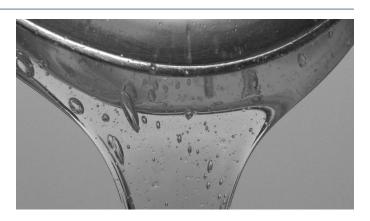
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name: NECURON® K13 B

Supplier: NECUMER GmbH

Industriestraße 26 D-49163 Bohmte Tel.: +49 5471 9502-0 Fax: +49 5471 9502-99

Version: 21.11.2018



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

PC1: Adhesives, sealants. PC9a: Coatings and paints, thinners, paint removers. PC9b: Fillers, putties, plasters, modelling clay. PC32: Polymer preparations and compounds. PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC5: Mixing or blending in batch processes for formulation of preparations* and articles (multistage and/or significant contact) PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10: Roller application or brushing PROC13: Treatment of articles by dipping and pouring PROC19: Hand-mixing with intimate contact and only PPE available ERC2: Formulation of preparations* ERC3: Formulation in materials ERC5: Industrial use resulting in inclusion into or onto a matrix ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

1.3 Details of the supplier of the safety data sheet

Company name: NECUMER GmbH

Industriestraße 26 49163 Bohmte Deutschland +49 5471 95020

Tel: +49 5471 95020

1.4 Emergency telephone number

Emergency tel: +49 5471 95020 (office hours only)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification under CLP

Acute Tox. 4: H332; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Asp. Tox. 1: H304; Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335

Most important adverse effects

May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation. Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Label elements

Hazard statements

Hazara Staterne	1113
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Hazard pictograms

GHS07 Exclamation mark
GHS08 Health hazard
GHS09 Environmental







Signal words Danger

Precautionary statements

P260	Do not breathe dust/fumes/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/.
P302+352	IF ON SKIN: Wash with plenty of water/.
P304+340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P304+341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in
	a position comfortable for breathing.

2.3 Other hazards

Danger of serious damage to health by prolonged exposure.

PBT

This product is not identified as a PBT/vPvB substance.

EN 3/9

COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous ingredients:

DIPHENYLMETHA	ANE-4,4'-DI-ISC	CYANATE - F	REACH registered number(s): 01-211945703	L4-47
EINECS	CAS	PBT / WEL	CLP Classification	Percent
202-966-0	101-68-8	-	Carc. 2: H351; Acute Tox. 4: H332; STOT RE 2: H373; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317	25-50 %
DIISOPROPYLNA	PHTHALENE ISO	OMERS - REA	CH registered number(s): 01-2119565150-	48
254-052-6	38640-62-9	-	Asp. Tox. 1: H304; Aquatic Chronic 1: H410	25-50 %
DIPHENYLMETHA	ANE DIISOCYAN	IATE (ISOME	RS AND HOMOLOGUES)	
-	9016-87-9	-	Carc. 2: H351; Acute Tox. 4: H332; STOT RE 2: H373; Eye Irrit. 2: H319; STOT SE 3: H335; Skin Irrit. 2: H315; Resp. Sens. 1: H334; Skin Sens. 1: H317	1-25 %
DIPROPYLENEGLYCOL DIBENZOATE - REACH registered number(s): 01-2119529241-49				
248-258-5	27138-31-4	-	Aquatic Chronic 3: H412	1-25 %

4. FIRST AID MEASURES

4.1 Description of first aid measures

Skin contact

Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. Consult a doctor.

Eye contact

Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion

Wash out mouth with water. Do not induce vomiting. Consult a doctor.

Inhalation

Remove casualty from exposure ensuring one's own safety whilst doing so. Move to fresh air in case of accidental inhalation of vapours. If unconscious and breathing is OK, place in the recovery position. Consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

Skin contact

There may be irritation and redness at the site of contact.

Eye contact

There may be irritation and redness.

Ingestion

Nausea and stomach pain may occur.

