

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 11.09.2020

Version number 4

Revision: 20.07.2020

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

- 1.1 Product identifier

- Trade name: **Körapur 140 grau**

- Article number: R012148-00

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

- **Application of the substance / the mixture** Adhesives

- 1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier:

Kömmerling Chemische Fabrik GmbH
Zweibrücker Straße 200
D-66954 Pirmasens
Tel.: +49 (0)6331/56-2000
www.koe-chemie.de

- Informing department:

Abteilung: EU Regulatory Engineering Adhesives
(department: EU Regulatory Engineering Adhesives)
E-Mail: Productsafety@Koe-Chemie.de

- 1.4 Emergency telephone number:

In case of poisoning:
GBK-EMTEL International
Tel.(24h): +49(0)6132/84463 (all languages)

In case of transport accidents:

Tel.(24h): (001) 352 323 3500 (Infotrac - Contract ID: 90373 / GBK)

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture

- **Classification according to Regulation (EC) No 1272/2008**

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

- 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**



GHS08

- **Signal word** Danger

- **Hazard-determining components of labelling:**

methylenediphenyl diisocyanate, isomeres and homologues

- **Hazard statements**

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

- **Precautionary statements**

P261 Avoid breathing mist/vapours/spray.

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P280 Wear protective gloves.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

- Additional information:

EUH204 Contains isocyanates. May produce an allergic reaction.

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- **PBT:** Not applicable.- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- 3.2 Chemical characterisation: Mixtures
- **Description:** Mixture of several substances
- Dangerous components:

EC number: 905-588-0 Reg.nr.: 01-2119488216-32-xxxx 01-2119486136-34-xxxx	reaction mass of ethylbenzene and xylene Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	<10%
CAS: 28553-12-0 EINECS: 249-079-5 Reg.nr.: 01-2119430798-28-xxxx	diisononyl phthalate substance with a workplace exposure limit	<10%
CAS: 101-68-8 EINECS: 202-966-0 Reg.nr.: 01-2119457014-47-xxxx	diphenylmethane-4,4'-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	<0.5%
CAS: 25686-28-6 NLP: 500-040-3 Reg.nr.: 01-2119457013-49-xxxx	4.4-Methylene diphenyl diisocyanate, oligomers 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	<0.2%
CAS: 4083-64-1 EINECS: 223-810-8 Reg.nr.: 01-2119980050-47-xxxx	p-toluenesulphonyl isocyanate Resp. Sens. 1, H334; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	<0.1%

- **SVHC** Doesn't contain SVHC-substances.
- Additional information

EC number 905-588-0: Outside Europe, this substance is allocated CAS: 1330-20-7 (mixture of xylene isomers > 80 %) and CAS: 100-41-4 (ethylbenzene < 20 %)

For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- After inhalation

In case of unconsciousness bring patient into a stable side position for transport.

Supply fresh air; consult doctor in case of complaints.

Even minimal concentrations of isocyanate can lead to a reaction in sensitised people. Symptoms that may occur include the following: irritation of the eyes, nose, throat and lungs, possibly together with a dry throat, a feeling of chest tightness and breathing difficulties. The symptoms may only arise several hours after exposure.

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- After skin contact

Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.

The skin is irritated. Sensitisation may occur through skin contact. Animal research has shown that skin contact with substances known to have a sensitising effect on airways, such as diisocyanate, can cause airways to be sensitised. Therefore, when carrying out activities where (un)intentional skin contact with isocyanates may occur (e.g. during maintenance work, or when opening a barrel), wear long-sleeved protective clothing and gloves.

- After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.**- After swallowing** Do not induce vomiting; call for medical help immediately.**- 4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

- 4.3 Indication of any immediate medical attention and special treatment needed

In instances of existing sensitisation towards isocyanates, a doctor should be consulted with regards to work-related contact with other sensitising substances, or substances which irritate the airway. Treatment for exposure should be geared towards monitoring symptoms and the patient's clinical condition. It must be ensured that the patient has sufficient ventilation and oxygen supply. Isocyanates can cause sensitisation of the airways, or asthma-like symptoms (bronchospasms). Delayed breathing symptoms, including lung oedema, may occur. People who have shown signs of breathlessness after considerable exposure should remain under observation for 24-48 hours.

