

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 1/15

Betochem 2504

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

1.1. Product identifier

Trade name/designation:

Betochem 2504

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

Use of the substance/mixture:

fast foam resin, reacts with water

Relevant identified uses:

Life cycle stage [LCS]

PW: Widespread use by professional workers

C: Consumer use

Sector of uses [SU]

SU 19: Building and construction work

Product Categories [PC]

PC 1: Adhesives, sealants

Process categories [PROC]

PROC 0: Other

Article categories [AC]

AC 0: Other

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Deys Betontechniek Nederland BV

Gelreweg 5

3840AH Harderwijk

Netherlands

Telephone: 0031341415148

E-mail: info@deys.nl

Website: www.deys.nl

E-mail (competent person): info@deys.nl

1.4. Emergency telephone number

24h: 0341 41 51 48 or +31 (0) 30 / 274 88 88

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	Calculation method.
Respiratory or skin sensitisation (<i>Skin Sens. 1</i>)	H317: May cause an allergic skin reaction.	Calculation method.
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	Calculation method.
Acute toxicity (inhalative) (<i>Acute Tox. 4</i>)	H332: Harmful if inhaled.	Calculation method.
Respiratory or skin sensitisation (<i>Resp. Sens. 1</i>)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Calculation method.
STOT-single exposure (<i>STOT SE 3</i>)	H335: May cause respiratory irritation.	Calculation method.
Carcinogenicity (<i>Carc. 2</i>)	H351: Suspected of causing cancer.	Calculation method.
Reproductive toxicity (<i>Lact.</i>)	H362: May cause harm to breast-fed children.	Calculation method.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 2/15

Betochem 2504

Hazard classes and hazard categories	Hazard statements	Classification procedure
STOT-repeated exposure (<i>STOT RE 2</i>)	H373: May cause damage to organs through prolonged or repeated exposure.	Calculation method.
Hazardous to the aquatic environment (<i>Aquatic Acute 1</i>)	H400: Very toxic to aquatic life.	Calculation method.
Hazardous to the aquatic environment (<i>Aquatic Chronic 1</i>)	H410: Very toxic to aquatic life with long lasting effects.	Calculation method.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



GHS07

Exclamation mark



GHS08

Health hazard



GHS09

Environment

Signal word: Danger

Hazard statements for health hazards	
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.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs through prolonged or repeated exposure.
Hazard statements for environmental hazards	
H410	Very toxic to aquatic life with long lasting effects.
Supplemental hazard information	
EUH208	Contains Diphenylmethandiisocyanat, Isomere und Homologe. May produce an allergic reaction.
Precautionary statements Prevention	
P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements Response	
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
Precautionary statements Storage	
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

Adverse human health effects and symptoms:

Risk of skin absorption. Risk of sensitization of respiratory tract and skin. Sensitised persons can react to even very low concentrations and should therefore have no further contact with these materials. Impairment of the lung function.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 3/15

Betochem 2504

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 9016-87-9	Diphenylmethandiisocyanat, Isomere und Homologe Acute Tox. 4 (H332), Carc. 2 (H351), Eye Irrit. 2 (H319), Resp. Sens. 1 (H334), STOT RE 2 (H373), STOT SE 3 (H335), Skin Irrit. 2 (H315), Skin Sens. 1 (H317) Danger	40 - ≤ 67 weight-%
CAS No.: 85535-85-9 EC No.: 287-477-0 Index No.: 602-095-00-X REACH No.: 01-2119519269-33-XXXX	Alkanes, C14-17, chloro <i>Candidate List of Substances of Very High Concern for Authorisation!</i> Aquatic Acute 1 (H400), Aquatic Chronic 1 (H410), Lact. (H362) Warning EUH066	6 - ≤ 11 weight-%
CAS No.: 108-32-7 EC No.: 203-572-1 Index No.: 607-194-00-1 REACH No.: 01-2119537232-48-XXXX	propylene carbonate Eye Irrit. 2 (H319) Warning	1 - ≤ 3 weight-%
CAS No.: 108-94-1 EC No.: 203-631-1 REACH No.: 01-2119453616-35-XXXX	cyclohexanone Acute Tox. 4 (H302, H312, H332), Eye Dam. 1 (H318), Flam. Liq. 3 (H226), Skin Irrit. 2 (H315) Danger	0 - ≤ 0.07 weight-%

Full text of H- and EUH-phrases: see section 16.

