Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 05.02.2024 *Version number 19 (replaces version 18)* *Revision: 05.02.2024*

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

· **1.1 Product identifier**
· **Creation date version 1** 24.01.2018

· **Trade name AltroFoam SF 50 Comp. B**

· **Article number:** P2396

· **Utilization of the substance of the formulation:** Hardener for polyols for the production of polyurethanes
· **UFI:** 49J2-SPCK-6406-YVYC
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
For use in the do-it-yourself section is a further information available, see "Fact Sheet for resellers".

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
ALTROPOL KUNSTSTOFF GmbH
Rudolf-Diesel-Str 9 - 13
D-23617 Stockelsdorf
Tel. +49 (0)451-49960-0
Fax. +49 (0)451-49960-20
e-mail: info@altropol.de

· **Further information obtainable from:** environment protection department
· **1.4 Emergency telephone number:**
During normal opening times (7 am - 5 pm)
phone : +49 (0)451-49960-0
National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**

GHS08 health hazard

Resp. Sens. 1	H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carc. 2	H351 Suspected of causing cancer.
STOT RE 2	H373 May cause damage to the lung, the respiratory system and the respiratory tract through prolonged or repeated exposure.

GHS07

Acute Tox. 4	H332 Harmful if inhaled.
Skin Irrit. 2	H315 Causes skin irritation.
Eye Irrit. 2	H319 Causes serious eye irritation.
Skin Sens. 1	H317 May cause an allergic skin reaction.
STOT SE 3	H335 May cause respiratory irritation.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
· **Hazard pictograms**

GHS07 GHS08

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· ***Signal word*** *Danger*

· ***Hazard-determining components of labelling:***
diphenylmethane-4,4'-di-isocyanante
diphenylmethane-2,4'-diisocyanate
diphenylmethanediisocyanate,isomeres and homologues
diphenylmethane-2,2'-diisocyanate
isophthaloyl dichloride

· ***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 the lung, the respiratory system and the respiratory tract 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/hearing protection.*
P284	*[In case of inadequate ventilation] wear respiratory protection.*
P305+P351+P338	*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
P405	*Store locked up.*
P501	*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· ***Additional information:***
EUH204 Contains isocyanates. May produce an allergic reaction.
As from 24 August 2023 adequate training is required before industrial or professional use.

· ***2.3 Other hazards***
The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

· ***Results of PBT and vPvB assessment***
· ***PBT:*** *Not applicable.*
· ***vPvB:*** *Not applicable.*

SECTION 3: Composition/information on ingredients

· ***3.2 Mixtures***
· ***Description:*** *Mixture: consisting of the following components.*

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· **Dangerous components:**

CAS: 101-68-8 EINECS: 202-966-0	diphenylmethane-4,4'-di-isocyanante Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	25-50%
CAS: 5873-54-1 EINECS: 227-534-9	diphenylmethane-2,4'-diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	25-50%
CAS: 9016-87-9 EC number: 618-498-9	diphenylmethanediisocyanate,isomeres and homologues Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	10-25%
CAS: 2536-05-2 EINECS: 219-799-4	diphenylmethane-2,2'-diisocyanate Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335, EUH204 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 5 % Skin Irrit. 2; H315: C ≥ 5 % Resp. Sens. 1; H334: C ≥ 0.1 % STOT SE 3; H335: C ≥ 5 %	≥2.5-<5%
CAS: 99-63-8 EINECS: 202-774-7	isophthaloyl dichloride Acute Tox. 3, H331; Skin Corr. 1A, H314; Eye Dam. 1, H318; Acute Tox. 4, H312	0.1-0.25%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
In contact with the skin preferably with cleaners based
Polyethylene wash or clean with plenty of hot water and soap. In reactions of
Skin doctor immediately.
If skin irritation continues, consult a doctor.
· **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Protect unharmed eye.

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· ***After swallowing:***
Do not induce vomiting; call for medical help immediately.
If swallowed, rinse mouth with water (only if the person is conscious).
A person vomiting while laying on their back should be turned onto their side.
Call a doctor immediately.
· ***4.2 Most important symptoms and effects, both acute and delayed***
May cause respiratory sensitization or asthma-like symptoms
· ***4.3 Indication of any immediate medical attention and special treatment needed***
The product irritates the respiratory tract and may trigger skin and respiratory sensitization. Treatment of acute irritation or bronchial constriction is primarily symptomatic. Depending on the extent of exposure and the symptoms may be necessary a longer medical attention.

