

Ramsauer GmbH & Co KG
4822 Bad Goisern / H.

Date printed 12.04.2023, Revision 12.04.2023

Version 2.0. Supersedes version: 1.0

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

1.1 Product identifier

Konstruktionskleber Rapid 620

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

1.2.1 Relevant uses

Adhesive

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Ramsauer GmbH & Co KG
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Address enquiries to

Technical information

office@ramsauer.at

Safety Data Sheet

sdb@chemiebuero.de (No dispatch of safety data sheets)

Safety data sheets are available from the supplier.

1.4 Emergency telephone number

Advisory body



Call NHS 111 or a doctor

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (GB) CLP]

Skin Irrit. 2: H315 Causes skin irritation.
Skin Sens. 1: H317 May cause an allergic skin reaction.
Eye Irrit. 2: H319 Causes serious eye irritation.
Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT SE 3: H335 May cause respiratory irritation.
Carc. 2: H351 Suspected of causing cancer.
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

	The product is required to be labelled in accordance with regulation CLP.	
Hazard pictograms		
Signal word	DANGER	
Contains:	Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate 4,4'-Methylenediphenyl diisocyanate, oligomers 4,4'-Methylenediphenyl diisocyanate Dibutyltin dilaurate	
Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. 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.	
Precautionary statements	P260 Do not breathe vapours. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves / eye protection / face protection. P284 In case of inadequate ventilation wear respiratory protection. P302+P352 IF ON SKIN: Wash with plenty of water / soap. 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+P311 IF exposed or concerned: Call a POISON CENTER / doctor. P405 Store locked up. P501 Dispose of contents/container in accordance with local/national regulation.	
Special labelling	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

Environmental hazards	Does not contain any PBT or vPvB substances. Contains no ingredients with endocrine-disrupting properties.
Other hazards	Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

not applicable

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3.2 Mixtures

The product is a mixture.

Range [%]	Substance
10- <15	4,4'-Methylenediphenyl diisocyanate, oligomers CAS: 25686-28-6, EINECS/ELINCS: 500-040-3, Reg-No.: 01-2119457013-49-XXXX GHS/CLP: Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Eye Irrit. 2: H319 - Acute Tox. 4: H332 - Resp. Sens. 1: H334 - STOT SE 3: H335 - Carc. 2: H351 - STOT RE 2: H373 - EUH204 SCL [%]: >= 5: STOT SE 3: H335, >= 5: Eye Irrit. 2: H319, >= 5: Skin Irrit. 2: H315, >= 0.1: Resp. Sens. 1: H334
10- <15	Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate EINECS/ELINCS: 905-806-4, Reg-No.: 01-2119457015-45-XXXX GHS/CLP: 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 - EUH204 SCL [%]: >=5: STOT SE 3: H335, >=5: Skin Irrit. 2: H315, >=5: Eye Irrit. 2: H319, >=0.1: Resp. Sens. 1: H334
5 - <15	4,4'-Methylenediphenyl diisocyanate CAS: 101-68-8, EINECS/ELINCS: 202-966-0, EU-INDEX: 615-005-00-9, Reg-No.: 01-2119457014-47-XXXX GHS/CLP: Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Eye Irrit. 2: H319 - Acute Tox. 4: H332 - Resp. Sens. 1: H334 - STOT SE 3: H335 - Carc. 2: H351 - STOT RE 2: H373 - EUH204 SCL [%]: >= 5: STOT SE 3: H335, >= 5: Eye Irrit. 2: H319, >= 5: Skin Irrit. 2: H315, >= 0.1: Resp. Sens. 1: H334
1 - 5	Propylene carbonate CAS: 108-32-7, EINECS/ELINCS: 203-572-1, EU-INDEX: 607-194-00-1, Reg-No.: 01-2119537232-48-XXXX GHS/CLP: Eye Irrit. 2: H319
0.1 - <0.25	Dibutyltin dilaurate CAS: 77-58-7, EINECS/ELINCS: 201-039-8, EU-INDEX: 050-030-00-3, Reg-No.: 01-2119496068-27-XXXX GHS/CLP: Acute Tox. 4: H302 - Skin Corr. 1C: H314 - Skin Sens. 1: H317 - Repr. 1B: H360FD - Muta. 2: H341 - STOT SE 1: H370 - STOT RE 1: H372 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
 For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information	Remove contaminated soaked clothing immediately and dispose of safely.
Inhalation	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Ingestion	Seek medical advice immediately. Do not induce vomiting. Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions
 Irritant effects
 Nausea, vomiting.
 Drowsiness
 Vertigo
 Headache

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media Alcohol-resistant foam.
Dry powder.
Carbon dioxide.
Water spray jet.

