

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

- **Product identifier**
- **Trade name:** HADALAN BM1K 32P
- **Article number:** 50214 A
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation**
1-component polyurethane resin as bonding agent for natural stone and decorative quartz linings in the outdoors, contains solvent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
*Heinrich Hahne GmbH & Co. KG
Heinrich-Hahne-Weg 11
45711 Datteln* *Tel.: 02363/5663-0*
- **Further information obtainable from:**
*Abteilung: Produktsicherheit
Tel.: 02363 5663-0
EMail: info@hahne-bautenschutz.de*
- **Emergency telephone number:**
*Giftinformationszentrum Nord (GIZ Nord) Universität Göttingen,
Tel.: 0551-19240*

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.

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- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 - **Hazard description:** Xn Harmful
 - **Information concerning particular hazards for human and environment:**
*R 10 Flammable.
R 20 Harmful by inhalation.
R 42/43 May cause sensitisation by inhalation and skin contact.
R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Contains isocyanates. May produce an allergic reaction.
Contains 3-isocyanatemethyl-3,5,5-trimethylcyclohexylisocyanate. May cause allergic reactions.*
 - **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
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- **Label elements**
 - **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

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











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- **Hazard-determining components of labelling:**
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate, xylene
- **Risk phrases:**
 - 10 Flammable.
 - 20 Harmful by inhalation.
 - 42/43 May cause sensitisation by inhalation and skin contact.
 - 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **Safety phrases:**
 - 23 Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).
 - 24/25 Avoid contact with skin and eyes.
 - 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 - 29/56 Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
 - 36/37 Wear suitable protective clothing and gloves.
 - 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- **Special labelling of certain preparations:** Contains isocyanates. May produce an allergic reaction.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Polyurethane prepolymer, containing solvents

· **Dangerous components:**

CAS: 93763-35-0 EINECS: 297-854-1	Hydrocarbons, C9-16, hydrotreated, dearomatized  Xn R65 -----  Asp. Tox. 1, H304	10-25%
CAS: 1330-20-7 EINECS: 215-535-7	xylene, mixed isomers, pure  Xn R20/21;  Xi R38 R10 -----  Flam. Liq. 3, H226;  Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	2.5-10%
CAS: 4098-71-9 EINECS: 223-861-6	3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate  T R23;  Xn R42/43;  Xi R36/37/38;  N R51/53 -----  Acute Tox. 3, H331;  Resp. Sens. 1, H334;  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319;  Skin Sens. 1, H317;  STOT SE 3, H335	< 0.5%

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

4 First aid measures

- **Description of first aid measures**
- **After inhalation:**
Immediately dexamethasone spray (Auxilison, Pumocrt) inhale. Patient to fresh air, seek medical attention
Inhalation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

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- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
Unaffected eye protect, remove contact lenses.
- **After swallowing:** Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **Information for doctor:**
Symptoms: After prolonged exposure to mild skin irritation possible. With aspiration can occur edema and pneumonia.
Irritating: on the skin and mucous membranes, has a narcotic effect. Decontamination, symptomatic treatment. After swallowing Induce vomiting or gastric lavage with enclosing administration of activated charcoal and sodium sulfate (each 1 tablespoon to 1/4 liter of water). Do not give adrenaline or derivatives. A toxic pulmonary edema can be detected radiographically at an early stage in a chest x-ray about 8 hours after inhalation (periphiläre turbidity). For comparison, therefore, a chest radiograph is recommended as soon as possible after inhalation, if the risk of pulmonary edema is suspected.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Water spray, foam, powder, CO₂
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**
Case of fire, CO₂, CO and nitrous gases possible.
Product reacts with water. Prevent ingress of water into the product and product containers - bursting through decomposition. Prevent spreading of vapors or product from reaching sewage system - risk of explosion. Spilled not burning product cover with foam. Affected by the fire cool, undamaged containers with water spray.
- **Advice for firefighters**
- **Protective equipment:** Use self contained breathing apparatus.
- **Additional information** Contaminated extinguishing water separately.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Clean on exit / discharge larger amounts of soil surface and discard.
- **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.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool, dry place.
Keep ignition sources away.
- **Information about storage in one common storage facility:** Do not store together with food and beverages.
- **Further information about storage conditions:** Keep container tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