SECTION 5: Firefighting measures**- 5.1 Extinguishing media****- Suitable extinguishing agents**

Water spray

Alcohol-resistant foam

Fire-extinguishing powder

Carbon dioxide

- For safety reasons unsuitable extinguishing agents Water with full jet.**- 5.2 Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

- 5.3 Advice for firefighters**- Protective equipment:** Wear self-contained respiratory protective device.**SECTION 6: Accidental release measures****- 6.1 Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.**- 6.3 Methods and material for containment and cleaning up:** Pick up mechanically.**- 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** Ensure good ventilation/exhaustion at the workplace.

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- Information about protection against explosions and fires:

The product contains small quantities of organic solvents. The possibility of an ignitable vapour / air mixture forming is very slight but, under certain local conditions, this should not be overlooked
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: Prevent any seepage into the ground.

- Information about storage in one common storage facility: Store away from foodstuffs.

- Further information about storage conditions:

Protect from frost.

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

Store receptacle in a well ventilated area.

Store in dry conditions.

- Storage class (according german VCI-concept): 13

- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection
- Additional information about design of technical systems: No further data; see item 7.

- 8.1 Control parameters
- Components with limit values that require monitoring at the workplace:
CAS: 28553-12-0 diisononyl phthalate

WEL (Great Britain)	Long-term value: 5 mg/m ³
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CAS: 101-68-8 diphenylmethane-4,4'-diisocyanate

WEL (Great Britain)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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CAS: 4083-64-1 p-toluenesulphonyl isocyanate

WEL (Great Britain)	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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- DNELs
reaction mass of ethylbenzene and xylene

Inhalative	worker (long-term exposure/systemic)	289 mg/m ³
	worker (long-term exposure/local)	289 mg/m ³

CAS: 101-68-8 diphenylmethane-4,4'-diisocyanate

Inhalative	worker (long-term exposure/systemic)	0.05 mg/m ³
	worker (long-term exposure/local)	0.05 mg/m ³

CAS: 25686-28-6 4,4'-Methylene diphenyl diisocyanate, oligomers

Inhalative	worker (long-term exposure/systemic)	0.05 mg/m ³
	worker (long-term exposure/local)	0.05 mg/m ³

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- Ingredients with biological limit values:**CAS: 101-68-8 diphenylmethane-4,4'-diisocyanate**

BMGV (Great Britain)	1 µmol creatinine/mol Medium: urine Sampling time: At the end of the period of exposure Parameter: isocyanate-derived diamine
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- Additional information:

The homogenous mixing of this product is safeguarded by continual physical testing. Raw materials which formerly had dust-like properties are completely incorporated into the liquid / paste-like mass. Subsequently, possible TLVs for solid substances are not given, as there is no more danger of inhaling these substances (when dealing with this mixture)!

- 8.2 Exposure controls**- Personal protective equipment****- General protective and hygienic measures**

The usual precautionary measures should be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of the work.
Immediately remove all soiled and contaminated clothing

- Breathing equipment:

Not required with good ventilation and/or adequate extractor facilities
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Short term filter device:
A2 (DIN EN 14387 / DIN EN 141)

- Protection of hands (DIN EN 420):

Direct contact with the chemical preparation must be avoided by organizational measures. Apply skin protectant before working with gloves to avoid skin swellings and use a skin cleansing and skincare product after the work.
Compliance with the stated penetration time (starts with the first product contact) must be ensured!
The gloves need to be disposed of after the penetration time and new gloves used!

- For the permanent contact gloves made of the following materials are suitable:

If longer exposure to the chemical preparation is necessary, a sturdy overglove against mechanical strain is recommended in combination with the "Barrier 02-100" underglove from Ansell (penetration time 480 min).

- For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Fluorinated rubber (Viton) [0.7mm - penetration time 15 min]

- As protection from splashes gloves made of the following materials are suitable:

Recommended for protection from splashes: disposable nitrile gloves (minimum thickness 0.12 mm) with long cuffs. After contact with the chemical preparation, take the disposable nitrile glove off immediately and put on a new disposable nitrile glove.

- Eye protection: Safety glasses

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SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form: Pasty
Penetrometer test according ADR 2.3.4.3
Test result: solid (penetration after 5s < 15mm)

Colour: Grey

- **Odour:** Solvent-like

- **Odour threshold:** Not determined.

