

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**VariKEM 100, Härter (Komponente B)**

Revision date: 21.06.2023

Product code:

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

**1.1. Product identifier**

VariKEM 100, Härter (Komponente B)

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

**Use of the substance/mixture**

Isocyanate component of a 2-component special synthetic resin system for industrial or professional applications

**Uses advised against**

Any non-intended use.

**1.3. Details of the supplier of the safety data sheet**

Company name:	Schmitz-Metallographie GmbH	
Street:	Kaiserstraße 100	
Place:	D-52134 Herzogenrath	
Telephone:	02407 / 568296-0	Telefax: 02407 / 568296-9
E-mail:	info@schmitz-metallographie.de	
Contact person:	Herr Füllmann	
E-mail:	info@schmitz-metallographie.de	
Internet:	www.schmitz-metallographie.de	

**1.4. Emergency telephone number:**

02407 / 568296-0 (Mo-Fr 9:00 - 16:00)

**Further Information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Regulation (EC) No 1272/2008**

Acute Tox. 4; H332  
Asp. Tox. 1; H304  
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  
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**

**Regulation (EC) No 1272/2008**

**Hazard components for labelling**

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate  
Bis(isopropyl)naphthalene

**Signal word:** Danger

**Pictograms:**



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**Hazard statements**

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.
H410	Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P331	Do NOT induce vomiting.
P501	Dispose of contents/container to local/regional/national/international regulations.

**Special labelling of certain mixtures**

EUH204	Contains isocyanates. May produce an allergic reaction.
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**2.3. Other hazards**

The mixture contains the following substances fulfilling the PBT criteria according to REACH, annex XIII: 4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate.  
This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria. This product does not contain a substance (> 0,1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (Regulation (EC) No 1272/2008)	
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	50 - 100 %
	202-966-0	615-005-00-9
		01-2119457014-47
	Carc. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, STOT RE 2; H351 H332 H315 H319 H334 H317 H335 H373	
38640-62-9	Bis(isopropyl)naphthalene	25 - 50 %
	254-052-6	01-2119565150-48
	Asp. Tox. 1, Aquatic Chronic 1; H304 H410	

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
101-68-8	202-966-0	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	50 - 100 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = (0,368) mg/l (dusts or mists); dermal: LD50 = > 9400 mg/kg; oral: LD50 = >5000 mg/kg Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 Resp. Sens. 1; H334: >= 0,1 - 100 STOT SE 3; H335: >= 5 - 100	
38640-62-9	254-052-6	Bis(isopropyl)naphthalene	25 - 50 %
		dermal: LD50 = > 9250 mg/kg; oral: LD50 = 15180 mg/kg	

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#### Further Information

Product does not contain listed SVHC substances > 0.1 % according to Regulation (EC) No. 1907/2006 Article 59 (REACH)

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In all cases of doubt, or when symptoms persist, seek medical advice.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. In case of skin irritation, seek medical treatment.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of troubles or persistent symptoms, consult an ophthalmologist.

#### After ingestion

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Observe risk of aspiration if vomiting occurs. Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice. Always assume that aspiration has occurred. Seek professional medical attention or send the casualty to a hospital. Do not wait for symptoms to develop.

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

Inhalation can cause damage to the respiratory tract or lungs.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media

Sand. Foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder. In case of major fire and large quantities: Water spray jet. Water mist.

#### Unsuitable extinguishing media

High power water jet.

### 5.2. Special hazards arising from the substance or mixture

Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>) Nitrogen oxides (NO<sub>x</sub>). Hydrocyanic acid (hydrocyanic acid).

### 5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. In case of fire: Wear self-contained breathing apparatus.

#### Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

See protective measures under point 7 and 8.

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#### For non-emergency personnel

Wear personal protection equipment (refer to section 8).

#### For emergency responders

No special measures are necessary.

#### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Eliminate leaks immediately. Prevent spread over a wide area (e.g. by containment or oil barriers). Do not allow to enter into soil/subsoil. If required, notify relevant authorities according to all applicable regulations.

