Substance number: 1618M

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

1.1. Product identifier

Modralit 3K Hardener

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

Use of the substance/preparation

Hardener

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Dreve Dentamid GmbH Max-Planck-Straße 31 DE-59423 Unna Telephone no. +49 2303 8807-0 Fax no. +49 2303 8807-29 Information provided Department Research & Development: Fax: +49 2303 8807-562 by / telephone E-mail address of sicherheitsdatenblatt@dreve.com person responsible for this SDS

1.4. Emergency telephone number

Henkel Fire Department / 24h-Emergency-Contact-No.: +49 211 797-3350

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

1011(10)110.1212(2000)	
Acute Tox. 4	H332
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Resp. Sens. 1	H334
Skin Sens. 1	H317
Carc. 2	H351
STOT SE 3	H335
STOT RE 2	H373

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008 For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008 Hazard pictograms

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Signal word

Danger

Hazard statements

H332	Harmful if inhaled.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H351	Suspected of causing cancer.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	[In case of inadequate ventilation] wear respiratory protection.
P304+P340	IF INHALED: Remove 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. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/ attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor.
	r(x) to be indicated on label (Regulation (EC) No. $4272/2000$)

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008) contains Methylendiisocyanat; 4,4'-Methylenediphenyl diisocyanate; 2,2'-Methyle

Methylendiisocyanat; 4,4'-Methylenediphenyl diisocyanate; 2,2'-Methylene diphenyldiisocyanate; o-(p-Isocyanatobenzyl)phenylisocyanate

Supplemental information

EUH204

Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients

Methylendiisocyana	t		
CAS No.	9016-87-9		
Concentration	>=	54	
Classification (Regu	Ilation (EC) No.	1272/2008)	
	Acute Tox. 4		H332
	Skin Irrit. 2		H315
	Eye Irrit. 2		H319
	Resp. Sens.	1	H334
	•		

%

afety data sheet in accorda				2000				Dreve
rade name: Modralit 3K Harde	ener							
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	I	Replaces	Versior	n: 1 / (GΒ		Print date	: 12.09.202
	Chin Cono. 1		11047					
	Skin Sens. 1 Carc. 2		H317 H351					
	STOT SE 3		H335					
	STOT RE 2		H373					
Concentration limits (F				0/				
	Eye Irrit. 2 Resp. Sens. 1	H319 H334	>= 5 >= 0	,1 %				
	Skin Irrit. 2	H315	>= 5					
	STOT SE 3	H335	>= 5					
	ative, Dust/Mist		1,5		mg/l			
•	ative, Vapors		11		mg/l			
4,4'-Methylenedipheny CAS No.	101-68-8							
EINECS no.	202-966-0							
Registration no.	01-2119457014-							
Concentration	>= 20		<	25		%		
Classification (Regulat	Acute Tox. 4	(2008)	H332					
	Skin Irrit. 2		H315					
	Eye Irrit. 2		H319					
	Resp. Sens. 1		H334					
	Skin Sens. 1		H317					
	Carc. 2 STOT SE 3		H351 H335					
	STOT RE 2		H373					
Concentration limits (F	Regulation (EC) No	1272/2	008)					
	Eye Irrit. 2	H319	.000) >= 5	%				
	Resp. Sens. 1	H334		,1 %				
	Skin Irrit. 2	H315	>= 5					
Additional remarks:	STOT SE 3	H335	>= 5	%				
CLP	Regulation (EC)	No 1272	/2008, A	nnex	VI, N	lote 2, C		
o-(p-lsocyanatobenzyl	• • • •							
CAS No.	5873-54-1							
EINECS no.	227-534-9							
Registration no.	01-2119480143-	45		10		0/		
Concentration Classification (Regulat	>= 5 tion (EC) No. 1272	2008)	<	10		%		
Classification (Regula	Acute Tox. 4	/2000)	H332					
	Skin Irrit. 2		H315					
	Eye Irrit. 2		H319					
	Resp. Sens. 1		H334					
	Skin Sens. 1 Carc. 2		H317 H351					
	STOT SE 3		H335					
	STOT RE 2		H373					
Concentration limits (F	Regulation (EC) No	o. 1272/2	(800					
	Eye Irrit. 2	H319	>= 5					
	Resp. Sens. 1	H334		,1 %				
	Skin Irrit. 2	H315 H335	>= 5 >= 5					
Additional remarks:	STOT SE 3	0000	>= 5	70				