- Change in condition

Initial boiling point and boiling range: Not applicable

- **Flash point:** Not applicable

- **Ignition temperature:** > 200 °C

- Explosion limits:

Lower: 0.6 Vol %

Upper: 7.8 Vol %

- **Vapour pressure at 20 °C:** < 100 hPa

- **Specific gravity at 20 °C:** 1.17 g/cm³

- **Vapour density:** Not determined.

- **Evaporation rate:** Not determined.

- Solubility in / Miscibility with

Water: Insoluble
reacts with water

- **Partition coefficient: n-octanol/water:** Not determined.

- Solvent content:

Organic solvents: 7.5 %

VOC (EU): 87.9 g/l

VOC (EU): 7.51 %

VOC (CH): 7.51 %

- 9.2 Other information

Burning test according 33.2.1.4 "Manual of Test and Criteria" (Recommendations on the TRANSPORT OF DANGEROUS GOODS [United Nations]):
Burning rate: ≤ 2,2mm/s (Not a dangerous good according class 4.1 [ADR])

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.

- **10.2 Chemical stability**

- **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

- **10.3 Possibility of hazardous reactions**

Reacts with alcohols, amines, aqueous acids and alkalis.

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Reacts with water forming carbon dioxide. In closed containers there is a danger of bursting, due to build up of pressure.

- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**

In case of fire, the following substance(s) may occur:

Hydrogen chloride (HCl)

Sulphur oxides (SO_x)

Nitrogen oxides

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects

- **Acute toxicity** Based on available data, the classification criteria are not met.

- LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimates)

Dermal	LD50	14,647 mg/kg
Inhalative	LC50/4 h	146 mg/l

reaction mass of ethylbenzene and xylene

Oral	LD50	3,523 mg/kg (rat)
Dermal	LD50	1,100 mg/kg (ATE)
Inhalative	LC50/4 h	11 mg/l (ATE)

CAS: 101-68-8 diphenylmethane-4,4'-diisocyanate

Inhalative	LC50/4 h	1.5 mg/l (ATE)
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CAS: 25686-28-6 4,4'-Methylene diphenyl diisocyanate, oligomers

Inhalative	LC50/4 h	1.5 mg/l (ATE)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Prolonged or repeated contact with the skin may cause skin irritation
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **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.

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- **Additional ecological information:**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal in accordance with official regulations
- **EWC-Code(s):**

To be treated as industrial waste: do not dispose of in or on soil, in watercourses or bodies, or through a sewage system. These EU refuse code numbers are recommendations for waste accruing through the use of adhesives and sealants. Any waste produced from organic solvents or other dangerous substances (according GHS) listed under item 3 of this safety datasheet is itself classified as dangerous (*).

Waste accruing during application:

080409* waste adhesives and sealants containing organic solvents or other dangerous substances
080410 waste adhesives and sealants other than those mentioned in 080409

Waste accruing during cleaning:

08 04 11* adhesive and sealant sludges containing organic solvents or other dangerous substances
08 04 12 adhesive and sealant sludges other than those mentioned in 080411

Soiled waste packaging:

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

Clean waste packaging:

15 01 01 paper and cardboard packaging
15 01 02 plastic packaging
15 01 04 metallic packaging

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- | | |
|--|------|
| - 14.1 UN-Number | |
| - ADR/RID/ADN, ADN, IMDG, IATA | Void |
| - 14.2 UN proper shipping name | |
| - ADR/RID/ADN, ADN, IMDG, IATA | Void |
| - 14.3 Transport hazard class(es) | |
| - ADR/RID/ADN, ADN, IMDG, IATA | |
| - Class | Void |

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- 14.4 Packing group - ADR/RID/ADN, IMDG, IATA	Void
- 14.5 Environmental hazards: - Marine pollutant:	No
- 14.6 Special precautions for user	Not applicable.
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
- Transport/Additional information:	Protect from moisture
- UN "Model Regulation":	Void

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 52a, 56a
- **National regulations**
- **Information about limitation of use:**
Employment restrictions concerning young persons must be observed.
- **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.

For industrial use only.

- **Legend of H- and R-phrases, concerning the in chapter 3 mentioned substances (marking of product please see chapter 2)**
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to the hearing organs through prolonged or repeated exposure.
- **Department issuing SDS:**
Abteilung: EU Regulatory Engineering Adhesives
(department: EU Regulatory Engineering Adhesives)
- **Abbreviations and acronyms:**
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

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ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport 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)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity - dermal – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

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

Asp. Tox. 1: Aspiration hazard – Category 1

- * Data compared to the previous version altered.

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