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). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician. Get medical advice/attention. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Get immediate medical advice/attention. Get medical advice/attention if you feel unwell.

In case of skin contact:

In case of contact with skin, wash off immediately with plenty of water / polyethylene glycol 400 (Roticlean).

Then wash off with plenty of water and soap. If this is not available, instead:

After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention. Take off immediately all contaminated clothing.

After 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.

Following ingestion:

Rinse mouth. Let water be drunk in little sips (dilution effect). Get medical advice/attention if you feel unwell.

Self-protection of the first aider:

Use personal protection equipment. No direct artificial respiration to be given by first aider. First aider: Pay attention to self-protection!

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 4/15

Betochem 2504

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

Skin corrosion/irritation Allergic reactions Serious eye damage/eye irritation Asthmatic complaints
Respiratory complaints Irritation to respiratory tract

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:

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Combustible. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction. Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Dense smoke is produced when product burns.

Hazardous combustion products:

In case of fire may be liberated: Nitrogen oxides (NOx), Isocyanates, Hydrogen cyanide (hydrocyanic acid), Carbon dioxide, Carbon monoxide.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Cool endangered containers with water spray. Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Remove persons to safety. Keep away unprotected persons. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Special danger of slipping by leaking/spilling product.

Protective equipment:

Wear personal protection equipment (refer to section 8).

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Provide adequate ventilation. Inform respective authorities when entering in waters or the sewerage. If large amounts of spilled material cannot be contained, notify local authorities

6.3. Methods and material for containment and cleaning up

For containment:

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

For cleaning up:

Cover with a moist binding agent (e.g. sand, soil, PUR-dust). Douse with a decontaminating solution and let it act for at least 30 minutes. Mix it well and keep wet with water.

Decontaminating solutions:

A. 90 - 95 % water, 3 - 8 % ammonia conc., 0,2 - 0,5 % liquid detergent (washing up liquid)

or

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 5/15

Betochem 2504

B. 90 - 95 % water, 5 - 10 % soda (sodium carbonate), 0,2 - 0,5 % liquid detergent (washing up liquid)

Collect in a waste container. Do not close the container (CO2 development). Treat with more decontaminating solution, let it act for 1 or 2 days then dispose.

Ventilate affected area. Suitable cleaning solution (flammable!): industrial alcohol (ethanol, isopropanol, butanol) 50 wt.%, water 45 wt.%, ammonia conc. 5 wt.%.

Other information:

Provide adequate ventilation.

6.4. Reference to other sections

Safe handling: see section 7.

Personal protection equipment: see section 8.

Disposal: see section 13

6.5. Additional information

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

Use appropriate container to avoid environmental contamination.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8). Avoid contact during pregnancy/while nursing. Keep container tightly closed. Provide sufficient air exchange and / or exhaust in work rooms. Avoid contact with eyes and skin. Emergency showers should be available in the immediate vicinity. Avoid splashing. Do not leave containers open.

Fire prevent measures:

Avoid spraying or heating above the flash point.

Advices on general occupational hygiene

Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Avoid contact with eyes and skin. Wash hands and face before breaks and after work and take a shower if necessary. Apply skin care products after work. Remove contaminated, saturated clothing immediately.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

Packaging materials:

Refined steel

Requirements for storage rooms and vessels:

Keep container tightly closed and in a well-ventilated place. Protect from direct sunlight. Protect from moisture. Reacts with water forming CO₂; in closed containers, risk of bursting owing to increase of pressure.