Extinguishing media that must not be used Full water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire the following can be released:

Carbon monoxide (CO)
Nitrogen oxides (NO_x).
Hydrogen cyanide (HCN).
Isocyanate

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Do not inhale explosion and/or combustion gases.
Wear full protective suit.

Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

Collect contaminated firefighting water separately, must not be discharged into the drains.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Use personal protective equipment (protective gloves, safety glasses, protective clothing).
High risk of slipping due to leakage/spillage of product.
Use breathing apparatus if exposed to vapours/aerosol.

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.

6.3 Methods and material for containment and cleaning up

Take up mechanically.
Take up residues with absorbent material (e.g. sand, sawdust, general purpose binder, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provide suitable vacuuming at the processing machines.

Do not eat, drink, smoke or take drugs at work.
Remove contaminated soaked clothing immediately and dispose of safely.
After worktime and before work breaks the affected skin areas must be thoroughly cleaned.
Use barrier skin cream.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.

Prevent penetration into the ground.

Do not store together with food and animal food/diet.

Keep container tightly closed.

Keep container in a well-ventilated place.

Store in a dry place.

Protect from heat/overheating.

Recommended storage temperature: 15 - 25 °C

Do not keep at temperatures above 50 °C.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

Substance
4,4'-Methylenediphenyl diisocyanate
CAS: 101-68-8, EINECS/ELINCS: 202-966-0, EU-INDEX: 615-005-00-9, Reg-No.: 01-2119457014-47-XXXX
Long-term exposure: 0,02 mg/m ³ , as NCO, Sen
Short-term exposure (15-minute): 0,07 mg/m ³
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
EINECS/ELINCS: 905-806-4, Reg-No.: 01-2119457015-45-XXXX
Long-term exposure: 0,02 mg/m ³ , as NCO, Sen
Short-term exposure (15-minute): 0,07 mg/m ³
4,4'-Methylenediphenyl diisocyanate, oligomers
CAS: 25686-28-6, EINECS/ELINCS: 500-040-3, Reg-No.: 01-2119457013-49-XXXX
Long-term exposure: 0,02 mg/m ³ , as NCO, Sen
Short-term exposure (15-minute): 0,07 mg/m ³
Dibutyltin dilaurate
CAS: 77-58-7, EINECS/ELINCS: 201-039-8, EU-INDEX: 050-030-00-3, Reg-No.: 01-2119496068-27-XXXX
Long-term exposure: 0,1 mg/m ³ , as Sn, Sk
Short-term exposure (15-minute): 0,2 mg/m ³
Calcium carbonate
CAS: 471-34-1, EINECS/ELINCS: 207-439-9
Long-term exposure: 10 mg/m ³ , inhalable dust

Ingredients with occupational exposure limits to be monitored (EU)

not relevant

DNEL

Substance
Dibutyltin dilaurate, CAS: 77-58-7
Industrial, inhalative, Long-term - systemic effects, 20 µg/m ³
Industrial, dermal, Long-term - systemic effects, 430 µg/kg bw/day
Industrial, dermal, Acute - systemic effects, 2.08 mg/kg bw/day
general population, dermal, Acute - systemic effects, 500 µg/kg bw/day
general population, dermal, Long-term - systemic effects, 160 µg/kg bw/day
general population, inhalative, Long-term - systemic effects, 4.6 µg/m ³
general population, oral, Long-term - systemic effects, 3.1 µg/kg bw/day
general population, oral, Acute - systemic effects, 20 µg/kg bw/day
general population, inhalative, Acute - systemic effects, 40 µg/m ³
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
Industrial, inhalative, Acute - local effects, 0.1 mg/m ³
Industrial, inhalative, Long-term - local effects, 0.05 mg/m ³
general population, inhalative, Acute - local effects, 0.05 mg/m ³
general population, inhalative, Long-term - local effects, 0.025 mg/m ³
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8