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Substance number: 1618M	V	ersion: 2	/ GB			Date revised: 12.09.202
	R	eplaces	/ersion: 1	/ GB		Print date: 12.09.202
2,2'-Methylene diphe	nyldiisocyanate					
CAS No.	2536-05-2					
EINECS no.	219-799-4					
Registration no.		3				
Concentration	>= 1		: 5		%	
Classification (Regu	lation (EC) No. 1272/	2008)				
	Acute Tox. 4	ŀ	1332			
	Skin Irrit. 2	H	1 315			
	Eye Irrit. 2		1 319			
	Resp. Sens. 1	F	1334			
	Skin Sens. 1	F	1 317			
	Carc. 2		1351			
	STOT SE 3		1335			
	STOT RE 2	F	1373			
Concentration limits	(Regulation (EC) No.	1272/20	08)			
	Eye Irrit. 2	H319				
	Resp. Sens. 1					
	Skin Irrit. 2		>=5 %			
	STOT SE 3	H335	>=5 %			
Additional remarks:						

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid

After inhalation

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

After skin contact

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

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

Until now no symptoms known so far.

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

Hints for the physician / hazards

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Recommended: alcohol resistant foam, CO2, powders, water spray/mist, Extinguishing measures to suit surroundings

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters

Special protective equipment for fire-fighting

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor`s instructions.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Pick up rest with suitable absorbent materials. Do not pick up with the help of saw-dust or other combustible substances. Clean contaminated floors and objects thoroughly, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of

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aerosols. Avoid impact, friction and electro-static loading; risk of ignition! Keep container tightly closed.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges. Avoid impact and friction. Use only explosion-proof equipment. Keep away from combustible material. Wear shoes with conductive soles.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Do not store together with foodstuffs. Do not store with strong oxidizing agents.

Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized. Keep container tightly closed and in a well-ventilated place. Keep in a cool place

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Methylendiisocyanat

Туре	AGW
F	

0.05 mg/m³

Value Maximum limit value: (I); Skin resorption / sensibilisation: H; Pregnancy group: Y; Status: 5/2010

Biological limit values

4,4'-Methylenediphenyl diisocyanate

List	BGW (TRGS 903)
Value	0,01 mg/g creatinine
Parameter	4,4'-diaminodiphenylmethane
Testing material	Urine (U)
Test date	End of exposure or end of shift (b)

Other information

Contains no substances with occupational exposure limit values.

8.2. Exposure controls

General protective and hygiene measures

Do not smoke during work time. Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream

Respiratory protection

Do not inhale vapours; Use suitable respiratory protective device in case of insufficient ventilation

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

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Gloves should be replace Hand protection must cor Appropriate Material		n of damage to the glove material.
Eye protection Safety glasses		
Body protection		
Clothing as usual in the c	hemical industry.	
SECTIO	ON 9: Physical and che	emical properties
0.1 Information on basic r	abysical and chomical prov	nortios
9.1. Information on basic p Physical state		pernes
Colour	dark brown	
Odour	putrid	
Melting point		
Value	41	°C
Freezing point		
Remarks	not determined	
Boiling point or initial be	oiling point and boiling range	2
Value	> 350	°C
Flammability		
evaluation	not determined	
Upper and lower explosion	ive limits	
Lower explosion limit	0,4	%(V)
Remarks	not determined	
Flash point		
Value	229	°C
Method	DIN 51758	
Auto-ignition temperatu		
Value	400	D°
Decomposition tempera		
Remarks	not determined	
pH value		
Remarks	not determined	
Viscosity		
Remarks	not determined	
Solubility(ies)		
Remarks	not determined	
Partition coefficient n-oo Remarks	not determined	
Vapour pressure		
Remarks	not determined	
Density and/or relative of	lensity	
Value	1,22	g/cm³
Temperature	20 °C	<u> </u>
Method	DIN 53217	