Storage class (TRGS 510, Germany): 10 - Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:

Recommended storage temperature: 5 - 30 °C

7.3. Specific end use(s)

Recommendation:

Observe technical data sheet.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 6/15

Betochem 2504

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE)	Diphenylmethandiisocyanat, Isomere und Homologe CAS No.: 9016-87-9	① 0.05 mg/m ³ ② 0.05 mg/m ³ ③ 0.1 mg/m ³ ⑤ (als MDI berechnet), (einatembare Fraktion), kann über die Haut aufgenommen werden DFG, H, Sah, Y, 12
TRGS 900 (DE)	Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	① 0.3 ppm (6 mg/m ³) ② 2.4 ppm (48 mg/m ³) ⑤ (Aerosol und Dampf, einatembare Fraktion, kann über die Haut aufgenommen werden) H, Y, 11, AGS
TRGS 900 (DE)	propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	① 2 ppm (8.5 mg/m ³) ② 2 ppm (8.5 mg/m ³) ⑤ (Aerosol und Dampf) DFG, Y, 11
TRGS 900 (DE)	cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	① 20 ppm (80 mg/m ³) ② 20 ppm (80 mg/m ³) ⑤ (kann über die Haut aufgenommen werden) AGS, EU, H, Y
IOELV (EU)	cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	① 10 ppm (40.8 mg/m ³) ② 20 ppm (81.6 mg/m ³) ⑤ (may be absorbed through the skin)

8.1.2. Biological limit values

No data available

8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	6.7 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	2 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	47.9 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	28.75 mg/kg bw/day	① DNEL Consumer ② Long-term - dermal, systemic effects
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	0.58 mg/kg bw/day	① DNEL Consumer ② Long-term - oral, systemic effects
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	70.53 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 7/15

Betochem 2504

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	17.4 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	20 mg/m ³	① DNEL worker ② Long-term - inhalation, local effects
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	10 mg/m ³	① DNEL Consumer ② Long-term - inhalation, local effects
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	20 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	10 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	10 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	40 mg/m ³	① DNEL worker ② Long-term - inhalation, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	10 mg/m ³	① DNEL Consumer ② Long-term - inhalation, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	80 mg/m ³	① DNEL worker ② Acute - inhalation, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	20 mg/m ³	① DNEL Consumer ② Acute - inhalation, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	40 mg/m ³	① DNEL worker ② Long-term - inhalation, local effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	20 mg/m ³	① DNEL Consumer ② Long-term - inhalation, local effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	80 mg/m ³	① DNEL worker ② Acute - inhalation, local effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	40 mg/m ³	① DNEL Consumer ② Acute - inhalation, local effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	4 mg/kg bw/ day	① DNEL worker ② Long-term - dermal, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	1 mg/kg bw/ day	① DNEL Consumer ② Long-term - dermal, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	4 mg/kg bw/ day	① DNEL worker ② Acute - dermal, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	1 mg/kg bw/ day	① DNEL Consumer ② Acute - dermal, systemic effects
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	1.5 mg/kg bw/ day	① DNEL Consumer ② Long-term - oral, systemic effects

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 8/15

Betochem 2504

Substance name	DNEL value	① DNEL type ② Exposure route
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	1.5 mg/kg bw/ day	① DNEL Consumer ② Acute - oral, systemic effects

Substance name	PNEC Value	① PNEC type
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	1 µg/L	① PNEC aquatic, freshwater
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	0.2 µg/L	① PNEC aquatic, marine water
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	80 mg/L	① PNEC sewage treatment plant
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	13 mg/kg	① PNEC sediment, freshwater
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	2.6 mg/kg	① PNEC sediment, marine water
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0	10 mg/kg	① PNEC secondary poisoning
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	0.9 mg/L	① PNEC aquatic, freshwater
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	0.09 mg/L	① PNEC aquatic, marine water
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	7,400 mg/L	① PNEC sewage treatment plant
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1	9 mg/L	① PNEC aquatic, intermittent release
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	0.0329 mg/L	① PNEC aquatic, freshwater
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	0.00329 mg/L	① PNEC aquatic, marine water
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	10 mg/L	① PNEC sewage treatment plant
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	0.168 mg/kg	① PNEC sediment, freshwater
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	0.0168 mg/kg	① PNEC sediment, marine water
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1	0.329 mg/L	① PNEC aquatic, intermittent release