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Industrial, inhalative, Acute - local effects, 0.1 mg/m ³
Industrial, inhalative, Long-term - local effects, 0.05 mg/m ³
general population, inhalative, Acute - local effects, 0.05 mg/m ³
general population, inhalative, Long-term - local effects, 0.025 mg/m ³
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
Industrial, dermal, Acute - systemic effects, 50 mg/kg bw/d
Industrial, inhalative, Acute - systemic effects, 0.1 mg/m ³
Industrial, dermal, Acute - local effects, 28.7 mg/cm ²
Industrial, inhalative, Acute - local effects, 0.1 mg/m ³
Industrial, inhalative, Long-term - systemic effects, 0.05 mg/m ³
Industrial, inhalative, Long-term - local effects, 0.05 mg/m ³
general population, inhalative, Long-term - systemic effects, 0.025 mg/m ³
general population, dermal, Acute - systemic effects, 25 mg/kg bW/d
general population, dermal, Acute - local effects, 17.2 mg/cm ²
general population, inhalative, Acute - local effects, 0.05 mg/m ³
general population, inhalative, Long-term - local effects, 0.025 mg/m ³
general population, oral, Acute - systemic effects, 20 mg/kg bw/d
general population, inhalative, Acute - systemic effects, 0.05 mg/m ³
Propylene carbonate, CAS: 108-32-7
Industrial, inhalative, Long-term - systemic effects, 70.53 mg/m ³
Industrial, dermal, Long-term - local effects, 10 mg/kg bw/day
Industrial, dermal, Long-term - systemic effects, 20 mg/kg bw/day
Industrial, inhalative, Long-term - local effects, 20 mg/m ³
general population, dermal, Long-term - local effects, 10 mg/kg bw/day
general population, oral, Long-term - local effects, 10 mg/kg bw/day
general population, inhalative, Long-term - local effects, 10 mg/m ³
general population, inhalative, Long-term - systemic effects, 17.4 mg/m ³

PNEC

Substance
Dibutyltin dilaurate, CAS: 77-58-7
sewage treatment plants (STP), 100 mg/L
seawater, 46.3 ng/L
freshwater, 463 ng/L
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
freshwater, 3.7 µg/L
sediment (seawater), 1.17 mg/kg sediment dw
sediment (freshwater), 11.7 mg/kg sediment dw
seawater, 0.37 µg/L
soil, 2.33 mg/kg soil dw
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
soil, 2.33 mg/kg soil dw
sediment (seawater), 1.17 mg/kg sediment dw
seawater, 0.37 µg/L
freshwater, 3.7 µg/L
sediment (freshwater), 11.7 mg/kg sediment dw
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
freshwater, 1 mg/l

seawater, 0.1 mg/l
sewage treatment plants (STP), 1 mg/l
soil, 1 mg/kg
Propylene carbonate, CAS: 108-32-7
soil, 0.81 mg/kg
sewage treatment plants (STP), 7400 mg/l
freshwater, 0.9 mg/l
seawater, 0.09 mg/l

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	safety glasses (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: 0.7 mm Butyl rubber, >480 min (EN 374-1/-2/-3). In splash contact: 0.4 mm Nitrile rubber, >480 min (EN 374-1/-2/-3).
Skin protection	Protective clothing (EN 340)
Other	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)
Thermal hazards	not determined
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	pasty
Form	pasty
Color	beige
Odor	characteristic
Odour threshold	not determined
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	not determined
Flash point [°C]	111
Flammability	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	not determined
Density [g/cm ³]	ca. 1.52 (20 °C / 68,0 °F)
Relative density	not determined
Bulk density [kg/m ³]	not applicable
Solubility in water	reacts with water
Solubility other solvents	No information available.
Partition coefficient [n-octanol/water]	not determined
Kinematic viscosity	not determined
Relative vapour density	not determined
Evaporation speed	not determined
Melting point [°C]	not determined
Auto-ignition temperature [°C]	not applicable
Decomposition temperature [°C]	not determined
Particle characteristics	No information available.