Inhalation

There may be a feeling of tightness in the chest with shortness of breath. Exposure may cause coughing or wheezing.

Delayed / immediate effects

Immediate effects can be expected after short-term exposure.

4.3 Indication of any immediate medical attention and special treatment needed Immediate / special treatment

Show this safety data sheet to the doctor in attendance.

FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media for the surrounding fire should be used.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Wear protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus.

ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Refer to section 8 of SDS for personal protection details. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2 Environmental precautions

Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3 Methods and material for containment and cleaning up

Clean-up procedures: Mix with sand or vermiculite. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Clean-up should be dealt with only by qualified npersonnel familiar with the specific substance.

6.4 Reference to other sections

Refer to section 8 of SDS. Refer to section 13 of SDS.

HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.

Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions: Keep container tightly closed.

Avoid contact with water or humidity. >20°C

Suitable packaging: Must only be kept in original packaging.

7.3 Specific end use(s)

No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Hazardous ingredients:

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

Workplace exposure limits:

Respirable dust



State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL	
UK	0.02 mg/m3	0.07 mg/m3	-	-	
DIPHENYLMETHANE DIISOCYANATE (ISOMERS AND HOMOLOGUES)					
UK	0.02 mg/m3	0.07 mg/m3	-	-	
DNEL/PI	NEC Values				
Hazardo	ous ingredients				
DIPHEN	ylmethane-4,4'-di-isocyan	IATE			
Type	Exposure	Value	Population	Effect	
DNEL	Inhalation	0.05 mg/m3	Workers	Systemic	
DNEL	Inhalation	0.05 mg/m3	Workers	Local	
PNEC	Fresh water	1 mg/l	-	-	
PNEC	Marine water	0.1 mg/l	-	-	
Type	Exposure	Value	Population	Effect	
DIPROP	YLENEGLYCOL DIBENZOATE				
DNEL	Dermal (repeated dose)	10 mg/kg bw/day	Workers	Systemic	
DNEL	Inhalation (repeated dose)	8.8 mg/m3	Workers	Systemic	
DNEL	Dermal (repeated dose)	0.22 mg/kg bw/ day	General Populat	tion Systemic	
DNEL	Inhalation (repeated dose)	8.69 mg/m3	General Populat	tion Systemic	
DNEL	Oral (repeated dose)	5 mg/kg bw/day	General Populat	tion Systemic	
DNEL	Fresh water	0.0037 mg/l	_	-	
DNEL	Marine water	0.00037 mg/l	-	-	
DNEL	Aqua Intermittent	0.037 mg/l	_	-	
DNEL	Fresh water sediments	1.49 mg/kg	-	-	
PNEC	Marine sediments	0.149 mg/kg	-	-	
PNEC	Soil	1 mg/kg	-	-	
PNEC	Microorganisms in sewage treatment	10 mg/l	-	-	

8.2 Exposure controls

Engineering measures

Ensure there is sufficient ventilation of the area.

Respiratory protection

Gas/vapour filter, type A: organic vapours (EN141). Self-contained breathing apparatus must be available in case of emergency.

Hand protection

Impermeable gloves.

Eye protection

Safety glasses. Ensure eye bath is to hand.

Skin protection

Impermeable protective clothing.

Environmental

Ensure all engineering measures mentioned in section 7 of SDS are in place.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

State Liquid Colour Brown

Odour Characteristic odour
Evaporation rate No data available.
Oxidising No data available.
Solubility in water No data available.
Viscosity 55 mPas (25°C)

Boiling point/range°C No data available.
Flammability limits %: lower Flash point°C No data available.
Autoflammability°C No data available.
Melting point/range°C No data available upper No data available Part.coeff. n-octanol/waterNo data available.
Vapour pressure: No data available.

Relative density: 1.10 - 1.15

VOC q/l No data available.

9.2 Other information No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

10.4 Conditions to avoid

Heat. Moist air. Humidity.

10.5 Incompatible materials

Materials to avoid

Water. Acids.