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 9/15

Betochem 2504

8.2.2. Personal protection equipment



Eye/face protection:

Eye glasses with side protection EN 166

Skin protection:

Tested protective gloves must be worn EN ISO 374

Suitable material:

CR (polychloroprene, chloroprene rubber) (0,5 mm)

NBR (Nitrile rubber) (0,35 mm)

Butyl caoutchouc (butyl rubber) (0,5 mm)

FKM (fluoro rubber) (0,4 mm)

PVC (polyvinyl chloride) (0,5 mm)

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. Check leak tightness/ impermeability prior to use. Protective gloves shall be replaced immediately when physically damaged or worn.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Breakthrough times and swelling properties of the material must be taken into consideration.

Respiratory protection:

Respiratory protection necessary at: exceeding exposure limit values, Accidental release

Combination filter A-P2.

8.2.3. Environmental exposure controls

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: dark brown

Odour: not determined

Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	<i>not applicable</i>		② Reacts with water with the evolution of carbon dioxide and foaming.
Melting point	> -10 °C		
Freezing point	<i>not determined</i>		
Initial boiling point and boiling range	> 200 °C		
Decomposition temperature	> 230 °C		
Flash point	> 200 °C		
Evaporation rate	<i>not determined</i>		
Auto-ignition temperature	<i>not determined</i>		
Upper/lower flammability or explosive limits	<i>not determined</i>		
Vapour pressure	<i>not determined</i>		
Vapour density	<i>not determined</i>		
Density	1.1 - 1.15 g/mL	20 °C	
Relative density	<i>not determined</i>		
Bulk density	<i>not determined</i>		

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 10/15

Betochem 2504

Parameter	Value	at °C	① Method ② Remark
Water solubility	<i>not applicable</i>		② Reacts with water with the evolution of carbon dioxide and foaming.
Partition coefficient: n-octanol/water	<i>not determined</i>		
Dynamic viscosity	80 - 150 mPa* s	20 °C	
Kinematic viscosity	<i>not determined</i>		

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Vapours are heavier than air. Formation of explosive atmospheres possible when heated above the flash point and/or during spraying.

10.2. Chemical stability

Stable under recommended storage and handling conditions.

10.3. Possibility of hazardous reactions

Exothermic reaction with: Water, Acids, Alkalis, primary and secondary amines, Ammonia (NH₃), sodium hydroxide.

The reaction results in formation of carbon dioxide: Danger of bursting due pressure build-up in closed containers.

Violent polymerisation may be caused by: High temperatures. tertiary amines, organotin compounds.

10.4. Conditions to avoid

Avoid spraying or heating above the flash point.

10.5. Incompatible materials

Copper, Copper alloys, zinc, non-ferrous metals.

10.6. Hazardous decomposition products

Heating or fire can release toxic gas. Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

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

Diphenylmethandiisocyanat, Isomere und Homologe CAS No.: 9016-87-9
LD₅₀ oral: >10,000 mg/kg (Rat - male)
LD₅₀ dermal: >9,400 mg/kg (Rabbit - male, female)
LC₅₀ Acute inhalation toxicity (dust/mist): =0.49 mg/L 4 h (Rat)
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0
LD₅₀ oral: >4,000 mg/kg (Rat)
LD₅₀ dermal: 2,800 mg/kg (Rabbit)
LC₅₀ Acute inhalation toxicity (vapour): >48.17 mg/L 1 h (Rat)
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1
LD₅₀ oral: 33,520 mg/kg (Rat - male, female)
LD₅₀ dermal: >2,000 mg/kg (Rabbit - male, female) OECD 402
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1
LD₅₀ oral: 1,530 mg/kg (Ratte)
LD₅₀ dermal: 947 mg/kg (Kaninchen)
LC₅₀ Acute inhalation toxicity (vapour): 6.2 mg/L 4 h (Ratte)

Acute oral toxicity:

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 11/15

Betochem 2504

Acute dermal toxicity:

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

Acute inhalation toxicity:

Harmful if inhaled.