SECTION 5: Firefighting measures

· ***5.1 Extinguishing media***
· ***Suitable extinguishing agents:***
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· ***For safety reasons unsuitable extinguishing agents:*** *Water with full jet*
· ***5.2 Special hazards arising from the substance or mixture***
In case of fire, formation of carbon monoxide, nitrogen oxide, isocyanate vapour, and traces of hydrogen cyanide is possible. Fireman have to wear self-contained breathing apparatus. Do not let enter contaminated extinguishing water into the soil, groundwater or surface waters.
At ambient pressure build fire, danger of bursting. Cool fire exposed containers with water and if possible remove from the danger zone.
· ***5.3 Advice for firefighters***
· ***Protective equipment:***
Wear self-contained respiratory protective device.
Wear chemical resistant overalls

SECTION 6: Accidental release measures

· ***6.1 Personal precautions, protective equipment and emergency procedures***
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
· ***6.2 Environmental precautions:*** *Do not allow to enter sewers/ surface or ground water.*
· ***6.3 Methods and material for containment and cleaning up:***
Remove mechanically, with residual wet, absorbent material (eg sawdust, chemical binder based on Calcium silicate hydrate, sand). After approx 1 hour transfer to waste container and do not seal (evolution of CO2). Keep damp in a safe ventilated area for several Leave days.
· ***6.4 Reference to other sections***
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· ***7.1 Precautions for safe handling***
Exhaust ventilation necessary if product is sprayed. Avoid contact with skin and eyes. The air should be drawn away from the personnel handling the product.
At workplaces or system parts where isocyanate aerosols and / or vapors in higher concentrations can arise (e.g. pressure relief, mold ventilation, Blowing through mixing heads with compressed air), the occupational hygiene limit values are prevented. The air movement must be carried out by the people be done away. The effectiveness of the systems must be checked at regular intervals.
Air limit values mentioned in Chapter 8 must be monitored.
The personal protective measures described in Chapter 8 must be observed. Contact with the skin and eyes as well as the inhalation of the vapors absolutely avoid.

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Keep away from food and luxury items. Hands before breaks and at the end of work wash and apply protective skin ointment. Store work clothes separately. Soiled, Take off soaked clothing immediately.
The protective measures necessary when dealing with isocyanates must be observed. Avoid contact with skin and eyes and inhalation of vapors.
· **Information about fire - and explosion protection:**
Protect against electrostatic charges.
Keep ignition sources away - Do not smoke.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Keep container tightly closed and dry and storage in a good ventilated room.

Storage temperature: 20 - 25 °C.
· **Information about storage in one common storage facility:**
Store away from water.
Store away from foodstuffs.
· **Further information about storage conditions:**
Keep container tightly sealed.
Protect from frost.
Protect from humidity and water.
Protect from heat and direct sunlight.
· **Storage class:** 10
· **7.3 Denomination of Origin** Made in Germany
· **Processing information** Homogenize content before use
· **General remark** For processing instructions see data sheet

SECTION 8: Exposure controls/personal protection

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
101-68-8 diphenylmethane-4,4'-di-isocyanante	
OEL (Ireland)	Long-term value: 0.005 ppm as -NCO; Sens
WEL (Great Britain)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO
5873-54-1 diphenylmethane-2,4'-diisocyanate	
OEL (Ireland)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ as -NCO; Sens.
WEL (Great Britain)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO
9016-87-9 diphenylmethanediisocyanate,isomeres and homologues	
OEL (Ireland)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ as -NCO; Sens.
WEL (Great Britain)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO
2536-05-2 diphenylmethane-2,2'-diisocyanate	
OEL (Ireland)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ as -NCO; Sens.

