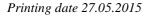


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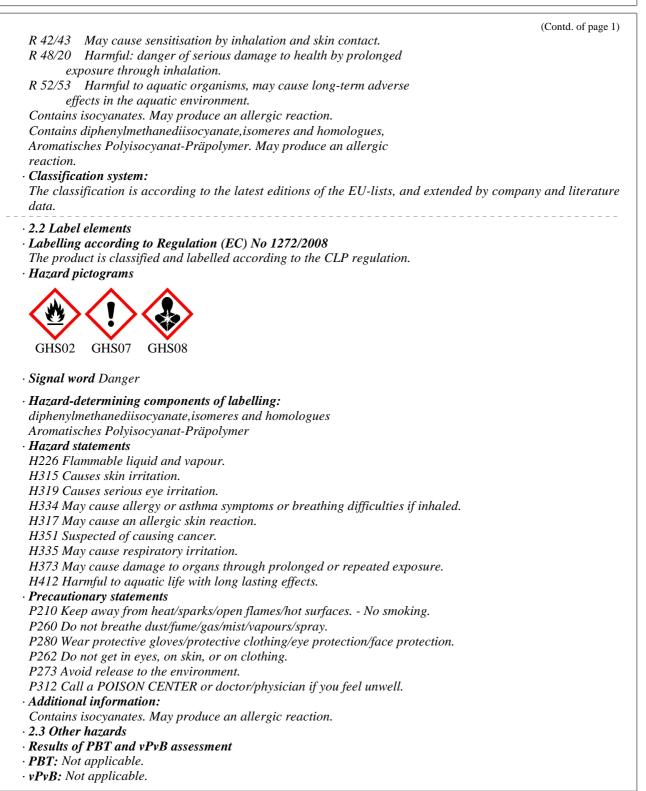
· 1.1 Product ide	ntifier
· Trade name: <u>H</u>	ADALAN DD 32P
No further releve • Application of	: 50012 C entified uses of the substance or mixture and uses advised against eant information available. the substance / the mixture ning, chemical-resistant synthetic resin sealing for floors exposed to high mechanical and
· Manufacturer/	e GmbH & Co. KG
Abteilung: Prod Tel.: 02363 566 EMail: info@ha • 1.4 Emergency	3-0 hne-bautenschutz.de telephone number: szentrum Nord (GIZ Nord) Universität Göttingen,
SECTION 2	Hazards identification
	on of the substance or mixture
· Classification a	according to Regulation (EC) No 1272/2008
	according to Regulation (EC) No 1272/2008
GHS Flam. Liq. 3	according to Regulation (EC) No 1272/2008
Flam. Liq. 3 GHS GHS Resp. Sens. 1	D2 flame H226 Flammable liquid and vapour. D8 health hazard H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Flam. Liq. 3	22 flame H226 Flammable liquid and vapour. D8 health hazard
Flam. Liq. 3 Flam. Liq. 3 GHS Resp. Sens. 1 Carc. 2	22 flame H226 Flammable liquid and vapour. D8 health hazard H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.
Flam. Liq. 3 Flam. Liq. 3 GHS Resp. Sens. 1 Carc. 2 STOT RE 2	22 flame H226 Flammable liquid and vapour. D8 health hazard H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.
GHS Flam. Liq. 3 GHS Resp. Sens. 1 Carc. 2 STOT RE 2 GHS Skin Irrit. 2 Eye Irrit. 2	 <i>According to Regulation (EC) No 1272/2008</i> <i>D2 flame</i> <i>H226 Flammable liquid and vapour.</i> <i>D8 health hazard</i> <i>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</i> <i>H351 Suspected of causing cancer.</i> <i>H373 May cause damage to organs through prolonged or repeated exposure.</i> <i>H315 Causes skin irritation.</i> <i>H319 Causes serious eye irritation.</i>
GHS Flam. Liq. 3 Flam. Liq. 3 GHS Resp. Sens. 1 Carc. 2 STOT RE 2 GHS Skin Irrit. 2 Eye Irrit. 2 Skin Sens. 1	 D2 flame H226 Flammable liquid and vapour. D8 health hazard H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction.
GHS Flam. Liq. 3 GHS Resp. Sens. 1 Carc. 2 STOT RE 2 GHS Skin Irrit. 2 Eye Irrit. 2	 <i>According to Regulation (EC) No 1272/2008</i> <i>D2 flame</i> <i>H226 Flammable liquid and vapour.</i> <i>D8 health hazard</i> <i>H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.</i> <i>H351 Suspected of causing cancer.</i> <i>H373 May cause damage to organs through prolonged or repeated exposure.</i> <i>H315 Causes skin irritation.</i> <i>H319 Causes serious eye irritation.</i>
Flam. Liq. 3 Flam. Liq. 3 GHS Resp. Sens. 1 Carc. 2 STOT RE 2 GHS Skin Irrit. 2 Eye Irrit. 2 Skin Sens. 1 STOT SE 3	 D2 flame H226 Flammable liquid and vapour. D8 health hazard H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction.
Flam. Liq. 3 Flam. Liq. 3 GHS Resp. Sens. 1 Carc. 2 STOT RE 2 GHS Skin Irrit. 2 Eye Irrit. 2 Skin Sens. 1 STOT SE 3 Aquatic Chroni Hazard descrip Information co R 10 Flamn R 20 Harmj R 36/37/38 Irrit	 Coording to Regulation (EC) No 1272/2008 22 flame H226 Flammable liquid and vapour. 28 health hazard H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure. 207 H315 Causes skin irritation. H319 Causes serious eye irritation. H317 May cause an allergic skin reaction. H335 May cause respiratory irritation. c 3 H412 Harmful to aquatic life with long lasting effects. ccoording to Directive 67/548/EEC or Directive 1999/45/EC tion: Xn Harmful ncerning particular hazards for human and environment:



