 Control 1980 2000 Con	B) Page 8 of 14 Safety data sheet accord 2020/878) Revision date / version: : Replacing version dated Valid from: 25.11.2024	25.11.2024	/ 0016		06, Annex II (la	st amended by Regul	ation (EU)	Acute toxicity, by inhalation:				mg/l/ 4h		(Acute Inhalation Toxicity)	Aerosol, Does not conform with EU classificat n.
Description Description Allow 1.5 mail Performance Performance Addition based Image: construction Image: constru	PDF print date: 28.11.20								ATE	1	1				Vapours
m.degree/er			4					Acute toxicity, by	ATE	1,	,5	mg/l/			Dusts or
Appendix Decampants V						(Bacterial Reverse	Negative	Skin				4h	Rabbit	(Acute Dermal	mist Skin Irrit.
	Aspiration hazard:						No	Sorious ava		_			Pobbit	n)	Mild irritor
Discole Discole Note Page Had Regulation FLG Amazyane Acces Lobid Add Page Regulation FLG Amazyane		Endpo		Unit		Test method	Notes						Kabbit	(Acute Eye Irritation/Corrosio	Wild Imta
According of your by and your by and your by by and your by and you			>2000			440/2008 B.1 (ACUTE ORAL		sensitisation: Respiratory or skin					pig	OECD 406 (Skin	
Deck Source Loss of the sector Part Source Deck Source Deck Source Source <th< td=""><td></td><td>LD50</td><td>>9400</td><td></td><td>Rabbit</td><td>OECD 402</td><td></td><td>Germ cell</td><td></td><td></td><td></td><td></td><td></td><td>Regulation (EC)</td><td>Analogou</td></th<>		LD50	>9400		Rabbit	OECD 402		Germ cell						Regulation (EC)	Analogou
Sum of the section of the se	Acute toxicity, by	LC50	0,387	mg/l/	Rat		Does not conform	matagemony.					typhimuri	B.13/B.14 (REVERSE MUTATION	Negative
Bit Bit <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>classificatio</td> <td>Corm coll</td> <td></td> <td></td> <td></td> <td></td> <td>Pot</td> <td>BACTERIA)</td> <td>Negotivo</td>							classificatio	Corm coll					Pot	BACTERIA)	Negotivo
Regiments and methods and serial status and					Rabbit	(Acute Dermal	Irritant, Analogous						Rat	(Mammalian Erythrocyte Micronucleus	Analogou conclusio
samutation: Image in the image	Respiratory or skin				Mouse		Sensitising	Carcinogenicity:		1		mg/m	Rat	OECD 453	Positive
Regination of kind manufacture No.64 U.2 mp Res Oricle 14 posted manufacture No.94 Gerine of manufacture I I I I I Reproductive manufacture I I I I I Reproductive manufacture I I Reproductive manufacture I I I Reproductive manufacture I I Reproductive manufacture I I Reproductive manufacture I I Reproductive manufacture Reproductive manufacture Reproductive manufacture I I Reproductive manufacture I Reproductive manufacture Reproductive manufacture I Reproductive manufacture Reproductive manufacture I Reproductive manufacture I Reproductive manufacture I Reproductive manufacture Reproductive	sensitisation:					Local Lymph	contact), Analogous					3		Chronic Toxicity/Carcinog	
Germ call marganizity: L L L L Rate Decision Marganizity: Negative Marganizity: Rate Marganizity: Marganizity: L Rate Decision Marganizity: Negative Marganizity: Negative Marganizit							Yes (inhalation), Analogous	Reproductive toxicit		E 1:	2		Rat	OECD 414 (Prenatal Developmental	Negative, Aerosol
main main <th< td=""><td></td><td></td><td></td><td> </td><td></td><td></td><td>Negative,</td><td></td><td>iy 🛛</td><td>4</td><td></td><td></td><td>Rat</td><td>OECD 414</td><td>Negative</td></th<>							Negative,		iy 🛛	4			Rat	OECD 414	Negative
Reproductive toxoly: Construction Const						Reverse Mutation Test)	conclusion	toxicity):	ty I			5	Rat	Developmental Toxicity Study)	Negative
Lesson Lesson Cathor Cathor<						Chronic Toxicity/Carcinog	conclusion, Limited evidence							Developmental	Irritation
Scale Line Line <thline< th=""> Line Line <th< td=""><td>Reproductive toxicity:</td><td></td><td></td><td></td><td></td><td></td><td>carcinogeni c effect.</td><td>toxicity - single exposure (STOT-SI</td><td>Ξ):</td><td></td><td></td><td></td><td></td><td></td><td>the respirator tract</td></th<></thline<>	Reproductive toxicity:						carcinogeni c effect.	toxicity - single exposure (STOT-SI	Ξ):						the respirator tract
biology-snight exception (STOT-RE), which we have a sequence (STOT-RE): which we have a sequence (STOT	Specific target organ					Developmental	Target	toxicity - single exposure (STOT-SI							Target organ(s): respirator
Symptoms: Loss of the second s	toxicity - single exposure (STOT-SE),						organ(s): respiratory tract,		n NOE		2	ma/k		0ECD 453	May caus respirator irritation.
Calciance arbonate Calciance arbonate Calciance arbonate Notesting / field Calciance arbonate Lb50 >2000 mg/k Rat Test method Notesting / field Image / field Notesting / field <	Symptoms:						asthmatic symptoms, mucous	toxicity - repeated			,2			(Combined Chronic Toxicity/Carcinog	