10.6 Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

DIPHENYLMETHANE-4,4'-DI-ISOCYANATE

ORL	MUS	LD50	2200	mg/kg	
ORL	RAT	LD50	9200	mg/kg	
DIISOPROPYLNAPHTHALENE IS	SOMERS				
-	RAT	NOAEL (6 mon)	> 4000	mg/kg	
DERMAL	RAT	LD50	> 5.6	mg/l	
DUST/MIST	RAT	1H LC50	> 4000	mg/kg	
ORAL	RAT	LD50	1000	mg/kg	
DIPHENYLMETHANE DIISOCYANATE (ISOMERS AND HOMOLOGUES)					
DUST/MIST	RAT	LD50	49	mg/l	
ORAL	RBT	LD50	>9400	mg/kg	

DIPROPYLENEGLYCOL DIBENZOATE				
-	RBT	NOAEL (in feed, 90Da	1000	mg/kg
DERMAL	RAT	LD50	>2000	mg/kg
DUST/MIST	RAT	4H LC50	>200	mg/l
ORAL	RAT	LD50	3914	mg/kg
Relevant hazards for substance Hazard	Route		Basis	
Acute toxicity (ac. tox. 4)	INH	Hazardous: calculated		
Skin corrosion/irritation	DRM	Hazardous: calculated		
Serious eye damage/irritation	OPT	Hazardous: calculated		
Respiratory/skin sensitisation	INH DRM	RM Hazardous: calculated		
Carcinogenicity	-	Hazardous: calculated		
STOT-single exposure	NH	Hazardous: calculated		
STOT-repeated exposure	-	Hazardous: calculated		
Aspiration hazard	ration hazard - Hazardous: calculated			

Symptoms / routes of exposure

Skin contact

There may be irritation and redness at the site of contact.

Eye contact

There may be irritation and redness.

Ingestion

Nausea and stomach pain may occur.

Inhalation

There may be a feeling of tightness in the chest with shortness of breath. Exposure may cause coughing or wheezing.

Delayed / immediate effects

Immediate effects can be expected after short-term exposure.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Hazardous ingredients			
DIISOPROPYLNAPHTHALENE ISOMERS			
ALGAE	72H EC0	0.15	mg/l
DAPHNIA	21D NOEC	0.013	mg/l
DAPHNIA	48H EC0	0.16	mg/l
DAPHNIA	48H LL50	1.7	mg/l
FISH	96H LC0	0.5	mg/l
DIPROPYLENEGLYCOL DIBENZOATE			
ALGAE	72H LL50	4.9	mg/l
ALGAE	72H NOELR	1.0	mg/l
Daphnid	48H LL50	19.3	mg/l
FISH	96H LC50	3.7	mg/l

12.3	Bioaccumulative	potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6 Other adverse effects

Very toxic to aquatic organisms.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal operations:

Transfer to a suitable container and arrange for collection by specialised disposal company.

Waste code number

08 05 01

Disposal of packaging

Arrange for collection by specialised disposal company.

NB

The user's attention is drawn to the possible existence of regional or national regulations regarding disposal. 14. TRANSPORT INFORMATION

14.1 UN number UN3082

14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUID, N.O.S. (Contains: DIISOPROPYLNAPHTHALENE ISOMERS)

14.3 Transport hazard class(es)
 14.4 Packing group
 14.5 Environmental hazards
 Marine pollutant:

14.6 Special precautions for user No special precautions.

Tunnel code E
Transport category 3

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture Not applicable.

15.2 Chemical Safety Assessment

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

EN 9/9

16. OTHER INFORMATION

This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H304: May be fatal if swallowed and enters airways.

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **H335** May cause respiratory irritation.
- **H351** Suspected of causing cancer <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
- H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.
- H400 Very toxic to aquatic life.
- **H410** Very toxic to aquatic life with long lasting effects.
- **H412** Harmful to aquatic life with long lasting effects.

Legal disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.