9.2 Other information

Dynamic viscosity: 67000 - 93000 mPas (25 °C).

SECTION 10: Stability and reactivity

10.1 Reactivity

See SECTION 10.3.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with alkalis (lyes).
Reactions with amines.
Reactions with alcohols.
Reactions with acids.
Reactions with water, with formation of carbon dioxide.

Safety Data Sheet (UK REACH) (GB)
Konstruktionskleber Rapid 620

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10.4 Conditions to avoid

See SECTION 7.2.

10.5 Incompatible materials

Water

10.6 Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

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

Acute oral toxicity

Based on available data, the classification criteria are not met.

Substance
Dibutyltin dilaurate, CAS: 77-58-7
LD50, oral, Rat, 2071 mg/kg (OECD 401) Sarasin. G. 1981
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
LD50, oral, Rat (female), > 5000 mg/kg
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
LD50, oral, Rat, > 2000 mg/kg
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
LD50, oral, Rat, > 10000 mg/kg
Propylene carbonate, CAS: 108-32-7
LD50, oral, Rat, 33520 mg/kg
NOAEL, oral, Rat, 1000 mg/kg (OECD 414)

Acute dermal toxicity

Based on available data, the classification criteria are not met.

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
LD50, dermal, Rabbit, > 9400 mg/kg
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
LD50, dermal, Rabbit, > 9400 mg/kg (OECD 402)
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
LD50, dermal, Rabbit, > 9400 mg/kg
Propylene carbonate, CAS: 108-32-7
LD50, dermal, Rabbit, > 2000 mg/kg

Acute inhalational toxicity

Based on available data, the classification criteria are not met.

Product
ATE-mix, inhalation (vapour), Rat, > 20 mg/L
Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
LC50, inhalative, Rat, 0.49 mg/l/4h
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
LC50, inhalativ (dust), Rat, 0.49 mg/l/4h
LC50, inhalative, Rat, > 2.24 mg/l/1h (OECD 403)
LC50, inhalative, Rat, 0.368 mg/l/4h (OECD 403)
Conversion value, inhalativ (dust), 1.5 mg/l/4h
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
LC50, inhalativ (mist), Rat, 0.49 mg/l/4h

Serious eye damage/irritation

Based on the available information, the classification criteria are fulfilled.
Toxicological data of complete product are not available.
Irritant
Calculation method

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Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
Eye, irritant
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
Eye, irritant
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
Rabbit, OECD 405, irritant
Propylene carbonate, CAS: 108-32-7
Rabbit, in vivo, OECD 405, irritant

Skin corrosion/irritation

Based on the available information, the classification criteria are fulfilled.
 Toxicological data of complete product are not available.
 Irritant
 Calculation method

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
Rabbit, in vivo, OECD 404, irritant
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
Rabbit, in vivo, OECD 404, irritant
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
Rabbit, OECD 404, irritant
Propylene carbonate, CAS: 108-32-7
Rabbit, in vivo, OECD 404, non-irritating

Respiratory or skin sensitisation

Based on the available information, the classification criteria are fulfilled.
 Toxicological data of complete product are not available.
 May cause an allergic skin reaction.
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 Calculation method

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
inhalative, sensitising
dermal, mouse, in vivo (non-LLNA), sensitising
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
inhalative, Rat, in vivo. OECD-GD 39, sensitising
dermal, mouse, in vivo (LLNA), OECD 429, sensitising
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
inhalative, Guinea pig, sensitising
dermal, Guinea pig, OECD 406, sensitising
Propylene carbonate, CAS: 108-32-7
Human, in vivo (non-LLNA), non-sensitizing

Specific target organ toxicity — single exposure

Based on the available information, the classification criteria are fulfilled.
 Toxicological data of complete product are not available.
 May cause respiratory irritation.
 Calculation method

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
inhalative, irritant
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8

inhalative, irritant
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
inhalative, irritant

Specific target organ toxicity — repeated exposure

Based on the available information, the classification criteria are fulfilled.
 Toxicological data of complete product are not available.
 May cause damage to organs through prolonged or repeated exposure through inhalation.
 Calculation method