Calcium carbonate Unit Organic Test method Notes Toxicity / ffect Indo Value Unit Organic Feator Acute toxicity, by oral LD50 2000 mg/k Rat OECD 420 Acute toxicity, by oral LD50 2500 mg/k Rat OECD 420 Acute toxicity, by oral LD50 2500 mg/k Rat OECD 402 Acute toxicity, by oral LD50 2500 mg/k Rat OECD 402 Acute toxicity, by oral Acute toxicity, by oral LD50 230 mg/k Rat OECD 402 Acute toxicity, by oral Acute toxicity, oral <														enicity Studies)	
int m m mass Acute toxicity, by oral LD50 >2000 gk Rate OECD 402 (Acute Orali toxicity, Fike Dose Procedure) uone: Image: State Stat	Calcium carbonate							Symptoms:							coughing
route:	Toxicity / effect		Value	Unit	Organis m	Test method	Notes								headache nausea
Acute toxicity, by order LD50 >5000 mg/k g Rat DOC 1000000000000000000000000000000000000		LD50	>2000		Rat	(Acute Oral toxicity - Fixe									and vomiting. dizziness breathing
Acute toxicity, by dermal route: LD50 >2000 mg// g Rat OECD 402 (Acute barmal Toxicity) Acute toxicity, by inhalation: LC50 >3 mg// 4h Rat OECD 403 (Acute barmal tritiation/Crossicity) Interface Interf		LD50	>5000	mg/k	Rat										difficulties laryngeal
Actual binalation: Point of the status Point of the status </td <td>Acute toxicity, by</td> <td>LD50</td> <td>>2000</td> <td></td> <td>Rat</td> <td>(Acute Dermal</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>oedema, abdomina pain,</td>	Acute toxicity, by	LD50	>2000		Rat	(Acute Dermal									oedema, abdomina pain,
Skin OECD 404 Not irritant corrosion/irritation: Rabbit OECD 404 Not irritant Serious eye n) Not irritant, Acute Eye Init Init Does Serious eye Carco Corrosio Not irritant, OECD 405 Not irritant, Carco DecD 405 Not irritant, Respiratory or skin sensitisation: Carco Corrosio Not irritant, No (skin OECD 405 Not irritant, Germ cell in vitro Negative, administered d as Ca-tactate No (skin Other information Int Int Int Gerrodell Int Int Int Negative, administered d as Ca-tactate Sectored administered d as Ca-tactate Notes Toxicity / effect Endpo Value Unit Organis Test method Notes Toxicity / effect Endpo Value Unit Organis Test Notes Toxicity / effect Endpo Value Unit Organis Test Notes Acute toxicity, by oral Lb50 >10000 mg/k Rat OECD 401 Indatina Indatina		LC50	>3		Rat	OECD 403 (Acute Inhalation		11.2. Informati	on on oth	er har	ards				diarrhoea
Serious eye damage/irritation: n) nim <					Rabbit	OECD 404 (Acute Dermal	Not irritant	KNAPP PM+ KLEE	BER GLUE C	OLLA		Unit		Test method	Notes
Image: Service of the service of th					Rabbit	n) OECD 405							m		Does not apply to
sensitisation: contact) Germ cell mutagenicity: Carcinogenicity	-					Irritation/Corrosio	irritation possible.	Other information:							No other relevant
mutagenicity: Image in the image. The image in the	sensitisation:					la citas	contact)								informatio available
Carcinogenicity: Image: Section of the sectin of the section of the section of the section of the section of t	mutagenicity:					in vitro	-								on advers effects on
Reproductive toxicity: Image: Section 2.1 (classification). Diphenylmethanediisocyanate, isources and homologues Megative, administer d as Caccarbonate Diphenylmethanediisocyanate, isources and homologues Test method Notes int Test method Acute toxicity, by oral route: Ubbo >9400 mg/k Rat OECD 401 Acute toxicity, by demain route: Ubbo >9400 mg/k Ratbit OECD 402 Acute toxicity, by demain route: Ubbo >9400 mg/k Rabit OECD 402 Acute toxicity, by demain route: Ubbo >9400 mg/k Rabit OECD 402 Acute toxicity, by demain route: Ubbo >9400 mg/k Rabit OECD 402 Acute toxicity, by demain route: Ubbo >9400 mg/k Rabit OECD 402 Acute toxicity, by demain route: Ubbo >9400 mg/k Rabit OECD 402	Carcinogenicity:						administere d as Ca-		SEC		12. E	cologi	cal infor	mation	health.
Image: Constraint of the state of	Reproductive toxicity:						Negative, administere	Description of the							
Diphenylmethanediisocyanate, isomeres and homologues Diphenylmethanediisocyanate, isomeres and homologues t e e e method Toxicity / effect Endpo int Unit Organis m Test method Notes 12.1. Toxicity to fish: 12.1. To								KNAPP PM+ KLEE	BER GLUE C	OLLA					
Toxicity / effect Endpo int Value Unit Organis m Test method Notes 12.1. Toxicity to fish: 12.1. Toxicity to 13.1. Toxicity to n.d.a. Acute toxicity, by oral route: LD50 >1000 mg/k Rat OECD 401 (Acute Oral Toxicity) 12.1. Toxicity to									Endpoin t			Unit	Organism		Notes
Acute toxicity, by oral route: LD50 >10000 mg/k Rat OECD 401 12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: n.d.a. Acute toxicity, by LD50 >9400 mg/k Rabbit OECD 402 n.d.a. dermal route: g (Acute Dermal (Acute Dermal 12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia: 12.1. Toxicity to daphnia:		Endpo			Organis		Notes								n.d.a.
dermal route: g (Acute Dermal	route:	LD50		g	Rat	(Acute Oral Toxicity)		12.1. Toxicity to daphnia: 12.1. Toxicity to							
		LD50	>9400		Rabbit			algae:							