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WEL (Great Britain)	Short-term value: 0.07 mg/m³ Long-term value: 0.02 mg/m³ Sen; as -NCO

· **DNELs**

101-68-8 diphenylmethane-4,4'-di-isocyanante

Oral	DNEL Acute - systemic effects	20 mg/kg bw/day (General population)
Dermal	DNEL Acute - local effects	17.2 mg/cm² (General population)
		28.7 mg/cm² (workers)
	DNEL Acute - systemic effects	25 mg/kg bw/day (General population)
		50 mg/kg bw/day (workers)
Inhalative	DNEL systemic effects - long term exposure	0.025 mg/m³ (General population)
		0.05 mg/m³ (workers)
	DNEL local effects - long term exposure	0.025 mg/m³ (General population)
		0.05 mg/m³ (workers)
	DNEL Acute - systemic effects	0.05 mg/m³ (General population)
		0.1 mg/m³ (workers)
	DNEL Acute - local effects	0.05 mg/m³ (General population)
		0.1 mg/m³ (workers)

5873-54-1 diphenylmethane-2,4'-diisocyanate

Oral	DNEL Acute systemic effects - short term	20 mg/kg bw/day (General population)
Dermal	DNEL Acute systemic effects - short term	25 mg/kg bw/day (General population)
		50 mg/kg bw/day (workers)
	DNEL Acute local effects - short term	17.2 mg/cm² (General population)
		28.7 mg/cm² (workers)
Inhalative	DNEL Acute systemic effects - short term	0.05 mg/m³ (General population)
		0.1 mg/m³ (workers)
	DNEL systemic effects - long term exposure	0.025 mg/m³ (General population)
		0.05 mg/m³ (workers)
	DNEL Acute local effects - short term	0.05 mg/m³ (General population)
		0.1 mg/m³ (workers)
	DNEL Acute local effects - long term	0.05 mg/m³ (workers)
	DNEL local effects - long term exposure	0.025 mg/m³ (General population)

2536-05-2 diphenylmethane-2,2'-diisocyanate

Inhalative	DNEL systemic effects - long term exposure	0.025 mg/m³ (General population)
	DNEL local effect - long term	0.025 mg/m³ (General population)
		0.05 mg/m³ (workers)
	DNEL Acute - local effects	0.05 mg/m³ (General population)
		0.1 mg/m³ (workers)

99-63-8 isophthaloyl dichloride

Dermal	DNEL systemic effects - long term exposure	4.47 mg/kg bw/d (workers)
Inhalative	DNEL systemic effects - long term exposure	3.94 mg/m³ (workers)

· **PNECs**

101-68-8 diphenylmethane-4,4'-di-isocyanante

PNEC	1 mg/kg (soil (Boden))
PNEC STP	1 mg/L (sewage plant)
PNEC	1 mg/l (freshwater)
	0.1 mg/l (marine water)

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	10 mg/l (intermittent releases)
5873-54-1 diphenylmethane-2,4'-diisocyanate	
PNEC	>1 mg/kg (soil (Boden))
PNEC	>1 mg/l (freshwater)
	>0.1 mg/l (marine water)
	>1 mg/l (sewage plant)
2536-05-2 diphenylmethane-2,2'-diisocyanate	
PNEC	1 mg/kg (soil (Boden))
PNEC	1 mg/l (freshwater)
	0.1 mg/l (marine water)
	1 mg/l (sewage plant)
	10 mg/l (intermittent releases)
99-63-8 isophthaloyl dichloride	
PNEC	0.6365 mg/kg (freshwater- sediment)
	0.0637 mg/kg (seawater - sediment)
	0.0492 mg/kg (soil (Boden))
PNEC	0.133 mg/l (freshwater)
	0.0133 mg/l (marine water)
	6.171 mg/l (sewage plant)
	1.337 mg/l (intermittent releases)

· **Ingredients with biological limit values:**	
101-68-8 diphenylmethane-4,4'-di-isocyanante	
BMGV (Great Britain)	1 µmol creatinine/mol Medium: urine Sampling time: At the end of the period od exposure Parameter: isocyanate-derived diamine
5873-54-1 diphenylmethane-2,4'-diisocyanate	
BMGV (Great Britain)	1 µmol creatinine/mol Medium: urine Sampling time: At the end of the period od exposure Parameter: isocyanate-derived diamine
2536-05-2 diphenylmethane-2,2'-diisocyanate	
BMGV (Great Britain)	1 µmol creatinine/mol Medium: urine Sampling time: At the end of the period od exposure Parameter: isocyanate-derived diamine

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as personal protective equipment**
· **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
· **Respiratory protection:**
An inadequately ventilated places and during spraying respirator
required. We recommend using a self-contained breathing apparatus.
In case of hypersensitivity of the respiratory tract and skin (asthma, chronic bronchitis, chronic skin disease) is inadvisable to work with the product. Symptoms in the respiratory tract can also occur several hours after overexposure ..

