1. Identification of the substance/mixture and of the company/ undertaking

**Crack and Surface Repair HCR 188 TYP : A - RESIN**
(Use: Row material, for industrial use only)

**Purpose:** Polyl mixture for the preparation of polyurethanes

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Telefon 0049/2294/993818 - 0
Telefax 0049/2294/993818-30

Further information obtainable from: mail@ilgner-schleif-innovationen.com
Information in case of emergency: Tel.: 0049/30/19240

2. Hazards Identification

Possible Hazards (according to Directive 67/548/EWG or 1999/45/EC)
No particular hazards known

3. Composition/Information on Ingredients

Chemical characterization (preparation):
Polyl mixture of polyether polyol, aggregates and additives

**Reference:** The wording of the listed risk phrases refer to section 16

<table>
<thead>
<tr>
<th>CAS</th>
<th>EINECS</th>
<th>Designation</th>
<th>Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>101-68-8</td>
<td>202-966-0</td>
<td>Diphenymethan-4,4’-diisocyanat</td>
<td>≥ 6 %</td>
</tr>
</tbody>
</table>

4. First – Aid Measures

**General advice**
No special measures required.

**after inhalation:**
Move person freshening air, keep warm and let rest;
required medical attention for respiratory complaints.

**After skin contact:**
Clean in contact with the skin with plenty of warm water and soap.
In reaction of the skin contact direkt the doctor

**After eye contact:**
Wash out the eyes with open eyelids (at least 10 minutes)
if possible with warm water.

**After swallow:**
Do not induce vomiting, medical help needed

**Special Note:**
no
5. Fire fighting measures

Extinguishing Media: Carbon dioxide (CO²), extinguishing powder
For safety reasons unsuitable extinguishing agents: Full water jet
Specific hazards: Soil, groundwater or surface water can penetrate

6. Accidental release measures

Environmental protection measures: Do not allow the entry in ground water, surface water or sanitary sewer system.
Measures: for clean up
Where possible mechanically remove residue with liquid-binding material (e.g. sawdust, chemical binder, sand).
See also Disposal instructions in Chapter 16.

7. Handling and Storage

Handling:
Information for safe handling:
Carefully open the container and handle. Ensure adequate / bleeding. Keep unauthorized persons away. Avoid contact with spilled material. Avoid breathing vapor, mist, spray. Inside a closed room, well ventilated.
Storage:
Keep container tightly closed and dry. For more information on the storage conditions which must be followed for quality assurance, please refer to our technical data sheet.
Storage temperature for reasons of personal safety: 50 °C
VCI storage class: -

8. Limiting exposure controls / personal protection equipment

Safety - Threshold Limit Values TRGS 900 (MAK value):

No limits set
Respiratory protection: required in insufficiently ventilated working areas. When spraying Fresh-air mask or (short term) use a combination filter A2-P2.
Hand protection:
- Wear protective gloves
- Suitable materials for protective gloves, DIN EN 374-3:
  - Nitrillkautschuk - NBR:
  - Polyvinyl chloride - PVC:
- Recommendation: Dispose of contaminated gloves.
Eye protection:
- Eye / face protection
- Skin protection: Wear suitable protective clothing.
- Protective and hygienic measures: Keep away from food and beverages. Wash hands before breaks and after work. Work clothes separately. Remove contaminated clothing immediately. Contaminated protective clothing decontamination, dispose of and destroy (see Chapter 13).
9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Whitish-yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Faint odor</td>
</tr>
<tr>
<td>Melting point</td>
<td>n.g.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>n.g.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>175 °C</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>&gt; 450 °C</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>0.4 Vol%</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td>4.7 Vol%</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>n.g.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.03 g/cc [20 °C]</td>
</tr>
<tr>
<td>Viscosity</td>
<td>250 mPas ~</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>partially soluble</td>
</tr>
<tr>
<td>pH</td>
<td>n.g.</td>
</tr>
<tr>
<td>Solubility in org. Solvents</td>
<td>soluble</td>
</tr>
</tbody>
</table>

For more information: - ------

10. Stability and reactivity

Thermal decomposition:
Above 200 ° C thermal decomposition takes place.

Dangerous reactions:
Exothermic reaction with isocyanates, oxidizers.

Hazardous Decomposition Products:
No hazardous decomposition products when stored and handled.