2020/878) Revision date / vers Replacing version o Valid from: 25.11.20 PDF print date: 28. KNAPP PM+ KLEB 12.2.	dated / versior 024 11.2024	n: 19.10.2		15			With water								any organically bound halogens which can contribute to the AO2 value in
Persistence and degradability:							at the interface, transforms								waste water.
							slowly with formation	4,4'-methylenedipl Toxicity / effect	Endpoin	Tim	Valu	Unit	Organism	Test	Notes
							of CO2 into a firm, insoluble reaction product	12.1. Toxicity to fish:	t LC50	e 96h	e >10 00	mg/l	Brachydanio rerio	method OECD 203 (Fish, Acute Toxicity Test)	Analogous
							with a high melting point (polycarba mide).	12.1. Toxicity to daphnia:	EC50	24h	>10 00	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati on Test)	Analogous conclusior
							According to experience available	12.1. Toxicity to daphnia:	NOEC/N OEL	21d	>10	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproductio	Analogous conclusior
							to date, polycarbam ide is inert and non- degradable	12.1. Toxicity to algae:	ErC50	72h	>16 40	mg/l	Desmodesm us subspicatus	n Test) OECD 201 (Alga, Growth Inhibition	Analogous conclusior
12.3. Bioaccumulative							n.d.a.	12.2. Persistence and		28d	0	%		Test) OECD 302 C (Inherent	Not biodegrad
potential: 12.4. Mobility in soil:							n.d.a.	degradability:						Biodegradab ility - Modified	ble, With water at the
12.5. Results of PBT and vPvB							n.d.a.							MITI Test (II))	interface, transforms
assessment 12.6. Endocrine disrupting properties: 12.7. Other adverse effects:							Does not apply to mixtures. No information available on other adverse effects on the								slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarba
Other							environmen t. DOC-								mide)., According to
information: Other information:	AOX		0	%			elimination degree(co mplexing organic substance) >= 80%/28d: No According to the								experience available to date, polycarbar ide is inert and non- degradable ., Analogous
							recipe, contains no AOX.	12.3. Bioaccumulative potential:	Log Pow		4,51 -5,2 2				A notable biological accumulat
Propylene carbon Toxicity / effect	Endpoin			Unit	Organism	Test	Notes								on potential
12.1. Toxicity to fish:	t LC50	e 96h	e >10 00	mg/l	Cyprinus caprio	method 92/69/EC									has to be expected (LogPow >
12.1. Toxicity to daphnia:	EC50	48h	>10 00	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati		12.3. Bioaccumulative potential:	BCF	28d	200		Cyprinus caprio	IUCLID Chem. Data Sheet	3). Not to be expected
12.1. Toxicity to algae:	EC50	72h	>90 0	mg/l	Desmodesm us	on Test) OECD 201 (Alga,		12.4. Mobility in soil:	H (Henry)		0,02 29	Pa*m 3/mol		(ESIS)	
					subspicatus	Growth Inhibition Test)		12.5. Results of PBT and vPvB assessment							No PBT substance No vPvB
12.2. Persistence and degradability:			83,5 -87- 7	%		OECD 301 B (Ready Biodegradab ility - Co2 Evolution	Readily biodegrada ble29d	Toxicity to bacteria:	EC50	3h	>10 0	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration	substance Analogous conclusior
12.2. Persistence and degradability:	DOC	14d	90- 100	%		Test) OECD 301 A (Ready Biodegradab ility - DOC Die-Away								Inhibition Test (Carbon and Ammonium Oxidation))	
12.3. Bioaccumulative potential:	Log Pow		- 0,41			Test)	Bioaccumul ation is unlikely (LogPow <	Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Lactuca sativa	OECD 208 (Terrestrial Plants, Growth Test)	Analogous conclusior
12.5. Results of PBT and vPvB							1)., calculated value No PBT substance,	Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Avena sativa	OECD 208 (Terrestrial Plants, Growth Test)	Analogous conclusior
assessment Toxicity to	EC10	16h	740	mg/l	Pseudomon	DIN 38412	No vPvB substance	Other information:	AOX						Does not contain any
bacteria:		101	0		as putida	T.8									any organically bound halogens which can contribute to the AO2 value in waste water.