#### 6.3. Methods and material for containment and cleaning up

##### For containment

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Treat the recovered material as prescribed in the section on waste disposal.

##### For cleaning up

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

Wear suitable protective clothing. ( See section 8. )

##### Advice on protection against fire and explosion

Usual measures for fire prevention.

##### Advice on general occupational hygiene

Always close containers tightly after the removal of product. When using do not eat, drink or smoke. Wash hands before breaks and after work.

##### Further information on handling

General protection and hygiene measures: See section 8.

#### 7.2. Conditions for safe storage, including any incompatibilities

##### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Only use containers specifically approved for the substance/product.

Make sure spills can be contained (e.g. sump pallets or kerbed areas).

##### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Radioactive substances. Infectious substances. Food and animal feedingstuff.

##### Further information on storage conditions

Recommended storage temperature: 20 °C

Protect against: frost. UV-radiation/sunlight. heat. Humidity

#### 7.3. Specific end use(s)

See section 1.

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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**Occupational exposure limits**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
101-68-8	4,4'-Methylene-diphenyl diisocyanate (as -NCO)	0.005	-		TWA (8 h)	

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate			
Consumer DNEL, acute		oral	systemic	20 mg/kg bw/day
Consumer DNEL, acute		dermal	systemic	25 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	50 mg/kg bw/day
Consumer DNEL, acute		dermal	local	17,2 mg/cm <sup>2</sup>
Worker DNEL, acute		dermal	local	28,7 mg/cm <sup>2</sup>
Consumer DNEL, acute		inhalation	systemic	0,05 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	systemic	0,1 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	systemic	0,025 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	systemic	0,05 mg/m <sup>3</sup>
Consumer DNEL, acute		inhalation	local	0,05 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	0,1 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	0,025 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	0,05 mg/m <sup>3</sup>
38640-62-9	Bis(isopropyl)naphthalene			
Worker DNEL, long-term		inhalation	systemic	8,4 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	2,38 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,48 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	0,85 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,85 mg/kg bw/day

**PNEC values**

CAS No	Substance	Value
Environmental compartment		
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	
Freshwater		1 mg/l
Freshwater (intermittent releases)		10 mg/l
Marine water		0,1 mg/l
Micro-organisms in sewage treatment plants (STP)		1 mg/l
Soil		1 mg/kg
38640-62-9	Bis(isopropyl)naphthalene	
Freshwater		0 mg/l
Marine water		0 mg/l
Freshwater sediment		0,853 mg/kg
Marine sediment		0,085 mg/kg

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Secondary poisoning	25 mg/kg
Micro-organisms in sewage treatment plants (STP)	0,15 mg/l
Soil	0,171 mg/kg

**8.2. Exposure controls**



**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

Provide adequate ventilation.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

Wear safety glasses; chemical goggles (if splashing is possible). EN 166

**Hand protection**

In case of prolonged or frequently repeated skin contact:

Wear suitable gloves.

Suitable material:

FKM (fluororubber). - Thickness of glove material: 0,4 mm

Breakthrough time  $\geq$  8 h

Butyl rubber. - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

CR (polychloroprenes, Chloroprene rubber). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

NBR (Nitrile rubber). - Thickness of glove material: 0,35 mm

Breakthrough time  $\geq$  8 h

PVC (Polyvinyl chloride). - Thickness of glove material: 0,5 mm

Breakthrough time  $\geq$  8 h

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The selected protective gloves have to satisfy the specifications of EU Directive EC/2016/425 and the standard EN 374 derived from it.

Before using check leak tightness / impermeability. In the case of wanting to use the gloves again, clean them before taking off and air them well.

**Skin protection**

Suitable protective clothing: Lab apron.

**Respiratory protection**

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

-Exceeding exposure limit values

-Insufficient ventilation and aerosol or mist formation

Suitable respiratory protective equipment: particulates filter device (DIN EN 143). type: A1

The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

**Environmental exposure controls**

Do not allow uncontrolled discharge of product into the environment.