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SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Solution of a polyisocyanate based on diphenylmethane diisocyanate

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	· · · · · · · · · · · · · · · · · · ·	td. of page 2
Dangerous compone	ents:	
CAS: 9016-87-9	diphenylmethanediisocyanate,isomeres and homologues Xn R20-40-48; Xn R42/43; Xi R36/37/38	50-100%
	 Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335 	
CAS: 64742-47-8 EINECS: 265-149-8		10-25%
	Flam. Liq. 3, H226; Aquatic Chronic 2, H411; STOT SE 3, H336	
CAS: 1330-20-7	xylene, mixed isomers, pure	2.5-10%
EINECS: 215-535-7	Xn R20/21; Xi R38 R10	
	Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	

SECTION 4: First aid measures

• 4.1 Description of first aid measures

· General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

• After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact: Immediately wash with water and soap and rinse thoroughly.

• After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• After swallowing: Drink plenty of water and provide fresh air. Call for a doctor 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

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Ode larger fires with water spray or alcohol resistant foam.

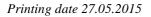
- For safety reasons unsuitable extinguishing agents: Water with full jet
- \cdot 5.2 Special hazards arising from the substance or mixture
- During heating or in case of fire poisonous gases are produced.
- · 5.3 Advice for firefighters
- · Protective equipment: Mount respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
- 6.2 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.

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• 6.3 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

• **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. Prevent formation of aerosols.

- *Information about fire and explosion protection: Keep ignition sources away - Do not smoke. Protect against electrostatic charges.*
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- · Information about storage in one common storage facility: Keep away from foodstuffs.
- · Further information about storage conditions: Keep container tightly sealed.
- Storage class: Storage class: 3 Flammable liquids (flash point below 55 °C)
- 7.3 Specific end use(s) No further relevant information available.

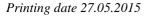
SECTION 8: Exposure controls/personal protection

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

101-68-8 dip	phenylmethane-4,4'-di-isocyanante (50-100%)	
WEL	Short-term value: 0.07 mg/m ³	
	Long-term value: 0.02 mg/m^3	
	Sen; as -NCO	
1330-20-7 x	ylene, mixed isomers, pure (10-25%)	
WEL	Short-term value: 441 mg/m ³ , 100 ppm	
	Long-term value: 220 mg/m ³ , 50 ppm	
	Sk; BMGV	
64742-47-8	Distillates (petroleum), hydrotreated light (10-25%)	
Technical R	ule 900 Short-term value: 500 mg / m³, 100 ml / m³	
Additional i	nformation: The lists valid during the making were used as basis.	
8.2 Exposur	ve controls	
-	otective equipment:	
	tective and hygienic measures:	
	from foodstuffs, beverages and feed.	
	remove all soiled and contaminated clothing	
•	before breaks and at the end of work.	
	ct with the eyes and skin.	
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• 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. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Solvent resistant gloves.

· 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.

- Protective gloves made of rubber or nitrile rubber.
- · Penetration time of glove material

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

- Eye protection: Tightly sealed goggles
- · Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

General Information	
Appearance:	
Form:	Fluid
Colour:	Light yellow
Odour:	Characteristic
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	
Flash point:	30 °C
Ignition temperature:	210 °C
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapou mixtures are possible.
Explosion limits:	
Lower:	0.4 Vol %
Upper:	7.0 Vol %
Vapour pressure at 20 °C:	6.7 hPa
Density at 20 °C:	1.09 g/cm ³
Solubility in / Miscibility with water:	Not miscible or difficult to mix.
Viscosity:	
Kinematic at 20 °C:	20 s (DIN 53211/4)
9.2 Other information	No further relevant information available.