B) Page 10 of 14 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878) Revision date / version: 25.11.2024 / 0016 Replacing version dated / version: 19.10.2022 / 0015 Valid from: 25.11.2024 PDF print date: 28.11.2024 RNAPP PM+ KLEBER GLUE COLLA							Toxicity to bacteria:	EC50	3h	>10 0	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium	Analogou conclusio	
Other nformation:							According to experience available to date, polycarbam	Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Avena sativa	Oxidation)) OECD 208 (Terrestrial Plants, Growth Test)	Analogou conclusio
							ide is inert and non- degradable ., With water at	Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Lactuca sativa	OECD 208 (Terrestrial Plants, Growth Test)	Analogou conclusio
							the interface, transforms slowly with formation	Toxicity to annelids:	NOEC/N OEL	14d	>10 00	mg/k g	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	Analogou conclusio
							of CO2 into a firm,	Diphenylmethane		, isomere	es and ho	mologues	3		
							insoluble reaction	Toxicity / effect	Endpoin t	Tim e	Valu e	Unit	Organism	Test method	Notes
							product with a high melting point	12.1. Toxicity to fish:	LC50	96h	>10 00	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
Foxicity to annelids:	NOEC/N OEL	14d	> 100 0	mg/k g	Lumbricus terrestris	OECD 207 (Earthworm, Acute	(polycarba mide). Analogous conclusion	12.1. Toxicity to daphnia:	NOEC/N OEL	21d	>=1 0	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproductio n Test)	
			0			Toxicity		12.1. Toxicity to	EC50	24h	>10	mg/l	Daphnia	OECD 202	
Foxicity to annelids:	EC50	14d	>10 00	mg/k g	Eisenia foetida	Tests) OECD 207 (Earthworm, Acute	Analogous conclusion	daphnia:			00		magna	(Daphnia sp. Acute Immobilisati on Test)	
						Toxicity Tests)		12.1. Toxicity to algae:	ErC50	72h	>16 40	mg/l	Scenedesm us	OECD 201 (Alga,	
-(p-isocyanatobe oxicity / effect	enzyl)phenyl i Endpoin	socyana Tim	te Valu	Unit	Organism	Test	Notes						subspicatus	Growth Inhibition	
-	t LC50	е	е		-	method OECD 203		12.2.		28d	0	%	activated	Test) OECD 302	Not
2.1. Toxicity to sh: 2.1. Toxicity to	EC50	96h 24h	>10 00 >10	mg/l	Brachydanio rerio Daphnia	(Fish, Acute Toxicity Test) OECD 202	Analogous conclusion Analogous	Persistence and degradability:					sludge	C (Inherent Biodegradab ility - Modified MITI Test	biodegra ble, Accordir to experier
aphnia:	EC30	241	00	mg/l	magna	(Daphnia sp. Acute Immobilisati on Test)	conclusion							(II))	available to date, polycart ide is in
2.1. Toxicity to aphnia:	NOEC/N OEL	21d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati	Analogous conclusion								and non degrada ., With water at
2.1. Toxicity to algae:	ErC50	72h	>16 40	mg/l	Scenedesm us subspicatus	on Test) OECD 201 (Alga, Growth Inhibition	Analogous conclusion								the interface transforr slowly w formatio
2.2. Persistence and		28d	0	%		Test) OECD 302 C (Inherent	Not								of CO2 into a fir insoluble
legradability:						Biodegradab	biodegrada ble,								reaction
						ility - Modified MITI Test (II))	Analogous conclusion, According to experience								product with a h melting point (polycar
							available to date, polycarbam ide is inert and non-	12.3. Bioaccumulative potential:	BCF	42d	<14		Cyprinus carpio	OECD 305 (Bioconcentr ation - Flow- Through	Not to b expecte
							degradable ., With water at the	12.5. Results of PBT and vPvB assessment						Fish Test)	No vPvE substan No PBT
							interface, transforms	Toxicity to	EC50	3h	>10	mg/l	activated	OECD 209	substan
							slowly with formation of CO2 into a firm, insoluble reaction product	bacteria:			0	5	sludge	(Activated Sludge, Respiration Inhibition Test (Carbon and	
							with a high melting							Ammonium Oxidation))	
2.3.	BCF	28d	200		Cyprinus	OECD 305	point (polycarba mide). Not to be	Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Avena sativa	OECD 208 (Terrestrial Plants, Growth	
ioaccumulative otential:				D-+	caprio	(Bioconcentr ation - Flow- Through Fish Test)	expected, Analogous conclusion	Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Lactuca sativa	Test) OECD 208 (Terrestrial Plants, Crowth	
2.4. Mobility in bil:	H (Henry)		0,02 29	Pa*m 3/mol				Tovicity to	NOTON	4 4 -1	10	m~//-	Luphalass	Growth Test)	
2.5. Results of BT and vPvB ssessment							No PBT substance, No vPvB substance	Toxicity to annelids:	NOEC/N OEL	14d	>10 00	mg/k g	Lumbricus terrestris	OECD 207 (Earthworm, Acute Toxicity Tests)	
								Titanium dioxide	(in powder fo	rm conta	inina 1 %	or more	of particles with		ameter
								μm) Toxicity / effect	Endpoin	Tim	Valu	Unit	Organism	Test	Notes
									t	e	e			method	