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· **Hand protection**

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**

Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Colour:**	Brown
· **Odour:**	Characteristic
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	41 °C
· **Boiling point or initial boiling point and boiling range**	ca. 230 °C
· **Flammability**	Not applicable.
· **Lower and upper explosion limit**	
· **Lower:**	Not determined.
· **Upper:**	Not determined.
· **Flash point:**	ca. 200 °C
· **Auto-ignition temperature:**	400 °C
· **Decomposition temperature:**	Not determined.
· **pH**	Not determined.
· **Viscosity:**	
· **Kinematic viscosity**	Not determined.
· **Dynamic at 20 °C:**	250 mPas
· **Solubility**	
· **water:**	Insoluble.
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure at 25 °C:**	0.0001 hPa
· **Density and/or relative density**	
· **Density at 20 °C:**	1.22 g/cm³
· **Relative density**	Not determined.
· **Vapour density**	Not determined.

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· **9.2 Other information**	
· **Appearance:**	
· **Form:**	Fluid
· **Important information on protection of health and environment, and on safety.**	
· **Ignition temperature:**	Product is not selfigniting.
· **Explosive properties:**	Product does not present an explosion hazard.
· **Solvent content:**	
· **Organic solvents:**	0.0 %
· **VOC (EC)**	0.0 g/l
· **Change in condition**	
· **Evaporation rate**	Not determined.

· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Void
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

SECTION 10: Stability and reactivity

· **10.1 Reactivity**
Diisocyanates react with many materials where the reaction rate with the temperature and with increasing contact increases and the reactions can be severe. Contact is increased by stirring or by mixing of another substance with Diisocyanate. Diisocyanates are not soluble in water, sink to the bottom but react slowly at the Interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. In the reaction with water to form carbon dioxide and heat.
· **10.2 Chemical stability**
· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
· **10.3 Possibility of hazardous reactions**
Exothermic reaction with amines and alcohols; reacts with water forming C02, in closed containers risk of bursting owing to increase of pressure.
· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:** water , alcohol , amine , base and acid
· **10.6 Hazardous decomposition products:** At the air > 300 °C: acrolein

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SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity**
Harmful if inhaled.

· **LD/LC50 values relevant for classification:**		
101-68-8 diphenylmethane-4,4'-di-isocyanante		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit) (OECD 402 Acute Dermal Toxicity)
5873-54-1 diphenylmethane-2,4'-diisocyanate		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit) (OECD 402 Acute Dermal Toxicity)
9016-87-9 diphenylmethanediisocyanate,isomeres and homologues		
Oral	LD50	>2,000 mg/kg (rat) (OECD 401 Acute Oral Toxicity)
Dermal	LD50	>9,400 mg/kg (rabbit) (OECD 402 Acute Dermal Toxicity)
2536-05-2 diphenylmethane-2,2'-diisocyanate		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>9,400 mg/kg (rabbit) (OECD 402 Acute Dermal Toxicity)
99-63-8 isophthaloyl dichloride		
Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	1,410 mg/kg (rat)
Inhalative	LC50/4 h	1.5 mg/l (rat)

· **Skin corrosion/irritation**
Causes skin irritation.
· **Serious eye damage/irritation**
Causes serious eye irritation.
· **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity**
Suspected of causing cancer.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure**
May cause respiratory irritation.
· **STOT-repeated exposure**
May cause damage to the lung, the respiratory system and the respiratory tract through prolonged or repeated exposure.
· **Aspiration hazard** Based on available data, the classification criteria are not met.
· **11.2 Information on other hazards**

· **Endocrine disrupting properties**
None of the ingredients is listed.

SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
101-68-8 diphenylmethane-4,4'-di-isocyanante	
LC50 (96 h)	>1,000 mg/l (Danio Rerio) (OECD 203 Fish, Acute Toxicity Test)
EC50 (24h)	>1,000 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)

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EC50(3h)	>100 mg/l (activated sludge) (OECD209Activated Sluge,Respiration Inhibition Test)
NOEC / 21d	>10 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)
NOEC / 14d	>1,000 mg/kg (Eisenia fetida (Regenwurm)) (OECD 207 Earthworm, Acute Toxicity Tests)
	>1,000 mg/kg (Avena sativa (Hafer)) (OECD 208 Terrestrial Plant Test)
	>1,000 mg/kg (Lactuca Sativa (Kopfsalat)) (OECD 208 Terrestrial Plant Test)
ErC50/72h	>1,640 mg/l (Scenedesmus subspicatus) (OECD 201 Alga, Growth Inhibition Test)
5873-54-1 diphenylmethane-2,4'-diisocyanate	
LC50 (96 h)	>1,000 mg/l (Danio Rerio) (OECD 203 Fish, Acute Toxicity Test)
EC50 (24h)	>1,000 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)
EC50(3h)	>100 mg/l (activated sludge) (OECD209Activated Sluge,Respiration Inhibition Test)
NOEC / 21d	>10 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)
NOEC / 14d	>1,000 mg/kg (Eisenia fetida (Regenwurm)) (OECD 207 Earthworm, Acute Toxicity Tests)
	>1,000 mg/kg (Avena sativa (Hafer)) (OECD 208 Terrestrial Plant Test)
	>1,000 mg/kg (Lactuca Sativa (Kopfsalat)) (OECD 208 Terrestrial Plant Test)
ErC50/72h	>1,640 mg/l (Scenedesmus subspicatus) (OECD 201 Alga, Growth Inhibition Test)
9016-87-9 diphenylmethanediisocyanate,isomeres and homologues	
LC50 (96 h)	>1,000 mg/l (Danio Rerio) (OECD 203 Fish, Acute Toxicity Test)
EC50 (24h)	>1,000 mg/l (Daphnia Magna) (OECD 202)
EC50(3h)	>100 mg/l (activated sludge) (OECD209Activated Sluge,Respiration Inhibition Test)
NOEC / 21d	>10 mg/l (Daphnia Magna) (OECD 211 Daphnia Magna Reproduction Test)
NOEC / 14d	>1,000 mg/kg (Eisenia fetida (Regenwurm)) (OECD 207 Earthworm, Acute Toxicity Tests)
	>1,000 mg/kg (Avena sativa (Hafer)) (OECD 208 Terrestrial Plant Test)
	>1,000 mg/kg (Lactuca Sativa (Kopfsalat)) (OECD 208 Terrestrial Plant Test)
ErC50/72h	>1,640 mg/l (Scenedesmus subspicatus) (OECD 201 Alga, Growth Inhibition Test)
2536-05-2 diphenylmethane-2,2'-diisocyanate	
LC50 (96 h)	>1,000 mg/l (Danio Rerio) (OECD 203 Fish, Acute Toxicity Test)
EC50 (72 h)	>1,640 mg/l (Scenedesmus subspicatus) (OECD 201 Alga, Growth Inhibition Test)
EC50 (24h)	>1,000 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)
EC50(3h)	>100 mg/l (activated sludge) (OECD209Activated Sluge,Respiration Inhibition Test)
NOEC / 21d	>10 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)
NOEC / 14d	>1,000 mg/kg (Eisenia fetida (Regenwurm)) (OECD 207 Earthworm, Acute Toxicity Tests)
	>1,000 mg/kg (Avena sativa (Hafer)) (OECD 208 Terrestrial Plant Test)
	>1,000 mg/kg (Lactuca Sativa (Kopfsalat)) (OECD 208 Terrestrial Plant Test)
99-63-8 isophthaloyl dichloride	
LC50 (96 h)	134 mg/l (Elritze (Pimephales promelas))
EC50 (48 h)	>952 mg/l (Daphnia Magna) (OECD 202 Daphnia sp. Acute Immobilisation Test)
EC50(3h)	617 mg/l (activated sludge) (OECD209Activated Sluge,Respiration Inhibition Test)
ErC50(96h)	>996 mg/l (Desmodesmus subspicatus) (OECD 201 Alga, Growth Inhibition Test)

· **12.2 Persistence and degradability** No further relevant information available.
· **12.3 Bioaccumulative potential** No further relevant information available.
· **12.4 Mobility in soil** No further relevant information available.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
Isocyanate reacts with water at the interface to form carbon dioxide to form a solid, high-melting and insoluble reaction product (polyurea). This reaction is strongly promoted by surfactants or water-soluble solvents. Polyurea is inert Previous experience and non-degradable.