	regulation (EC) No 1907/2006	Dreve
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Relative vapour density		
Remarks	not determined	
9.2. Other information		
Odour threshold		
Remarks	not determined	
Evaporation rate (ether = 1) :		
Remarks	not determined	
Solubility in water		
Remarks	virtually insoluble	
Explosive properties		
evaluation	no	
Oxidising properties Remarks	not determined	
Solvent content	not determined	
Value	0,0	%
Other information	0,0	, o
None known		
SECTI	ON 10: Stability and reactiv	vity
10.1. Reactivity No hazardous reactions when s	tored and handled according to prescrib	ed instructions.
10.2. Chemical stability No hazardous reactions known.		
10.3. Possibility of hazardous r	eactions	
•		
Keep away from oxidising agen water. Protect from heat and dir		aterials, amines, alcohols and
water. Protect from heat and dir	ect sunlight	aterials, amines, alcohols and
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur	ect sunlight	aterials, amines, alcohois and
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur 10.5. Incompatible materials None known 10.6. Hazardous decomposition	ect sunlight	
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur 10.5. Incompatible materials None known 10.6. Hazardous decomposition	ect sunlight hlight h products	
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur 10.5. Incompatible materials None known 10.6. Hazardous decomposition Carbon monoxide, nitrous oxide	ect sunlight hlight h products	c acid
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur 10.5. Incompatible materials None known 10.6. Hazardous decomposition Carbon monoxide, nitrous oxide SECTIO	ect sunlight hlight n products (NOx), Possible in traces, Hydrocyanio N 11: Toxicological informa	c acid ation
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur 10.5. Incompatible materials None known 10.6. Hazardous decomposition Carbon monoxide, nitrous oxide SECTIO	ect sunlight hlight n products (NOx), Possible in traces, Hydrocyanio N 11: Toxicological informa	c acid ation
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur 10.5. Incompatible materials None known 10.6. Hazardous decomposition Carbon monoxide, nitrous oxide SECTIO 11.1. Information on hazard cla Acute oral toxicity	ect sunlight hlight n products (NOx), Possible in traces, Hydrocyanio N 11: Toxicological informa	c acid ation EC) No 1272/2008
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur 10.5. Incompatible materials None known 10.6. Hazardous decomposition Carbon monoxide, nitrous oxide SECTIO 11.1. Information on hazard cla Acute oral toxicity	ect sunlight hlight n products is (NOx), Possible in traces, Hydrocyanic N 11: Toxicological informa sses as defined in Regulation (ased on available data, the classification	c acid ation EC) No 1272/2008
water. Protect from heat and dir 10.4. Conditions to avoid Protect from heat and direct sur 10.5. Incompatible materials None known 10.6. Hazardous decomposition Carbon monoxide, nitrous oxide SECTIO 11.1. Information on hazard cla Acute oral toxicity Remarks B	ect sunlight hlight n products is (NOx), Possible in traces, Hydrocyanic N 11: Toxicological informa sses as defined in Regulation (ased on available data, the classification	c acid ation EC) No 1272/2008

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Frade name: Modralit 3K Hardene	er			
Substance number: 1618M	Versio	n: 2 / GB		Date revised: 12.09.20
	Replac	ces Version:	1 / GB	Print date: 12.09.20
LD50	49000		mg/kg	
4,4'-Methylenediphenyl d	iisocyanate			
LD50 Remarks	> 2000 Test conducted	with a aimila	mg/kg	
		with a simila		
o-(p-lsocyanatobenzyl)pł LD50	> 2000		mg/kg	
Remarks	Test conducted	with a simila		
2,2'-Methylene diphenyld	iisocvanate			
LD50	> 2000		mg/kg	
Remarks	Test conducted	with a simila	r formulation.	
Acute dermal toxicity				
Remarks	Based on availa	ble data, the	classification criteria	are not met.
Acute dermal toxicity (C	components)			
Methylendiisocyanat				
Species	rabbit			
LD50	> 9400		mg/kg	
o-(p-lsocyanatobenzyl)ph	nenvlisocvanate		5. 5	
	> 9400		mg/kg	
Remarks	Test conducted	with a simila		
2,2'-Methylene diphenyld	iisocyanate			
LD50	> 9400		mg/kg	
Remarks	Test conducted	with a simila	r formulation.	
Acute inhalational toxic	ity			
Remarks	The classificatio	n criteria are	met.	
Acute inhalative toxicity	(Components)			
-				
4,4'-Methylenediphenyl d Species	rat			
LC50	368		mg/m³	
Duration of exposure	4	h		
Administration/Form	Dust/Mist			
Method	OECD 403			
2,2'-Methylene diphenyld	iisocyanate			
Species	rat (female)			
LC50	685,75		mg/m³	
Duration of exposure Administration/Form	4 Duct/Mict	h		
Method	Dust/Mist OECD 403			
2,2'-Methylene diphenyld				
Species	rat (male)			
LC50	527,2		mg/m³	
Duration of exposure	4	h	Ū	
Administration/Form	Dust/Mist			
Method	OECD 403			
o-(p-lsocyanatobenzyl)ph				
Species	rat (male)			
LC50 Duration of exposure	387 4	h	mg/m³	
Administration/Form	4 Dust/Mist	11		
Method	OECD 403			
o-(p-lsocyanatobenzyl)ph				
Species	rat (female)			
LĊ50	64 5		mg/m³	