B) Page 11 of 14 Safety data sheet a 2020/878) Revision date / vers	- sion: 25.11.20	24 / 001	6		8, Annex II (last a	mended by Regul	lation (EU)	12.5. Results of PBT and vPvB assessment							No PBT substanc No vPvB substanc
Replacing version d Valid from: 25.11.20 PDF print date: 28.1 KNAPP PM+ KLEB	dated / versior 024 11.2024	n: 19.10.2		15				Toxicity to bacteria:	EC50	3h	>10 0	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition	Analogou conclusio
12.1. Toxicity to fish:	LC50 LC50	96h	>10 0	mg/l	Oncorhynch us mykiss	OECD 203 (Fish, Acute Toxicity Test) OECD 202								Test (Carbon and Ammonium	
12.1. Toxicity to daphnia:		48h	>10 0	mg/l	Daphnia magna	(Daphnia sp. Acute Immobilisati on Test)		Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Avena sativa	Oxidation)) OECD 208 (Terrestrial Plants, Growth	Analogo conclusi
12.1. Toxicity to algae: 12.2.	EC50	72h	16	mg/l	Pseudokirch neriella subcapitata	U.S. EPA- 600/9-78- 018	Not	Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Lactuca sativa	Test) OECD 208 (Terrestrial Plants,	Analogo conclusi
Persistence and degradability:	DOF	40.1	0.0				relevant for inorganic substances	Toxicity to annelids:	NOEC/N OEL	14d	>10 00	mg/k g	Eisenia foetida	Growth Test) OECD 207 (Earthworm, Acute	Analogo conclusi
12.3. Bioaccumulative potential:	BCF	42d	9,6				Not to be expected							Toxicity Tests)	
12.3. Bioaccumulative potential:	BCF	14d	19- 352				Oncorhync hus mykiss	4,4'-methylenedip Toxicity / effect	henyl diisocy Endpoin t	anate Tim e	Valu e	Unit	Organism	Test method	Notes
12.4. Mobility in soil:							Negative	12.1. Toxicity to fish:	LC50	96h	>10 00	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute	
12.5. Results of PBT and vPvB assessment			50				No PBT substance, No vPvB substance	12.1. Toxicity to fish:	LC0	96h	>10 00	mg/l	Brachydanio rerio	Toxicity Test) OECD 203 (Fish, Acute	Analogo conclusi
Toxicity to bacteria: Toxicity to	LC0	24h	>50 00 >10	mg/l mg/l	Escherichia coli Pseudomon			12.1. Toxicity to	EC50	24h	>10	mg/l	Daphnia	Toxicity Test) OECD 202	Analogo
Toxicity to annelids:	NOEC/N OEL		>10 000 >10 00	mg/k	as fluorescens Eisenia foetida			daphnia:	2000	241	00	ilig/i	magna	(Daphnia sp. Acute Immobilisati on Test)	conclusi
Water solubility: 2,2'-methylenediph		anato	00	y	locida		Insoluble20 °C	12.1. Toxicity to algae:	EC50	72h	1,5	mg/l		OECD 201 (Alga, Growth	
Toxicity / effect	Endpoin t	Tim	Valu e	Unit	Organism	Test method	Notes	12.1. Toxicity to	EC50	72h	164	mg/l	Desmodesm	Inhibition Test) OECD 201	Analogo
12.1. Toxicity to fish:	LC50	96h	>10 00	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	Analogous conclusion	algae:			0	0	us subspicatus	(Alga, Growth Inhibition Test)	conclusi
12.1. Toxicity to daphnia:	NOEC/N OEL	21d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati on Test)	Analogous conclusion	12.1. Toxicity to algae:	NOEC/N OEL	72h	164 0	mg/l	Desmodesm us subspicatus	OECD 201 (Alga, Growth Inhibition Test)	Analogo conclusi
12.1. Toxicity to daphnia:	EC50	24h	>10 00	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati on Test)	Analogous conclusion	12.2. Persistence and degradability:		28d	0	%	activated sludge	OECD 302 C (Inherent Biodegradab ility - Modified	With wa at the interface transfor slowly w
12.1. Toxicity to algae:	EC50	72h	>16 40	mg/l	Scenedesm us subspicatus	OECD 201 (Alga, Growth Inhibition	Analogous conclusion							MITI Test (II))	formatic of CO2 into a fir insolubl
12.2. Persistence and degradability:		28d	0	%	activated sludge	Test) OECD 302 C (Inherent Biodegradab ilifty - Modified MITI Test (II))	With water at the interface, transforms slowly with formation of CO2 into a firm, insoluble reaction product with a high melting point (polycarba mide).,								reactior product with a h melting point (polycan dice)., Accordi to experie availabl to date, polycan ide is in and nor degrada
							According to experience available to date, polycarbam ide is inert and non- degradable , Analogous conclusion	12.2. Persistence and degradability:	BOD	28d	0	%		OECD 302 C (Inherent Biodegradab ility - Modified MITI Test (II))	With wa at the interfact transfor slowly w formatic of CO2 into a fil insolubl reaction product with a h melting
12.3. Bioaccumulative potential:	Log Pow		5,22				A notable biological accumulati on potential has to be expected (LogPow > 3).								melting point (polycar mide)., Accordi to experie availabl to date, polycarl
12.3. Bioaccumulative potential:	BCF	28d	200		Cyprinus caprio	OECD 305 (Bioconcentr ation - Flow- Through	Not to be expected, Analogous conclusion								ide is in and nor degrada
12.4. Mobility in	н		0,02 29	Pa*m 3/mol		Fish Test)									