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SECTION 10: Stability and reactivity

· 10.1 Reactivity

· 10.2 Chemical stability

- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions Exothermic reactions with amines and alcohols.
- 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity:

· LD/LC50 values relevant for classification:

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral LD50 >15000 mg/kg (rat)

Inhalative LC50/4 h 490 mg/m3 (rat)

1330-20-7 xylene, mixed isomers, pure

Oral	LD50	8700 mg/kg (rat)
	LD50	2000 mg/kg (rbt)
Inhalative	LC50/4 h	6350 mg/l (rat)

· Primary irritant effect:

- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- · Sensitisation:

Sensitisation possible through inhalation.

Sensitisation possible through skin contact.

Possible in some hypersensitive people, reactions even at low isocyanate.

• 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

SECTION 12: Ecological information

· 12.1 Toxicity

- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- Other information:
- Biodegradation:

Diphenylmethane diisocyanate, isomers and homologues

- 0% 28 d, that is, unworkable
- Method: respirometer test
- Toxicity to fish: LCO> 1,000 mg / l
- Test Species: Brachydanio rerio (zebra fish) Duration of test: 96 h
- Acute Toxicity to daphnia: EC50> 1000 mg / l
- Test species: Daphnia magna (water flea) Duration of test: 24 h
- Acute Toxicity to bacteria: EC50> 100 mg / l
- Tested on: activated sludge test duration: 3 h
- \cdot 12.3 Bioaccumulative potential No further relevant information available.

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- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:
- Harmful to aquatic organisms
- 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.
- The product reacts with water forming CO2 and a solid insoluble, high-melting polyurea is inert and nondegradable according to previous experience.
- · 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
- Must not be disposed together with household garbage. Do not empty into drains. For disposal, local regulations have to be observed. Uncured component to a suitable incineration.

· European waste catalogue

08 01 11* waste paint and varnish containing organic solvents or other dangerous substances

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

14.1 UN-Number	
ADR, IMDG, IATA	UN1139
14.2 UN proper shipping name	
ADR	1139 COATING SOLUTION (not viscous)
IMDG, IATA	COATING SOLUTION
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class	3 Flammable liquids.
Label	3
14.4 Packing group	
ADR, IMDĞ, IATA	111
14.5 Environmental hazards:	Not applicable.
Marine pollutant:	nein
14.6 Special precautions for user	Warning: Flammable liquids.
	30
Danger code (Kemler):	50



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· 14.7 Transport in bulk according to Anno MARPOL73/78 and the IBC Code	ex II of Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Transport category	3
• Tunnel restriction code	D/E
· UN ''Model Regulation'':	UN1139, COATING SOLUTION (not viscous), 3, III

SECTION 15: Regulatory information

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

· National regulations:

• Technical instructions (air):

Class	Share in %
Ι	31.0
NK	17.0

• Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

• Other regulations, limitations and prohibitive regulations Rule 905 Classification: Tech. ("Polymer") MDI (pMDI) CAS No.:. 9016-87-9 (as respirable aerosols, respirable fraction) carcinogenic, category 3 Note the leaflet BG Chemie M 044 "polyurethane production and Processing / isocyanates."

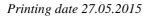
· VOC (EU)

The product is subject to Directive 2004/42 / EC. EU limit value of this product is used in the finished state: Cat A / i max. 500 g / l (2010). The product contains the needed finished state: max. 350 g / l VOC. • **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.

· Relevant	phrases
H226	Flammable liquid and vapour.
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.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
R10	Flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
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R36/37/3	88 Irritating to eyes, respiratory system and skin.
R38	Irritating to skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.
R48	Danger of serious damage to health by prolonged exposure.
R65	Harmful: may cause lung damage if swallowed.
Abbrevia	tions and acronyms:
	ement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the
	al Transport of Dangerous Goods by Rail)
ICAO: Inte	ernational Civil Aviation Organisation
	ord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International
0	f Dangerous Goods by Road)
	ernational Maritime Code for Dangerous Goods
	rnational Air Transport Association
	ally Harmonised System of Classification and Labelling of Chemicals
	European Inventory of Existing Commercial Chemical Substances
	European List of Notified Chemical Substances
	nical Abstracts Service (division of the American Chemical Society)
	hal concentration, 50 percent
	hal dose, 50 percent
	3: Flammable liquids, Hazard Category 3
	4: Acute toxicity, Hazard Category 4 2: Skin corrosion/irritation, Hazard Category 2
	2: Skin corrosion/irritation, Hazara Calegory 2 2: Serious eye damage/eye irritation, Hazard Category 2
	. 1: Sensitisation - Respirat., Hazard Category 1
	1: Sensitisation - Kespiral, Hazard Category 1 1: Sensitisation - Skin, Hazard Category 1
	arcinogenicity, Hazard Category 2
	: Specific target organ toxicity - Single exposure, Hazard Category 3
	2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
	aronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2
	nronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3
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