Safety data sheet in accordance	with regulation (EC) No 1907/2006	Dreve
Trade name: Modralit 3K Hardener	-	
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Duration of exposure Administration/Form	4 h Dust/Mist	
Methylendiisocyanat		
Species	rat	
LC50	0,48 mg/l	
Duration of exposure	4 h	
Skin corrosion/irritation		
evaluation	irritant	
Remarks	The classification criteria are met.	
Skin corrosion/irritation	(Components)	
4,4'-Methylenediphenyl di	· · · /	
Species	rabbit	
evaluation	irritant	
Method	OECD 404	
o-(p-Isocyanatobenzyl)ph		
evaluation	irritant	
Remarks	Test conducted with a similar formulation.	
Methylendiisocyanat		
evaluation	irritant	
Serious eye damage/irrit		
evaluation	irritant	
Remarks	The classification criteria are met.	
Serious eye damage/irrit		
4,4'-Methylenediphenyl di Species	rabbit	
evaluation	irritant	
Method	OECD 405	
o-(p-lsocyanatobenzyl)ph		
evaluation	slightly irritant	
Remarks	Test conducted with a similar formulation.	
Methylendiisocyanat		
evaluation	irritant	
Sensitization		
evaluation	May cause sensitization by inhalation.	
Remarks	The classification criteria are met.	
Sensitization (Componer		
· ·	•	
4,4'-Methylenediphenyl di Route of exposure	dermal	
Species	guinea pig	
evaluation	sensitizing	
Method	OECD 406	
4,4'-Methylenediphenyl di		
Route of exposure	inhalative	
Species	guinea pig	
evaluation	sensitizing	
2,2'-Methylene diphenyldi	-	
Route of exposure	dermal	
Species	mouse	
evaluation	sensitizing	
Method	OECD 429	
2,2'-Methylene diphenyldi	isocvanate	

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rade name: Modralit 3K Hardene	er		
ubstance number: 1618M	Version: 2 / GB	Date revised: 12.09.20	
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Route of exposure	inhalative		
evaluation	sensitizing		
Remarks	Test conducted with a similar formulation.		
o-(p-Isocyanatobenzyl)pl Route of exposure	n enylisocyanate dermal		
evaluation	sensitizing		
Remarks	Test conducted with a similar formulation.		
o-(p-Isocyanatobenzyl)pl	nenylisocyanate		
Route of exposure	inhalative		
evaluation	sensitizing		
Remarks	Test conducted with a similar formulation.		
Methylendiisocyanat			
Route of exposure	dermal		
evaluation	sensitizing		
Methylendiisocyanat	inholotivo		
Route of exposure evaluation	inhalative sensitizing		
	-		
Subacute, subchronic, o	-		
Remarks	not determined		
Mutagenicity			
Remarks	Based on available data, the classification crit	teria are not met.	
Reproductive toxicity			
Remarks	Based on available data, the classification crit	teria are not met.	
Carcinogenicity			
evaluation	Suspected of causing cancer.		
Remarks	The classification criteria are met.		
Carcinogenicity (Compo			
	•		
4,4'-Methylenediphenyl d			
Route of exposure	inhalative rat		
Species Dose	1 mg/m ³		
evaluation	Suspected of causing cancer.		
2,2'-Methylene diphenyld			
Route of exposure	inhalative		
Dose	1 mg/m ³		
evaluation	Suspected of causing cancer.		
o-(p-Isocyanatobenzyl)pl Route of exposure	nenylisocyanate inhalative		
Dose	1 mg/m ³		
evaluation	Suspected of causing cancer.		
Methylendiisocyanat			
evaluation	Suspected of causing cancer.		
Specific Target Organ T			
Single exposure			
Remarks	The classification criteria are met.		
evaluation	May cause respiratory irritation.		
Repeated exposure			
Remarks	The classification criteria are met.		
evaluation	May cause damage to organs through prolong		