B) Page 12 of 14 Safety data sheet a 2020/878) Revision date / vers Replacing version o Valid from: 25.11.2 PDF print date: 28. KNAPP PM+ KLEE	sion: 25.11.20 dated / versior 2024 11.2024	24 / 0016 n: 19.10.2	6		s, Annex II (last a	mended by Regul	ation (EU)	12.2. Persistence and degradability:		28d	0	%		OECD 302 C (Inherent Biodegradab ility - Modified MITI Test (II))	With wate at the interface, transform slowly wit formation of CO2 into a firm insoluble
12.3. Bioaccumulative potential:	BCF	28d	200		Cyprinus caprio	OECD 305 (Bioconcentr ation - Flow- Through Fish Test)	A notable biological accumulati on potential has to be expected (LogPow > 3).								reaction product with a hig point (polycarb mide)., Analogou conclusio
12.3. Bioaccumulative potential:	Log Pow		4,51 -5,2 2			OECD 117 (Partition Coefficient (n- octanol/wate r) - HPLC	A notable biological accumulati on potential has to be	12.3. Bioaccumulative potential:	BCF	28d	200		Cyprinus caprio	OECD 305 (Bioconcentr ation - Flow- Through Fish Test)	Not to be expected Analogou conclusio No PBT
12.5. Results of						method)	expected (LogPow > 3). No PBT	PBT and vPvB assessment Toxicity to	EC50	3h	>10	mg/l	activated	OECD 209	substance No vPvB substance Analogou
PBT and vPvB assessment Toxicity to bacteria:	EC50	3h	>10 0	mg/l	activated sludge	OECD 209 (Activated	substance, No vPvB substance	bacteria:			0		sludge	(Activated Sludge, Respiration Inhibition Test	conclusio
Dacteria.			Ū		auuge	Sludge, Respiration Inhibition Test								(Carbon and Ammonium Oxidation))	
Toxicity to	EC50	3h	>10	mg/l	activated	(Carbon and Ammonium Oxidation)) OECD 209	Analogous	Other organisms:	NOEC/N OEL	14d	>10 00		Lumbricus terrestris	OECD 207 (Earthworm, Acute Toxicity Tests)	Analogou conclusio
bacteria:	ECSU	50	0	mg/i	sludge	(Activated	conclusion	Coloium corbonat	•					Tesis)	
						Sludge, Respiration Inhibition		Calcium carbonat Toxicity / effect	e Endpoin	Tim	Valu	Unit	Organism	Test	Notes
						Test (Carbon and Ammonium		12.1. Toxicity to fish:	t LC50	e 96h	e >10 0	mg/l	Oncorhynch us mykiss	method OECD 203 (Fish, Acute Toxicity Test)	
Other information:						Oxidation))	Does not contain	12.1. Toxicity to fish: 12.1. Toxicity to	LC50 EC50	96h 48h	>10 000 >10	mg/l mg/l	Oncorhynch us mykiss Daphnia		
							any organically bound halogens which can contribute	daphnia: 12.1. Toxicity to daphnia:	EC50	48h	00 >10 0	mg/l	magna Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati on Test)	
Tableta	EC50	441			Financia	OECD 207	to the AOX value in waste water.	12.1. Toxicity to algae:	EC50	72h	>20 0	mg/l	Desmodesm us subspicatus	OECD 201 (Alga, Growth Inhibition	
Toxicity to annelids:	ECSU	14d	>= 100 0	mg/k g	Eisenia foetida	(Earthworm, Acute Toxicity Tests)		12.2. Persistence and degradability:						Test)	Inorganic products cannot be eliminate
Silicon dioxide Toxicity / effect	Endpoin t	Time	Valu e	Unit	Organism	Test method	Notes								from wate through biological purificatio
12.2. Persistence and degradability:							Inorganic products cannot be eliminated from water through	12.3. Bioaccumulative potential:							Not relevant for inorganic substanc
12.5. Results of PBT and vPvB							biological purification methods. No PBT substance,	12.4. Mobility in soil:							Not relevant for inorganic
assessment							No vPvB substance	105 D 10 (substance
o-(p-isocyanatobe Toxicity / effect	enzyl)phenyl i Endpoin	isocyana Tim	te Valu	Unit	Organism	Test	Notes	12.5. Results of PBT and vPvB assessment							Not relevant for
12.1. Toxicity to fish:	t LC0	96h	e > 100	mg/l	Brachydanio rerio	Method OECD 203 (Fish, Acute	Analogous conclusion								inorganic substanc
10.1 Tavialt	ECEO	0.41	0		Dochair	Toxicity Test)	Anclass	12.6. Endocrine disrupting properties:							Not to be expected
12.1. Toxicity to daphnia:	EC50	24h	>10 00	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati on Test)	Analogous conclusion	Toxicity to bacteria:	EC50	3h	>10 00	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration	
12.1. Toxicity to daphnia:	NOEC/N OEL	21d	>10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati on Test)	Analogous conclusion							Inhibition Test (Carbon and Ammonium	
12.1. Toxicity to algae:	ErC50	72h	>16 40	mg/l	Scenedesm us subspicatus	OECD 201 (Alga, Growth Inhibition Test)	Analogous conclusion	Toxicity to annelids:					Eisenia foetida	Oxidation)) OECD 207 (Earthworm, Acute Toxicity Tests)	Negative
								Diphenylmethane	diisocyanate	isomere	s and ho	mologues	3		
								Toxicity / effect	Endpoin	Tim	Valu e	Unit	Organism	Test method	Notes
								12.1. Toxicity to fish:	LC50	96h	>10 00	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	