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
LOAEC, inhalative, Rat, 1 mg/m ³ (chronic), adverse effect observed
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
LOAEC, inhalative, Rat, 1 mg/m ³ , adverse effect observed
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
inhalative, adverse effect observed

Mutagenicity

This product contains one or more substances of Muta. 2.
 Based on available data, the classification criteria are not met.
 Toxicological data of complete product are not available.
 Calculation method

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
Rat, in vivo mammalian somatic cell study, OECD 474, negativ
in vitro gene mutation study in bacteria, OECD 471, negativ
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
inhalative, Rat, in vivo, OECD 474, negativ
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
in vivo, 67/548/EWG. Attachment V. B.13/14., negativ
inhalative, in vivo, 118 mg/m ³ /3Weeks, OECD 474, negativ
Propylene carbonate, CAS: 108-32-7
mouse, in vivo mammalian somatic cell study, OECD 474, negativ
in vitro DANN damage and/or repair study, OECD 482, negativ

Reproduction toxicity

This product contains one or more substances of categorie Repr. 2 (CLP).
 Based on available data, the classification criteria are not met.
 Toxicological data of complete product are not available.
 Calculation method

- Fertility

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
NOAEC, inhalative, Rat, 200 mg/m ³ , no adverse effect observed
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
NOAEC, inhalative, Rat, 200 µg/m ³ (Effect on fertility), no adverse effect observed
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
inhalative, Rat, OECD 414, no adverse effect observed
Propylene carbonate, CAS: 108-32-7
NOAEL, oral, mouse, 10 100 mg/kg bw/d (Effect on fertility), no adverse effect observed
NOAEC, oral, Rat, 1000 mg/kg bw/d (Effect on developmental toxicity), adverse effect observed

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- Development

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
NOAEC, inhalative, Rat, 4 mg/m ³ , no adverse effect observed
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
NOAEC, inhalative, Rat, 4 mg/m ³ (Effect on developmental toxicity), no adverse effect observed
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
inhalative, Rat, OECD 414, no adverse effect observed
Propylene carbonate, CAS: 108-32-7
NOAEL, oral, mouse, 10 100 mg/kg bw/d (Effect on fertility), no adverse effect observed
NOAEC, oral, Rat, 1000 mg/kg bw/d (Effect on developmental toxicity), adverse effect observed

Carcinogenicity

This product contains one or more substances of categorie Carc. 2 (CLP).
 Toxicological data of complete product are not available.
 Suspected of causing cancer.
 Calculation method

Substance
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
NOAEC, inhalative, Rat, 1 mg/m ³ , adverse effect observed
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
NOAEC, Rat, 1 mg/m ³ , adverse effect observed
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
adverse effect observed
Propylene carbonate, CAS: 108-32-7
no adverse effect observed

Aspiration hazard

Does not contain a relevant substance that meets the classification criteria.

General remarks

Toxicological data of complete product are not available.

11.2 Information on other hazards

Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

Other information

none

SECTION 12: Ecological information

12.1 Toxicity

Substance
Dibutyltin dilaurate, CAS: 77-58-7
EC50, Scenedesmus subspicatus, 1 mg/l
EC50, Daphnia magna, 0.463 mg/l
EC50, Brachidanio rerio, 3.1 mg/l
4,4'-Methylenediphenyl diisocyanate, oligomers, CAS: 25686-28-6
LC50, (96h), fish, > 1000 mg/l (OECD 203)
EC50, Bacteria, > 100 mg/l/3h (OECD 209)
EC50, (24h), Daphnia magna, > 1000 mg/l (OECD 202)
EC50, (72h), Algae, > 1640 mg/l (OECD 201)
NOEC, (21d), Daphnia magna, > 10 mg/l (OECD 211)
4,4'-Methylenediphenyl diisocyanate, CAS: 101-68-8
LC50, (96h), Danio rerio, > 1000 mg/l (OECD 203)
ErC50, (72h), Scenedesmus subspicatus, > 1640 mg/l (OECD 201)
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate / methylene diphenyl diisocyanate
LC50, (96h), fish, > 1000 mg/l (OECD 203)
EC50, (24h), Daphnia magna, > 1000 mg/l (OECD 202)
EC50, (3h), Bacteria, > 100 mg/l (OECD 209)
NOEC, (21d), Daphnia magna, > 10 mg/l (OECD 211)
Propylene carbonate, CAS: 108-32-7
LC50, (96h), fish, > 1000 mg/l (EU EC C.1)
EC50, (16h), Bacteria, 25619 mg/l (DIN DIN 38412 Part 8)
EC50, (48h), Daphnia magna, > 1000 mg/l (OECD 202)
NOEC, (72h), Algae, 900 mg/l (OECD 201)
ErC50, (72h), Algae, > 900 mg/l (OECD 201)