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· **Additional ecological information:**
· **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Dispose in accordance with applicable international, national and local laws, ordinances and statutes. For disposal within the EC, the appropriate waste code according to the European Waste Catalogue (EWC) should be used.
No disposal via the sewage

· **Uncleaned packaging:**
· **Recommendation:**
Packaging must be emptied directly after the last product removal (tear drops, powder rest, scraped carefully). After neutralization of adhering to the walls of residues are product and labeling of hazardous substances to devalue. These packages can packaging-specifically to access points to the existing collection systems chemical industry will be given for recycling. Containers must be recycled in accordance with national legislation and environmental regulations occur.

SECTION 14: Transport information

· **14.1 UN number or ID number** · **ADR, ADN, IMDG, IATA**	Void
· **14.2 UN proper shipping name** · **ADR, ADN, IMDG, IATA**	Void
· **14.3 Transport hazard class(es)** · **ADR, ADN, IMDG, IATA** · **Class**	Void
· **14.4 Packing group** · **ADR, IMDG, IATA**	Void
· **14.5 Environmental hazards:**	Not applicable.
· **14.6 Special precautions for user**	Not dangerous cargo. Sensitive to frost below 10 ° C. Avoid heat above +50 ° C. Protect from moisture. Keep away from food, foodstuff, acids and alkalis.
· **14.7 Maritime transport in bulk according to IMO instruments**	Not applicable.
· **UN "Model Regulation":**	Void

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
· **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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· ***Hazard pictograms***

GHS07 GHS08

· ***Signal word*** *Danger*

· ***Hazard-determining components of labelling:***
diphenylmethane-4,4'-di-isocyanante
diphenylmethane-2,4'-diisocyanate
diphenylmethanediisocyanate,isomeres and homologues
diphenylmethane-2,2'-diisocyanate
isophthaloyl dichloride

· ***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 the lung, the respiratory system and the respiratory tract 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/hearing protection.*
P284	*[In case of inadequate ventilation] wear respiratory protection.*
P305+P351+P338	*IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
P405	*Store locked up.*
P501	*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· ***Directive 2012/18/EU***
· ***Named dangerous substances - ANNEX I*** *None of the ingredients is listed.*
· ***REGULATION (EC) No 1907/2006 ANNEX XVII*** *Conditions of restriction: 3, 56a, 56b, 56c, 74*

· ***DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II***
None of the ingredients is listed.

· ***REGULATION (EU) 2019/1148***

· ***Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))***
None of the ingredients is listed.

· ***Annex II - REPORTABLE EXPLOSIVES PRECURSORS***
None of the ingredients is listed.

· ***Regulation (EC) No 273/2004 on drug precursors***
None of the ingredients is listed.

· ***Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors***
None of the ingredients is listed.

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· ***National regulations:***

· ***Technical instructions (air):***

Class	Share in %
I	75-100

· ***Waterhazard class:*** *Water hazard class 1 (VwVwS 17.05.99): slightly hazardous for water.*

· ***Other regulations, limitations and prohibitive regulations***
It should be noted the fact sheet of BG Chemie M 044 "Polyurethane production and processing / isocyanates".
· ***15.2 Chemical safety assessment:*** *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· ***Relevant phrases***
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
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.
EUH204 Contains isocyanates. May produce an allergic reaction.
· ***Recommended restriction of use***
The information in this safety data sheet corresponds to the best of our knowledge at the time of the revision. The information should give you clues for the safe handling of the product mentioned in this safety data sheet during storage, processing, transport and disposal. The details are not transferable to other products. Insofar as the product mentioned in this safety data sheet is mixed with other materials, mixed or processed, or subjected to processing, the information in this safety data sheet, unless expressly stated otherwise, can not be transferred to the new material produced in this way.
UFI code is valid in:
Germany
Austria
Romania
Spain
Netherlands

· ***Department issuing SDS:*** *environment protection department*

· ***Contact:*** *Herr Ottensmann Tel. +49 (0)2056-25863-7*
· ***Version number of previous version:*** *18*
· ***Abbreviations and acronyms:***
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
VOC: Volatile Organic Compounds (USA, EU)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)

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altropol

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LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Resp. Sens. 1: Respiratory sensitisation – Category 1
Skin Sens. 1: Skin sensitisation – Category 1
Carc. 2: Carcinogenicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2