Not applicable

(GB)	
Page	13 of 14
Page	13 01 14

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU) 2020/878)

Revision date / version: 25.11.2024 / 0016 Replacing version dated / version: 19.10.2022 / 0015 Vaild from: 25.11.2024 PDF print date: 28.11.2024

KNAPP PM+ KLEBER GLUE COLLA

12.1. Toxicity to daphnia:	NOEC/N OEL	21d	>= 10	mg/l	Daphnia magna	OECD 211 (Daphnia	
·						magna Reproductio n Test)	
12.1. Toxicity to daphnia:	EC50	24h	>10 00	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisati on Test)	
12.1. Toxicity to algae:	EC50	72h	>16 40	mg/l	Desmodesm us subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	0	%	activated sludge	OECD 301 C (Ready Biodegradab ility - Modified MITI Test (I))	Not biodegrac ble
12.3. Bioaccumulative potential:	BCF	42d	<14		Cyprinus caprio	OECD 305 (Bioconcentr ation - Flow- Through Fish Test)	A notable biological accumula on potential i not to be expected (LogPow 3).
12.5. Results of PBT and vPvB assessment							No PBT substance No vPvB substance
Toxicity to bacteria:	EC50	3h	>10 0	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other organisms:	NOEC/N OEL	14d	>10 00	mg/k g	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	
Other information:	BOD	28d	<10	%		OECD 302 C (Inherent Biodegradab ility - Modified MITI Test (II))	
Other information:							Does not contain any organicall bound halogens which can contribute to the AO value in waste water.

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

Recommendation: Sewage disposal shall be discouraged. Pay attention to local and national official regulations.

E.g. suitable incineration plant. Hardened product: E.g. dispose at suitable refuse site.

For contaminated packing material Pay attention to local and national official reg Empty container completely. Uncontaminated packaging can be recycled. cial regulations.

Dispose of packaging that cannot be cleaned in the same manner as the substance. 15 01 10 packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

General statements

General statements	
Transport by road/by rail (ADR/RID)	
14.1. UN number or ID number:	Not applicable
14.2. UN proper shipping name:	
Not applicable	
14.3. Transport hazard class(es):	Not applicable
14.4. Packing group:	Not applicable
14.5. Environmental hazards:	Not applicable
Tunnel restriction code:	Not applicable
Classification code:	Not applicable
LQ:	Not applicable

Transport by sea (IMDG-code)							
14.1. UN number or ID number:	Not applicable						
14.2. UN proper shipping name:							
Not applicable							
14.3. Transport hazard class(es):	Not applicable						
14.4. Packing group:	Not applicable						
14.5. Environmental hazards:	Not applicable						
Marine Pollutant:	Not applicable						
EmS:	Not applicable						
Transport by air (IATA)							
14.1. UN number or ID number:	Not applicable						
14.2. UN proper shipping name:							
Not applicable							
14.3. Transport hazard class(es):	Not applicable						
14.4. Packing group:	Not applicable						
14.5. Environmental hazards:	Not applicable						
14.6. Special precautions for user							
Unless specified otherwise, general measures for safe transport must be followed.							
14.7. Maritime transport in bulk according to IMO instruments							
Non-dangerous material according to Transport Regulations.							
non-uangerous material according to transport Regulat	10115.						

SECTION 15: Regulatory information

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

Observe restrictions:

Transport category:

Conserve restrictions. Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)! Regulation (EC) No 1907/2006, Annex XVII 4,4-methylenediphenyl diisocyanate o-(p-isocyanatobenzyl)phenyl isocyanate biphenylmethanediisocyanate, isomeres and homologues 2,2-methylenediphenyl diisocyanate

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)

Comply with trade association/occupational health regulations

Directive 2010/75/EU (VOC): 0 a/l

National requirements/regulations on safety and health protection must be applied when using work equipment

15.2 Chemical safety assessment A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

8

Revised sections

These details refer to the product as it is delivered. Employee instruction/training in handling hazardous materials 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) No. 1272/2008 (CLP)	Evaluation method used
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.
Carc. 2, H351	Classification according to calculation procedure.
STOT RE 2, H373	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product na the constituents. H351 Suspected of causing cancer by inhalation. H373 May cause damage to organs through prolonged or repeated exposure by inhalation.

H315 Causes skin irritation.

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.

amended.