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

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

1330-20-7 xylene, mixed isomers, pure (2.5-10%)

WEL	Short-term value: 441 mg/m ³ , 100 ppm Long-term value: 220 mg/m ³ , 50 ppm Sk; BMGV
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4098-71-9 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate (< 2.5%)

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
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- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
- **Respiratory protection:**
In inadequately ventilated places require respiratory protection. Recommendation: filter type A (B), possibly with P3.
- **Protection of hands:**
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
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.
Recommended: nitrile gloves or butyl rubber.

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- **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:** Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- **Form:** Fluid
- **Colour:** according to product specification
- **Odour:** Type specific, after solvent

· Change in condition

· **Boiling point/Boiling range:** Undetermined.

· **Flash point:** 48°C

· **Ignition temperature:** 450°C

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

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· Explosion limits:

- **Lower:** 0.7 Vol %
- **Upper:** 7.5 Vol %

· **Vapour pressure at 20°C:** 5 hPa

· **Density at 20°C:** 1.05 g/cm³

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Viscosity:

· **Dynamic at 20°C:** 2000 mPas

· Solvent content:

- **Organic solvents:** < 25 %
- **Other information** No further relevant information available.

10 Stability and reactivity

· Reactivity

· Chemical stability

· Thermal decomposition / conditions to be avoided:

Incomplete combustion of carbon monoxide, oxides of nitrogen. Violent reaction with strong oxidizing agents. Reacts with: amines, strong bases, alcohols, and under CO₂ capture with water and carboxylic acid.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** Water, strong oxidizing agents, amines, alcohols, strong bases.

· Hazardous decomposition products:

No decomposition if used according to specifications.

In combustion emits toxic fumes of carbon monoxide, carbon dioxide.

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11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

1330-20-7 xylene, mixed isomers, pure

Oral	LD50	8700 mg/kg (rat)
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Dermal	LD50	2000 mg/kg (rbt)
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Inhalative	LC50/4 h	6350 mg/l (rat)
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- **Primary irritant effect:**

- **on the skin:** Irritant

- **on the eye:** Irritant

- **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

- **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

Irritant

12 Ecological information

- **Toxicity**

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

- **Persistence and degradability** Biodegradable.

- **Behaviour in environmental systems:**

- **Bioaccumulative potential** No further relevant information available.

- **Mobility in soil** No further relevant information available.

- **Other information:** Forms solid reaction product with water.

- **Ecotoxicological effects:**

- **Remark:** Harmful to fish

- **Additional ecological information:**

- **General notes:**

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation**

Must not be disposed together with household garbage. Do not empty into drains.

Cover spillage with moist absorbent material (sand, sawdust, general-purpose binder). Record after about 1 hour transfer to waste container and do not seal (evolution of CO₂). Keep moist and let stand in a safe place outdoors 7-14 days and then dispose of regulated waste.

- **European waste catalogue**

08 01 11*	waste paint and varnish containing organic solvents or other dangerous substances
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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|---------------------------------|
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not hazardous according to ADR. |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Technical instructions (air):**

Class	Share in %
I	0.4
NK	16.0

- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
This product is subject to Directive 2004/42 / EC.
EU limit value for the VOC content of this product is ready for use: 600 g / l (2007), 500 g / l (2010).
The product contains a ready to use product: <200 g / l VOC.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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 phrases**

- | | |
|-----------|---|
| 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. |
| H331 | Toxic if inhaled. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |
| H411 | Toxic to aquatic life with long lasting effects. |
| | |
| R10 | Flammable. |
| R20/21 | Harmful by inhalation and in contact with skin. |
| R23 | Toxic by inhalation. |
| R36/37/38 | Irritating to eyes, respiratory system and skin. |
| R38 | Irritating to skin. |
| R42/43 | May cause sensitisation by inhalation and skin contact. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

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Safety data sheet
according to 1907/2006/EC, Article 31

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R65 *Harmful: may cause lung damage if swallowed.*

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· Abbreviations and acronyms:

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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