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. Contains Diphenylmethandiisocyanat, Isomere und Homologe. May produce an allergic reaction.

Germ cell mutagenicity:

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

Carcinogenicity:

Suspected of causing cancer.

Reproductive toxicity:

May cause harm to breast-fed children.

STOT-single exposure:

May cause respiratory irritation.

STOT-repeated exposure:

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard:

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

Additional information:

No data available

11.2. Information on other hazards

No data available

SECTION 12: Ecological information

12.1. Toxicity

Diphenylmethandiisocyanat, Isomere und Homologe CAS No.: 9016-87-9
EC ₅₀ : >1,000 mg/L (crustaceans, Daphnie) OECD 202, 24 h
LC ₅₀ : >1,000 mg/L 4 d (fish) OECD 203
EC ₅₀ : >1,640 mg/L 3 d (Algae/water plant) OECD 201
NOEC: >10 mg/L 21 d (crustaceans, Daphnia magna (Big water flea)) OECD 211
Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0
EC ₅₀ : ≥3.2 mg/L 4 d (Algae/water plant, Selenastrum capricornutum)
NOEC: 0.01 mg/L 21 d (crustaceans, Daphnia magna (Big water flea))
EC ₅₀ : 0.0077 mg/L 2 d (crustaceans, Daphnia magna (Big water flea))
LC ₅₀ : 5,000 - 10,000 mg/L 4 d (fish, Alburnus alburnus (alburnum))
propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1
EC ₅₀ : >1,000 mg/L 2 d (crustaceans, Daphnia magna (Big water flea)) OECD 202
EC ₅₀ : >900 mg/L 3 d (Algae/water plant, Scenedesmus subspicatus) OECD 201
LC ₅₀ : >1,000 mg/L 4 d (fish, Cyprinus carpio (Common Carp))
cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1
LC ₅₀ : 527 - 732 mg/L 4 d (fish, Fisch)

Aquatic toxicity:

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

12.2. Persistence and degradability

Diphenylmethandiisocyanat, Isomere und Homologe CAS No.: 9016-87-9
Biodegradation: Yes, slowly

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 12/15

Betochem 2504

Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0

Biodegradation: Yes, slowly

propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1

Biodegradation: Yes, rapidly

12.3. Bioaccumulative potential

propylene carbonate CAS No.: 108-32-7 EC No.: 203-572-1

Log K_{OW}: -0.41

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

Diphenylmethandiisocyanat, Isomere und Homologe CAS No.: 9016-87-9

Results of PBT and vPvB assessment: —

Alkanes, C14-17, chloro CAS No.: 85535-85-9 EC No.: 287-477-0

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

cyclohexanone CAS No.: 108-94-1 EC No.: 203-631-1

Results of PBT and vPvB assessment: —

12.6. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste according to applicable legislation.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

08 05 01 *	Waste isocyanates
------------	-------------------

*: Evidence for disposal must be provided.

Remark:

Unhardened product residues are special waste.

Cured product residues are no hazardous waste.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. The waste code numbers mentioned are recommendations based on the probable use of the product. Due to specific use and disposal circumstances at the user other waste codes may be suitable.

Waste code packaging

15 01 10 *	packaging containing residues of or contaminated by dangerous substances
------------	--------------------------------------------------------------------------

*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:

Consult the appropriate local waste disposal expert about waste disposal.

Decontaminate product residues in completely empty containers with a decontaminating solution (see section 6.3 Methods and material for containment and cleaning up).