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**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state: liquid  
 Colour: not determined  
 Odour: characteristic  
 Odour threshold: not determined

	<b>Test method</b>
Melting point/freezing point:	15 °C
Boiling point or initial boiling point and boiling range:	> 230 °C DIN 53171
Flammability:	not determined
Lower explosion limits:	0,4 vol. %
Upper explosion limits:	4,7 vol. %
Flash point:	141 °C
Auto-ignition temperature:	425 °C DIN 51794
Decomposition temperature:	not determined
pH-Value (at 20 °C):	7 ISO 8975
Viscosity / kinematic:	not determined
Water solubility:	Immiscible
Solubility in other solvents	
not determined	
Dissolution rate:	not relevant
Partition coefficient n-octanol/water:	not determined
Dispersion stability:	not relevant
Vapour pressure:	not determined
Density (at 20 °C):	1,2 g/cm <sup>3</sup> ISO 2811
Bulk density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not relevant

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties  
 none  
 Sustaining combustion: No data available  
 Self-ignition temperature  
 Solid: not determined  
 Gas: not determined  
 Oxidizing properties  
 none

**Other safety characteristics**

Evaporation rate: not determined  
 Solvent separation test: not determined  
 Solvent content: 0%  
 Solid content: 63,4%  
 Sublimation point: not determined  
 Softening point: not determined  
 Pour point: not determined  
 Viscosity / dynamic:  
 (at 20 °C) 35 mPa·s ISO 9371  
 Flow time: not determined

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**Further Information**

No information available.

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No information available.

**10.2. Chemical stability**

The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

No hazardous reaction when handled and stored according to provisions.  
Refer to chapter 10.5.

**10.4. Conditions to avoid**

Protect against: UV-radiation/sunlight. heat.

**10.5. Incompatible materials**

Materials to avoid: Oxidizing agents, strong. Reducing agents, strong. Water. Amines. Alcohols. glycol.

**10.6. Hazardous decomposition products**

Can be released in case of fire: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>) Nitrogen oxides (NO<sub>x</sub>).  
Hydrocyanic acid (hydrocyanic acid).

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

**Toxicokinetics, metabolism and distribution**

No information available.

**Acute toxicity**

Harmful if inhaled.

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 5,550 mg/l; ATE (inhalation dust/mist) 1,500 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate				
	oral	LD50 >5000 mg/kg	Rat	RTECS	
	dermal	LD50 > 9400 mg/kg	Rabbit	ECHA Dossier	OECD Guideline 402
	inhalation vapour	ATE 11 mg/l			
	inhalation (4 h) dust/mist	LC50 (0,368) mg/l	Rat	ECHA Dossier	OECD Guideline 403
38640-62-9	Bis(isopropyl)naphthalene				
	oral	LD50 15180 mg/kg	Rat	ECHA Dossier	OECD Guideline 401
	dermal	LD50 > 9250 mg/kg	Rat	ECHA Dossier	OECD Guideline 402

**Irritation and corrosivity**

Causes skin irritation.

Causes serious eye irritation.



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**Sensitising effects**

Contains isocyanates. May produce an allergic reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)  
May cause an allergic skin reaction. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of causing cancer. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)  
Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause respiratory irritation. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure. (4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate)

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**11.2. Information on other hazards**

**Endocrine disrupting properties**

This product does not contain a substance (> 0,1%) that has endocrine disrupting properties with respect to humans as no components meets the criteria.

**Other information**

No data available.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Very toxic to aquatic life with long lasting effects.  
The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate					
	Acute fish toxicity	LC50 > 1000 mg/l	96 h	Danio rerio	101-68-8	OECD Guideline 203
	Algae toxicity	NOEC 1640 mg/l	3 d	Desmodesmus subspicatus		OECD Guideline 201
	Crustacea toxicity	NOEC >= 10 mg/l	21 d	Daphnia magna	ECHA Dossier	OECD Guideline 211
	Acute bacteria toxicity	(EC50 > 100 mg/l)	3 h	Activated sludge	ECHA Dossier	OECD Guideline 209

