

## 1 Identification of the substance/preparation and of the company/undertaking

- **Product details**
- **Trade name:** 4CR 5120 1K PU-Scheibenkleber
- **Application of the substance / the preparation** Adhesives
- **Manufacturer/Supplier:**  
4CR Vertriebsgesellschaft mbH  
Donaustraße 2  
94469 Deggendorf  
Tel.: +49 (0) 4841/665015  
Fax: +49 (0) 4841/665016  
e-Mail: 4cr@b2bmail.eu
- **Information in case of emergency:** +49(0)700 24112112 (MIP)

## 2 Hazards identification

- **Hazard description:**



Xn Harmful

- **Information concerning particular hazards for human and environment:**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
R 42 May cause sensitisation by inhalation.  
Contains isocyanates. See information supplied by the manufacturer
- **Classification system:**  
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

## 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 28553-12-0 EINECS: 249-079-5	di-"isononyl" phthalate		10-25%
CAS: 101-68-8 EINECS: 202-966-0	4,4'-methylenediphenyl diisocyanate	☒ Xn, ☒ Xi; R 20-36/37/38-42/43	≤ 2.5%
CAS: 26447-40-5 EINECS: 247-714-0	methylenediphenyl diisocyanate	☒ Xn, ☒ Xi; R 20-36/37/38-42/43	≤ 2.5%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

- **General information:** In case of irregular breathing or respiratory arrest provide artificial respiration.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.

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### 5 Fire-fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards caused by the substance, its products of combustion or resulting gases:**  
In case of fire, the following can be released:  
Nitrogen oxides (NO<sub>x</sub>)  
Carbon monoxide (CO)  
Hydrogen cyanide (HCN)
- **Protective equipment:** Mouth respiratory protective device.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
  - **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
  - **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Contain and collect spillages with non-combustible absorbent materials (e.g. sand, earth, diatomaceous earth) and place in a suitable container.  
Decontaminate immediately with suitable mixture (flammable):
    - as such usable (inflammatory!):
 

water	45 Vol.%
ethanol or isopropanol	50 Vol.%
ammonia solution (Density= 0.88)	5 Vol.%
    - alternatively (non-flammable):
 

sodium carbonate	5 Vol.%
water	95 Vol.%
- Add the same decontaminant to any residues and allow to stand for several days in an non-sealed container until no further reaction occurs. Once this stage is reached, close the container and dispose of in accordance with the waste regulations (see Section 13).

### \* 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
Ensure good ventilation/exhaustion at the workplace.  
Persons with a history of asthma, allergies or chronic or recurrent respiratory diseases should only be employed in processes in which this product is used under appropriate medical supervision.
- **Information about fire - and explosion protection:** No special measures required.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**  
Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.  
Store away from foodstuffs.
- **Further information about storage conditions:**  
Protect from frost.  
Store separately from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohol and water.
- **Storage class:** 10

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### 8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **Ingredients with limit values that require monitoring at the workplace:**

**28553-12-0 di-"isononyl" phthalate**

WEL () Long-term value: 5 mg/m<sup>3</sup>

**101-68-8 4,4'-methylenediphenyl diisocyanate**

WEL () Short-term value: 0.07 mg/m<sup>3</sup>  
Long-term value: 0.02 mg/m<sup>3</sup>  
Sen; as -NCO

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

· **Personal protective equipment:**

All personal protective equipment, including respiratory protective equipment, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH Regulations.

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

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

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Goggles recommended during refilling

### 9 Physical and chemical properties

· **General Information**

**Form:** Fluid  
**Colour:** According to product specification  
**Odour:** Characteristic

· **Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 100°C

· **Flash point:** Not applicable.

· **Ignition temperature:** 420°C (DIN 51794)

· **Self-igniting:** Product is not selfigniting.

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· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	0.1 Vol %
<b>Upper:</b>	0.2 Vol %
· <b>Vapour pressure at 20°C:</b>	23 hPa
· <b>Density at 20°C:</b>	1.36 g/cm <sup>3</sup> (DIN 53217)
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	43.7 %
<b>VOC (EC)</b>	g/l
· <b>Solids content (weight-%):</b>	56.3 %

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous decomposition products:**  
Possible in traces.  
Nitrogen oxides  
Hydrogen chloride (HCl)  
Hydrogen cyanide (prussic acid)  
Carbon monoxide  
Nitrogen oxides (NO<sub>x</sub>)

### 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

**101-68-8 4,4'-methylenediphenyl diisocyanate**

Oral LD50 | 2200 mg/kg (mouse)

- **Primary irritant effect:**

- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.

- **Sensitization:** Sensitization possible through inhalation.

- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Harmful

- **Sensitisation** May cause sensitisation by inhalation.

### 12 Ecological information

- **General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

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Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

### 15 Regulatory information

- **Labelling according to EU guidelines:**  
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:**  
Xn Harmful
- **Hazard-determining components of labelling:**  
4,4'-methylenediphenyl diisocyanate  
methylenediphenyl diisocyanate
- **Risk phrases:**  
42 May cause sensitisation by inhalation.
- **Safety phrases:**  
2 Keep out of the reach of children.  
13 Keep away from food, drink and animal feedingstuffs.  
23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).  
36 Wear suitable protective clothing.  
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).  
63 In case of accident by inhalation: remove casualty to fresh air and keep at rest.
- **Special labelling of certain preparations:**  
Contains isocyanates. See information supplied by the manufacturer

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· **National regulations:**

· **Information about limitation of use:**

101-68-8	4,4'-methylenediphenyl diisocyanate	4
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Class	Share in %
I	≤ 2,5

### 16 Other information

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

· **Relevant R-phrases**

20 Harmful by inhalation.

36/37/38 Irritating to eyes, respiratory system and skin.

42/43 May cause sensitisation by inhalation and skin contact.

· **Department issuing MSDS:** Laboratory

· **Contact:** Ingo Bolls

· **\* Data compared to the previous version altered.**

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