13.2. Additional information

Do not allow to enter into surface water or drains.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023







Version: 1



Page 13/15

Betochem 2504

SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft (ADN)	Sea transport (IMDG)
14.1. UN number or ID number		
UN 3082	UN 3082	UN 3082
14.2. UN proper shipping name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkanes, C10-13, chloro)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkanes, C10-13, chloro)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alkanes, C10-13, chloro)
14.3. Transport hazard class(es)		
		
14.4. Packing group		
III	III	III
14.5. Environmental hazards		
		 MARINE POLLUTANT
14.6. Special precautions for user		
Hazard identification number (Kemler No.): 90 Classification code: M6 Tunnel restriction code: (E)	No data available	No data available

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

This product contains only components that are either pre-registered, already registered, exempted from registration, considered registered or not subject to registration under Regulation (EC) No. 1907/2006 (REACH)., Polymer are exempt from REACH registration , All relevant raw materials and additives have either been pre-registered, registered or exempted from registration under Regulation (EC) No 1907/2006 (REACH)., The REACH registration status information mentioned above has been provided to the best of our knowledge and belief and to the abovementioned Timing of publication considered correct. However, no warranty, express or implied, may be given. It is the responsibility of the buyer or user to ensure that his / her knowledge of the prescription status is correct.

15.1.2. National regulations

[DE] National regulations

Restrictions of occupation

22 JArbSchG. 4 MuSchRiV. 5 MuSchRiV.

Annex Chemikalien-Verbotsverordnung (ChemVerbotsV)

subject to the German Chemikalien-Verbotsverordnung (ChemVV).

Water hazard class

WGK:

2 - deutlich wassergefährdend

Technische Regeln für Gefahrstoffe

TRGS 430

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 14/15

Betochem 2504

TRGS 500
TRGS 510
TRGS 900
TRGS 903
TRGS 905

Berufsgenossenschaftliche Vorschriften (DGUV-Vorschriften)

Berufsgenossenschaftliche Regeln (BGR) 190
Berufsgenossenschaftliche Informationen (BGI) 524, 595.

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

For abbreviations and acronyms, see table on the eSDScom website

16.3. Key literature references and sources for data

Safety data sheets of raw material suppliers.

BAM: Datenbank GEFAHRGUT der Bundesanstalt für Materialforschung und -prüfung

eChemPortal: The Global Portal to Information on Chemical Substances

GESTIS: Stoffdatenbank des Instituts für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA)

GisBAU: Gefahrstoffinformationssystem der Berufsgenossenschaft Bau

GisChem: Gefahrstoffinformationssystem der Berufsgenossenschaft Chemie

GSBL: Gemeinsamer Stoffdatenpool Bund / Länder

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Skin corrosion/irritation (<i>Skin Irrit. 2</i>)	H315: Causes skin irritation.	Calculation method.
Respiratory or skin sensitisation (<i>Skin Sens. 1</i>)	H317: May cause an allergic skin reaction.	Calculation method.
Serious eye damage/eye irritation (<i>Eye Irrit. 2</i>)	H319: Causes serious eye irritation.	Calculation method.
Acute toxicity (inhalative) (<i>Acute Tox. 4</i>)	H332: Harmful if inhaled.	Calculation method.
Respiratory or skin sensitisation (<i>Resp. Sens. 1</i>)	H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.	Calculation method.
STOT-single exposure (<i>STOT SE 3</i>)	H335: May cause respiratory irritation.	Calculation method.
Carcinogenicity (<i>Carc. 2</i>)	H351: Suspected of causing cancer.	Calculation method.
Reproductive toxicity (<i>Lact.</i>)	H362: May cause harm to breast-fed children.	Calculation method.
STOT-repeated exposure (<i>STOT RE 2</i>)	H373: May cause damage to organs through prolonged or repeated exposure.	Calculation method.
Hazardous to the aquatic environment (<i>Aquatic Acute 1</i>)	H400: Very toxic to aquatic life.	Calculation method.
Hazardous to the aquatic environment (<i>Aquatic Chronic 1</i>)	H410: Very toxic to aquatic life with long lasting effects.	Calculation method.

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 26 Nov 2020

Print date: 3 Jul 2023

Version: 1



Page 15/15

Betochem 2504

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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.
H362	May cause harm to breast-fed children.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Supplemental hazard information

EUH066	Repeated exposure may cause skin dryness or cracking.
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16.6. Training advice

No data available

16.7. Additional 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.