rade name: Modralit 3K Hardene	<i>v</i>			
ubstance number: 1618M	Version: 2 / GB	Date revised: 12.09.202		
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4,4'-Methylenediphenyl d	iisocyanate			
Repeated exposure				
evaluation	May cause damage to organs through pro Route of exposure inhalative	blonged or repeated exposure		
Species LOAEL	rat 0,23 mg/m³			
-	.			
4,4'-Methylenediphenyl d	nsocyanate			
Single exposure evaluation	May cause respiratory irritation.			
Species	rat			
2,2'-Methylene diphenyld	lisocyanate			
Single exposure evaluation	May cause respiratory irritation. Organs: Lungs			
NOAEC	1 mg/m^3			
2,2'-Methylene diphenyld	iisocyanate			
Repeated exposure				
evaluation	May cause damage to organs through prolonged or repeated exposure Route of exposure inhalative Organs: Respiratory tract			
NOAEC	0,2 mg/m ³			
o-(p-lsocyanatobenzyl)ph	enylisocyanate			
Single exposure				
evaluation	May cause respiratory irritation. Route of exposure inhalative			
NOAEC	Organs: Respiratory tract 1 mg/m ³			
o-(p-lsocyanatobenzyl)ph	-			
Repeated exposure evaluation	May cause damage to organs through prolonged or repeated exposure Route of exposure inhalative			
NOAEC	Organs: Lungs 0,2 mg/m³			
Remarks	Test conducted with a similar formulation.			
Methylendiisocyanat				
Single exposure evaluation	May cause respiratory irritation.			
Methylendiisocyanat	, i ,			
Repeated exposure evaluation	May cause damage to organs through pro	blonged or repeated exposure		
Aspiration hazard	the classification criteria are not met.			
1.2. Information on other				
	operties with respect to humans ntain a substance that has endocrine disrupting	properties with respect to		

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	Replaces Version: 1		/ GB	Print date: 12.09.2024
Other information No toxicological data are		Ecological i	information	
12.1. Toxicity				
General information				
not determined				
Fish toxicity (Compone	nts)			
4,4'-Methylenediphenyl d	iisocyanate			
Species		Brachydanio rerio)		
LL50 Duration of exposure	> 100 96	h	mg/l	
Method	OECD 203			
Daphnia toxicity (Comp	onents)			
4,4'-Methylenediphenyl d				
Species EL0	Daphnia ma	gna	~~~/l	
Duration of exposure	4,3 48	h	mg/l	
Method	OECD 202			
4,4'-Methylenediphenyl d				
Species NOEC	Daphnia ma	igna	mg/l	
Duration of exposure	21	d	0	
o-(p-lsocyanatobenzyl)pł				
Species EL0	Daphnia ma 1,9	igna	mg/l	
Duration of exposure	48	h	5	
	OECD 202			
o-(p-lsocyanatobenzyl)pł NOEC	>= 10		mg/l	
Duration of exposure	21	d		
Algae toxicity (Compon	ents)			
4,4'-Methylenediphenyl d				
Species EL50	Desmodesn > 100	nus subspicatus	mg/l	
Duration of exposure	72	h	1119/1	
Method	OECD 201			
Bacteria toxicity (Comp	-			
4,4'-Methylenediphenyl d		Idao		
Species EC50	activated slu > 50	luge	mg/l	
Duration of exposure Method	3 OECD 209	h	5	
12.2. Persistence and deg				
General information	adabiiity			
not determined				
Ready degradability (Co				

I

Frade name: Modralit 3K Hardener				
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4,4'-Methylenediphenyl diisocy	vanate			
Value	20		%	
Duration of test	28	d		
	Test conducted wit	th a similar fo	ormulation.	
2,2'-Methylene diphenyldiisocy				
12.3. Bioaccumulative potentia	al			
General information				
not determined				
Partition coefficient n-octand	• •			
Remarks	not determined			
Octanol/water partition coeff) (Compon	ents)	
4,4'-Methylenediphenyl diisocy				
log Pow Temperature	4,51 22	°C		
o-(p-Isocyanatobenzyl)phenyli		Ū		
log Pow	4,52			
Temperature	22	°C		
2,2'-Methylene diphenyldiisocy				
log Pow Temperature	4,52 22	°C		
12.4. Mobility in soil		-		
General information				
not determined				
12.5. Results of PBT and vPvB	assessment			
General information				
not determined				
Results of PBT and vPvB as				
The product contains no PBT s The product contains no vPvB				
12.6 Endocrine disrupting pro	perties			
Endocrine disrupting proper	ties with respec	ct to the en	vrionment	
The product does not contain a target organisms.	a substance that h	as endocrine	e disrupting prop	erties with respect to non-
12.7. Other adverse effects				
General information not determined				
General information / ecolog	v			
Do not allow to enter soil, wate	-	ater canal. A	void release into	the atmosphere.
SECTI	ON 13: Disp	osal con	siderations	\$