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 Carc. — Carcinogenicity STOT RE — Specific target organ toxicity - repeated exposure Acute Tox. — Acute toxicity - inhalation

Key literature references and sources

for data: Regulation (EC) No 1907/2006 (REACH) and Regulation (EC) No 1272/2008 (CLP) as amended. Guidelines for the preparation of safety data sheets as amended (ECHA). Guidelines on labelling and packaging according to the Regulation (EG) Nr. 1272/2008 (CLP) as amended (ECHA) Safety data sheets for the constituent substances. ECHA Homepage - Information about chemicals. GESTIS Substance Database (Germany). German Environment Agency "Rigoletto" information site on substances that are hazardous to water (Germany). EU Occupation Exposure Limits Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, (EU) 2017/164, [CU] 2019/1831, each as amended. National Lists of Occupational Exposure Limits for each country as amended. Regulations on the transport of hazardous goods by road, rail, sea and air (ADR, RID, IMDG, IATA) as



(B)
 Page 14 of 14
 Safety data sheet according to Regulation (EC) No 1907/2006, Annex II (last amended by Regulation (EU)
 2020/878)
 Revision date / version: 25.11.2024 / 0016
 Replacing version dated / version: 19.10.2022 / 0015
 Valid from: 25.11.2024
 PDF print date: 28.11.2024
 KNAPP PM+ KLEBER GLUE COLLA

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road) AOX Adsorbable organic halogen compounds Act, Art. no.Article number Astr. Art. no.Article number ASTM ASTM International (American Society for Testing and Materials) ATE Acute Toxicity Estimate Bundesanstalt für Materialforschung und -prüfung (= Federal Institute for Materials Research and BAM BAM Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health BAUA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany) BCF Bioconcentration factor BSEF The International Bromine Council CAS Chemical Abstracts Service CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures) CMR carcinogenic, mutagenic, reproductive toxic Derived Minimum Effect Level DMEL DNEL Derived No Effect Level DOC Dissolved organic carbon
 eg. for example (abbreviation of Latin 'exempli gratia'), for instance
 EbCx, EVcX, EbLx (x = 10, 50) Effect Concentration/Level of x % on reduction of the biomass
 (algae, plants) ÈC European Community ECHA European Community ECHA European Chemicals Agency ECx, ELx (x = 0, 3, 5, 10, 20, 50, 80, 100) Effect Concentration/Level for x % effect EEC European Economic Community EINECS European Inventory of Existing Commercial Chemical Substances ELINCS European List of Notified Chemical Substances EN European Norms ECHA United States Environmental Protection Agency (United States of America) , ErLx (x = 10, 50) Effect Concentration/Level of x % on inhibition of the growth rate EPA ErCx, EµCx, ErLx (x = 10, 50) etc. et cetera etc. EU European Union Ethylene-vinyl alcohol copolymer EVAL Fax. Fax number gen. GHS GWP Globally Harmonized System of Classification and Labelling of Chemicals Global warming potential Adsorption coefficient of organic carbon in the soil Koc octanol-water partition coefficient Kow IARC International Agency for Research on Cancer IARC International Agency for Research on Cancer IATA International Air Transport Association IBC (Code) International Bulk Chemical (Code) IMDG-code International Maritime Code for Dangerous Goods incl. IUCLID including, inclusive International Uniform Chemical Information Database International Union for Pure Applied Chemistry Lethal Concentration to 50 % of a test population Lethal Dose to 50% of a test population (Median Lethal Dose) Logarithm of adsorption coefficient of organic carbon in the soil IUPAC LC50 LD50 Log Koc Log Kow, Log Pow LQ Limited Logarithm of octanol-water partition coefficient Log row Dog row Doganitin of octanorwater partition coefficient LQ Limited Quantities MARPOL International Convention for the Prevention of Marine Pollution from Ships mg/kg bw/d, mg/kg bd/day mg/kg body weight/day mg/kg dw mg/kg dry weight mg/kg ww mg/kg weight n.a. not applicable n.av. not available n.c. not checked n.d.a. no data available n.av. n.c. n.d.a. NIOSH National Institute for Occupational Safety and Health (USA) NLP No-longer-Polymer NOEC. NOEL No Observed Effect Concentration/Level OECD Organisation for Economic Co-operation and Development Organic organic Occupational Safety and Health Administration (USA) persistent, bioaccumulative and toxic Polyethylene org. OSHA PBT PE PNEC Predicted No Effect Concentration Polycinylchloride Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No ppm PVC REACH
 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.
 6/7/8/9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a

 CAS No.
 ordher numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifier. List Numbers do not have any legal significance, rather they are purely technical identifier. List Numbers do not have any legal significance, rather they are purely technical identifier. List Numbers do not have any legal significance, rather they are purely technical identifier. List Numbers do not have any legal significance, rather they are purely technical identifier. List Numbers of Not REACH-IT.

 RID
 Réglement concernant le transport International ferroviaire de marchandises Dangereuses (=

 Regulation concerning the International Carriage of Dangerous Goods by Rail)
 Substances of Very High Concern

 Tel
 Telestore:
 Telestore:

 Svinc
 Substances of Very High Concern

 Tel.
 Telephone

 TOC
 Total organic carbon

 UN RTDG
 United Nations Recommendations on the Transport of Dangerous Goods

 VOC
 Volatile organic compounds

 VPVB
 very persistent and very bioaccurrentation
 The statements made here should describe the product with regard to the necessary safety precautions - they

not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by: Chemical Check GmbH, Chemical Check Platz 1-7, D-32839 Steinheim, Tel.: +49 5233 94 17 0, Fax: +49 5233 94 17 90

© by Chemical Check GmbH Gefahrstoffberatung. The copying or changing of this document is forbidden except with consent of the Chemical Check GmbH Gefahrstoffberatung.