



Safety data sheet

according to 1907/2006/EC, Article 31

Version: 7

Trade name: **HIGH STRENGTH PUR ADHESIVE**Revision: 001
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- P210 Keep away from open flames. - No smoking.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P312 Call a POISON CENTER or doctor/physician if you feel unwell.
 P402+P404 Store in a dry place. Store in a closed container.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Additional information:**
 Contains isocyanates. May produce an allergic reaction.
 Restricted to professional users.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment** Not applicable.
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 141-78-6 EINECS: 205-500-4	ethyl acetate ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	10-25%
CAS: 9016-87-9 Polymer	diphenylmethanediisocyanate, isomeres and homologues ⚠ 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	2.5-10%

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

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
 Personal protection for the First Aider.
 Remove contaminated clothing. If symptoms persist or in cases of doubt seek medical advice.
- **After inhalation:**
 In case of unconsciousness place patient stably in side position for transportation.
 Supply fresh air and to be sure call for a doctor.
 If the casualty is not breathing: Perform mouth-to-mouth or mouth-to-nose resuscitation, notify emergency physician immediately
- **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:**
 Rinse mouth with water.
 If symptoms persist consult doctor.
- **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, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:**
 Water
 Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
 Under certain fire conditions, traces of other toxic gases cannot be excluded, e.g.:
 Carbon monoxide (CO)
- **5.3 Advice for firefighters**
- **Protective equipment:**
 Wear self-contained respiratory protective device.

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SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Prevent seepage into sewage system, workpits and cellars.

Do not allow to enter sewers/ surface or ground water.

· 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.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

As of July 2003, organizations in the EU must follow the directives to protect employees from explosion risk in areas with an explosive atmosphere.

There are two ATEX directives (one for the manufacturer and one for the user of the equipment):

- the ATEX 95 equipment directive 94/9/EC, Equipment and protective systems intended for use in potentially explosive atmospheres;

- the ATEX 137 workplace directive 99/92/EC, Minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

- **Requirements to be met by storerooms and receptacles:** Store in a cool location.

- **Information about storage in one common storage facility:** Not required.

· Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

· 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

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

141-78-6 ethyl acetate

WEL Short-term value: 400 ppm

Long-term value: 200 ppm

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

WEL Short-term value: 0.07 mg/m³Long-term value: 0.02 mg/m³

Sen; as -NCO

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

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Wear high-quality protective equipment during operations such as grinding, drilling and/or sawing

Dust mask FFP3 (Filtering Facepiece Partikel) (EN 149: 2001)

Gloves (grinding) (EN388 (4.1.3.1))

Safety glasses (EN166-168, 170)

Hearing protection (EN352-2)

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Vacuum clean contaminated clothing. Do not blow or brush off contamination.
 Store protective clothing separately.
 The usual precautionary measures are to be adhered to when handling chemicals.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.
 Avoid contact with the eyes and skin.
 Do not carry product impregnated cleaning cloths in trouser pockets.

Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.
 Oxygen content of the inhalation air must be sufficient i.e. > 17%
 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.
 Filter AXP3(EN371)

Protection of hands:


Protective gloves

Nitrile rubber gloves(EN374, EN388:4101).
 Permeation EN374-3: 2003 (minutes) > 480 minutes
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 While wearing protective gloves cotton single-use undergloves are recommendable. However, these undergloves must be discarded after each use to avoid potential exposure to absorbed product.

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.

For the permanent contact gloves made of the following materials are suitable: Nitril rubber, NBR

For contact of maximum 15 minutes, gloves made of the following materials are suitable: Nitrile rubber, NBR

Eye protection:


Tightly sealed goggles

Safety glasses(EN166)

Body protection: Protective work clothing(EN 340, 463, 468, 943-1, 943-2)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance:

Form: Fluid
Colour: Amber coloured
Odour: Characteristic

pH-value: Not applicable.

Change in condition

Boiling point/Boiling range: 40 °C

Flash point: -4 °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: 2.1 Vol %
Upper: 11.5 Vol %

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- | | |
|---|--|
| · Vapour pressure at 20 °C: | 97 hPa |
| · Density at 20 °C: | 1.05 g/cm ³ |
| · Solubility in / Miscibility with water(20 °C): | Not miscible or difficult to mix. |
| · Viscosity: | |
| Dynamic at 20 °C: | 2500 mPas |
| · Solvent content: | |
| Organic solvents: | 16.8 % |
| · 9.2 Other information | No further relevant information available. |

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

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
The product has not been tested. The statements underneath have been derived from the properties of the individual components.

- **Acute toxicity**

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

141-78-6 ethyl acetate

Oral	LD50	5620 mg/kg (Rabbit)
Inhalative	LC50, 4h	1600 mg/l (Rat)

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	> 10000 mg/kg (Rat) Referenz: National Technical Information Service. Vol. OTS0516728,
Dermal	LD50	> 9400 mg/kg (Rabbit) Referenz: Office of Toxic Substances Report. Vol. OTS0517028
Inhalative	ATE mix dust/mist (calculated)	1.5 mg/l, 4h (Rat) (Expert judgement)

- **Primary irritant effect:**
- **Skin corrosion/irritation** No irritant effect.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation**
Sensitisation possible through inhalation.
Sensitisation 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

- **Acute effects (acute toxicity, irritation and corrosivity)**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

OECD 405, slijmvliesirritatie	non-irritant (Rabbit) Toxicological study of a comparable product
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- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Carc. 2

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SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

141-78-6 ethyl acetate

EC50, 24h > 164 mg/l (Daphnia magna)

LC50, 96h > 230 mg/l (Fish)

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

EC50, 24h > 1000 mg/l (Daphnia magna)

EC50, 24h OECD 202 > 1000 mg/l (Daphnia magna)

EC50, 72h OECD201 > 1640 mg/l (Scenedesmus subspicatus)

LC0, 96h > 1000 mg/l (Zebraabärbling)

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.

Ecotoxicological effects:

Other information:

Ecotoxicological data have not been determined specifically for this product. Information given is based on knowledge of the components and the ecotoxicology of similar products.

Additional ecological information:

General notes:

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

Do not allow undiluted product or large quantities of it 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

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

European waste catalogue Please contact your waste disposer for the exact waste code.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA UN1133

14.2 UN proper shipping name

ADR 1133 ADHESIVES, special provision 640H

IMDG, IATA ADHESIVES

14.3 Transport hazard class(es)

ADR



Class 3 (F1) Flammable liquids.

Label 3

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· **IMDG, IATA**

· Class	3 Flammable liquids.
· Label	3
· 14.4 Packing group	
· ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	33
· EMS Number:	F-E,S-D
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Remarks:	The product is, based on the viscosity, classified in accordance with IMDG, Part 2, Chapter 2.3, Paragraph 2.3.2.
· UN "Model Regulation":	UN1133, ADHESIVES, special provision 640H, 3, III

* **SECTION 15: Regulatory information**· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**· **National regulations:**

Class	Share in %
I	2,5-10
NK	10-25

· **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.· **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**

H225 Highly flammable liquid and vapour.

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.

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H373 May cause damage to organs through prolonged or repeated exposure.

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)

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Liq. 2: Flammable liquids, Hazard Category 2

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Sources

Classification corresponds to the current lists of the EEC, is supplemented with data from publications and data from the company.

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

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