Safety data sheet in acco	ordance with regulation (EC)	No 1907/2006	Dreve
rade name: Modralit 3K I	Hardener		
Substance number: 1618M Version: 2 / GB			Date revised: 12.09.2024
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Dispose of waste Disposal recomm	osed together with household g according to applicable legisla nendations for packaging annot be cleaned should be dis	ition.	
	SECTION 14: Tra	nsport information	
	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	The product does not constitute a hazardous substance in land transport.	The product does not constitute a hazardous substance in sea transport.	The product does not constitute a hazardous substance in air transport.
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)		-	-
Label			
14.4. Packing group		-	-
	SECTION 15: Reg	ulatory information	
15.1. Safety, health a or mixture	and environmental regu	lations/legislation spec	cific for the substance
-	s, restrictions and prohibit	-	
Other information	2023, an appropriate training n	nust be provided for industria	l or commercial use.
	-		
	are contained in the TSCA inver	ntory or exempted.	
All components a			
All components a	ty assessment e a chemical safety assessme	nt has not been carried out.	
All components a 15.2. Chemical safet For this substanc	ty assessment be a chemical safety assessment SECTION 16: C	nt has not been carried out.	syturos according to
All components a 15.2. Chemical safet For this substanc	ty assessment be a chemical safety assessment SECTION 16: C d procedure used to derive	nt has not been carried out.	ixtures according to
All components a 15.2. Chemical safet For this substanc Classification and Regulation (EC) 1	ty assessment be a chemical safety assessment SECTION 16: C d procedure used to derive (272/2008 [CLP]: egulation (EC) No. 1272/2008)	nt has not been carried out. Other information	-
All components a 15.2. Chemical safet For this substanc Classification and Regulation (EC) 1	ty assessment e a chemical safety assessment SECTION 16: C d procedure used to derive 1272/2008 [CLP]:	nt has not been carried out. Other information e the classification for mining H332 Calculat	ixtures according to ion method ion method
All components a 15.2. Chemical safet For this substanc Classification and Regulation (EC) 1	ty assessment be a chemical safety assessment SECTION 16: C d procedure used to derive 1272/2008 [CLP]: egulation (EC) No. 1272/2008) Acute Tox. 4 Skin Irrit. 2 Eye Irrit. 2	nt has not been carried out. Other information e the classification for mi H332 Calculat H315 Calculat H319 Calculat	ion method ion method ion method
All components a 15.2. Chemical safet For this substanc Classification and Regulation (EC) 1	ty assessment se a chemical safety assessment SECTION 16: C d procedure used to derive 272/2008 [CLP]: egulation (EC) No. 1272/2008) Acute Tox. 4 Skin Irrit. 2	nt has not been carried out. Other information e the classification for mi H332 Calculat H315 Calculat H319 Calculat H334 Calculat	ion method ion method

Trade name: Modralit 3K Harde	ener				
Substance number: 1618M		Version: 2 / GB	Date revised: 12.09.2024		
		Replaces Version: 1 / GE	B Print date: 12.09.2024		
	STOT RE 2	H373	Calculation method		
Hazard statements lis	ted in Chapt	er 2/3			
H315	Causes	s skin irritation.			
H317	May ca	May cause an allergic skin reaction.			
H319		Causes serious eye irritation.			
H332	Harmful if inhaled.				
H334		May cause allergy or asthma symptoms or breathing difficulties if inhaled.			
H335		May cause respiratory irritation.			
H351		Suspected of causing cancer.			
H373	May ca	May cause damage to organs through prolonged or repeated exposure.			
CLP categories listed	in Chapter 2	/3			
Acute Tox. 4		Acute toxicity, Category 4			
Carc. 2		Carcinogenicity, Category 2			
Eye Irrit. 2		Eye irritation, Category 2			
Resp. Sens. 1	Respiratory sensitization, Category 1				
Skin Irrit. 2		itation, Category 2			
Skin Sens. 1 STOT RE 2		Skin sensitization, Category 1			
STOT SE 3	Specific target organ toxicity - repeated exposure, Category 2 Specific target organ toxicity - single exposure, Category 3				

Relevant changes compared with the previous version of the safety data sheet are marked with: *** This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.