**12.2. Persistence and degradability**

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate			
	OECD Guideline 302C	0%*	28	101-68-8
	Not readily biodegradable (according to OECD criteria)			

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow

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101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	4,51
38640-62-9	Bis(isopropyl)naphthalene	6,081

**BCF**

CAS No	Chemical name	BCF	Species	Source
101-68-8	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	92	Cyprinus carpio	ECHA Dossier
38640-62-9	Bis(isopropyl)naphthalene	ca. 1800 - ca. 6400	Cyprinus carpio	ECHA Dossier

**12.4. Mobility in soil**

No information available.

**12.5. Results of PBT and vPvB assessment**

The mixture contains the following substances fulfilling the PBT criteria according to REACH, annex XIII:  
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1%.

**12.7. Other adverse effects**

No information available.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

Dispose of waste according to applicable legislation. Consult the local waste disposal expert about waste disposal. Non-contaminated packages may be recycled. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

**List of Wastes Code - residues/unused products**

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

**List of Wastes Code - used product**

160305 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; off-specification batches and unused products; organic wastes containing hazardous substances; hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Bis(isopropyl)naphthalene)

**14.3. Transport hazard class(es):**

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**14.4. Packing group:**

Hazard label:

III

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

Tunnel restriction code:

-

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Bis(isopropyl)naphthalene)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

**Marine transport (IMDG)**

**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Bis(isopropyl)naphthalene)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Marine pollutant:

YES

Special Provisions:

274, 335, 969

Limited quantity:

5 L

Excepted quantity:

E1

EmS:

F-A, S-F

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Bis(isopropyl)naphthalene)

**14.3. Transport hazard class(es):**

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**14.4. Packing group:**

III

Hazard label:

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Special Provisions:	A97 A158 A197 A215
Limited quantity Passenger:	30 kg G
Passenger LQ:	Y964
Excepted quantity:	E1
IATA-packing instructions - Passenger:	964
IATA-max. quantity - Passenger:	450 L
IATA-packing instructions - Cargo:	964
IATA-max. quantity - Cargo:	450 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Bis(isopropyl)naphthalene

**14.6. Special precautions for user**

Safe handling: see section 7

Personal protection equipment: see section 8

**14.7. Maritime transport in bulk according to IMO instruments**

not relevant

**SECTION 15: Regulatory information**

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

**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 56

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

Information according to 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment

**Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (amended by Regulation (EU) No 2020/878)

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

REACH 1907/2006 Appendix XVII, No (mixture): 3, 56 ( )

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 3 - highly hazardous to water

**15.2. Chemical safety assessment**

For the following substances of this mixture a chemical safety assessment has been carried out:

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate

**SECTION 16: Other information**

**Changes**

Rev. 1,0; Initial release: 21.06.2023

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging of substances and mixtures

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DNEL: Derived No Effect Level  
d: day(s)  
EINECS: European INventory of Existing Commercial chemical Substances  
ELINCS: European List of Notified Chemical Substances  
ECHA: European Chemicals Agency  
EWC: European Waste Catalogue  
IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
h: hour  
LOAEL: Lowest observed adverse effect level  
LOAEC: Lowest observed adverse effect concentration  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
NOAEL: No observed adverse effect level  
NOAEC: No observed adverse effect concentration  
NLP: No-Longer Polymers  
N/A: not applicable  
OECD: Organisation for Economic Co-operation and Development  
PNEC: predicted no effect concentration  
PBT: Persistent bioaccumulative toxic  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )  
REACH: Registration, Evaluation, Authorisation of Chemicals  
SVHC: substance of very high concern  
TRGS: Technische Regeln für Gefahrstoffe  
UN: United Nations  
VOC: Volatile Organic Compounds  
WGK: Water Hazard Class (Germany)

**Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]**

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

**Relevant H and EUH statements (number and full text)**

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.

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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.
H410	Very toxic to aquatic life with long lasting effects.
EUH204	Contains isocyanates. May produce an allergic reaction.

**Further Information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*