12.2 Persistence and degradability

Behaviour in environment compartments	not determined
Behaviour in sewage plant	not determined
Biological degradability	not determined

12.3 Bioaccumulative potential

not determined

12.4 Mobility in soil

not determined

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Endocrine disrupting properties

Contains no ingredients with endocrine-disrupting properties.

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12.7 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment or into the drainage.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Dispose of as hazardous waste.

Waste no. (recommended) 080409*
080501*

Contaminated packaging

Uncontaminated packaging may be taken for recycling.
Dispose full / partially emptied cartridges as hazardous waste in accordance with official regulations.

Waste no. (recommended) 150110* packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number or ID number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

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14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.4 Packing group

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.5 Environmental hazards

Transport by land according to ADR/RID no

Inland navigation (ADN) no

Marine transport in accordance with IMDG no

Air transport in accordance with IATA no

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Maritime transport in bulk according to IMO instruments

not determined

SECTION 15: Regulatory information

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

EEC-REGULATIONS 2008/98/EC 2000/532/EC; 2010/75/EU; 2004/42/EC; (EC) 648/2004; (EC) 1907/2006 (REACH); (EU) 1272/2008; 75/324/EEC ((EC) 2016/2037); (EU) 2020/878; (EU) 2016/131; (EU) 517/2014

TRANSPORT-REGULATIONS ADR (2023); IMDG-Code (2023, 41. Amdt.); IATA-DGR (2023)

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011); UK REACH; GB CLP.

- **Observe employment restrictions for people** Observe employment restrictions for young people.
Observe employment restrictions for mothers-to-be and nursing mothers.

- **VOC (2010/75/CE)** 0 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information**16.1 Hazard statements (SECTION 3)**

H410 Very toxic to aquatic life with long lasting effects.
 H400 Very toxic to aquatic life.
 H372 Causes damage to organs through prolonged or repeated exposure.
 H370 Causes damage to organs.
 H341 Suspected of causing genetic defects.
 H360FD May damage fertility. May damage the unborn child.
 H314 Causes severe skin burns and eye damage.
 H302 Harmful if swallowed.
 EUH204 Contains isocyanates. May produce an allergic reaction.
 H317 May cause an allergic skin reaction.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H315 Causes skin irritation.
 H335 May cause respiratory irritation.
 H319 Causes serious eye irritation.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H332 Harmful if inhaled.
 H351 Suspected of causing cancer.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 ATE = acute toxicity estimate
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 EL50 = Median effective loading
 ELINCS = European List of Notified Chemical Substances
 EmS = Emergency Schedules
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 IVIS = In vitro irritation score
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 LC0 = lethal concentration, 0%
 LOAEL = lowest-observed-adverse-effect level
 LL50 = Median lethal loading
 LQ = Limited Quantities
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 NOAEL = No Observed Adverse Effect Level
 NOEC = No Observed Effect Concentration
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 STP = Sewage Treatment Plant
 TLV@/TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information

Classification procedure

Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)
Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)
Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Calculation method)
STOT SE 3: H335 May cause respiratory irritation. (Calculation method)
Carc. 2: H351 Suspected of causing cancer. (Calculation method)
STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure. (Calculation method)

Modified position

SECTION 2 been added: - - - - -
As from 24 August 2023 adequate training is required before industrial or professional use.
- - - - -
SECTION 9 been added: Dynamic viscosity: [x].
SECTION 11 been added: Contains no ingredients with endocrine-disrupting properties.
SECTION 11 been added: Toxicological data of complete product are not available.



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