11. Toxicological information

Acute toxicity:
oral:
LD50 for rats is > 2,000 mg / kg (estimated)

inhalation:
LC50 for rats is greater than near-saturated vapor concentration (4h)

Primary irritation
-on the skin: Slightly irritating
-on the eye: Slightly irritating
-after inhalation: no data available

Sensitization: no data available

Additional toxicological information:
As with the use of all chemicals known to date can not not Toxicological properties especially with repeated exposure can be excluded
Irritation
Assessment of irritating effects:
When applying the product with the skin by drying, irritation is possible.
Not irritating to the eyes. Not irritating to the skin. The product was not tested.
The statement has been derived from products of similar composition.
Experimental / calculated data:
Skin corrosion / irritation rabbit: non-irritant. (OECD Guideline 404)
Serious eye damage / eye irritation rabbit Non irritating. (OECD Guideline 405)

Assessment of sensitization:
Effects were not observed in animal studies. The product was not tested. the statement
was derived from products of similar composition.

Germ cell mutagenicity
Assessment of mutagenicity:
The substance was not mutagenic in bacteria. The product was not
tested. The statement has been derived from products of similar composition.

Carcinogenicity
Assessment of carcinogenicity:
On the carcinogenicity data are not available.

Reproductive toxicity
Assessment of reproduction toxicity:
For fertility-impairing effect no data are available.

Developmental Toxicity
Assessment of teratogenicity:
For teratogenic effects No data is available.

Further information on the toxicity
When handled and used properly, the product after
our experience and information provided to us. The statement is
derived from products of similar composition.

12. Ecological information

General notes:
Entering surface waters, waste water or soil.

Ecotoxicity: easily biodegradable
Acute fish toxicity: LC 50 ≥ 200 mg / l (estimated)
Acute Toxicity to bacteria: EC 50 ≥ 100 mg / l (estimated)
Acute Toxicity to daphnia: EC50> 100 mg / l (estimated)
Aquatic plants:
EC50 (72 h) > 100 mg/L, Scenedesmus subspicatus (OECD Guideline 201)
Nominal concentration. Microorganisms / Effect on activated sludge:
EC20 (0.5 h) > 100 mg/L, activated sludge, domestic (DIN EN ISO 8192-OECD 209-88/302/EWG, TC)
During correct introduction of low concentrations in biological wastewater treatment of the degradation activity of activated sludge is not expected.

Persistence and degradability
Assessment biodegradation and elimination (H2O):
The product can by abiotic processes, e.g. adsorption on activated sludge, are largely eliminated from the water.

Information on elimination:
> 70% DOC reduction (OECD 302B, ISO 9888, 88/302/EEC, part C) eliminated from the water well.
Bioaccumulation
Bioaccumulation potential:
The polymer component is not due to its structural properties bioavailable. Concentration in organisms is not expected.
additional information

Other ecotoxicological advice:
Do not release untreated into natural waters. Negative environmental effects are based on current knowledge is not expected.
The information available is determined by analogy.

13. Disposal

Must be in compliance with local regulations, such as a waste disposal site or incinerated are supplied.

A waste code in accordance with European Waste Catalogue (EWC) can not be determined because it depends on usage.
The national and local regulations are observed.

14. Transport information

Land transport ADR / RID and ADR / RID (cross border / domestic):
UN: --- no limitation

Maritime transport / RID:
UN: --- no limitation

Air transport ICAO-TI and IATA-DGR:
UN: --- no limitation
15. Legislation

Labeling according to EC Directives / relevant national laws:
**The product is not subject to classification.**

- Code letter and hazard designation: not applicable
- Hazardous components for labeling: **not applicable**
  - R-phrases:
  - S-phrases:

National regulations:
The national regulations must be observed

Clean Air: Water hazard class:
Type: Organic substances, 100% share WGK 1: slightly hazardous to water

Other notes: (Self-assessment)

16. Other Information

Full text of each in chapters 2 and 3 R-phrases: not applicable

Training advice:
Protective measures for dealing with freshly prepared polyurethane moldings:
Using this raw material produced polyurethane moldings, with non-covered surfaces can - depending on the processing parameters in the production - nor traces of substances (eg, initial and secondary products, catalysts, release agents) with hazardous properties (such as harmful, irritant, corrosive, sensitizing) contained on the surface. Skin contact with this substance marks should be avoided.

During the mold and otherwise dealing in fresh form at least parts of textile gloves should be used which are preferably coated on the palm and finger area from the outside with nitrile rubber, PVC or PUR. It is recommended that the conditions of normal handling of fresh polyurethane moldings matched protective clothing when required to wear long sleeves.

Note:
This safety data sheet supersedes all previous editions and is only valid. All information provided has been prepared to the best knowledge and belief, the technical and legal status at the time of the creation / revision of the corresponding material safety data sheet. Responsible for the compilation of safety data sheet:
See Chapter 1