

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

- **1.1 Product identifier**
- **Trade name: UHU plus endfest 300 (Binder)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Adhesives
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
UHU GmbH & Co.KG
Herrmannstraße 7
D-77815 Bühl (Baden)
Tel.: 0049-(0)7223-284-0
email: info@uhu.boltongroup.de
- Fax: 0049-(0)7223-284-245
- **Further information obtainable from: CRD**
- **1.4 Emergency telephone number: Tel.: +49 (0) 72 23/28 40**

SECTION 2: Hazards identification

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



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/38: Irritating to eyes and skin.



Xi; Sensitising

R43: May cause sensitisation by skin contact.



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **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.
- **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**

- **Labelling according to EU guidelines:**
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

(Contd. on page 2)

Trade name: UHU plus endfest 300 (Binder)

(Contd. of page 1)

Code letter and hazard designation of product:

 Xi Irritant
 N Dangerous for the environment

Hazard-determining components of labelling:

 reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700)

 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)

Risk phrases:

36/38 Irritating to eyes and skin.

43 May cause sensitisation by skin contact.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety phrases:

2 Keep out of the reach of children.

23 Do not breathe vapour/spray.

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.

37 Wear suitable gloves.

46 If swallowed, seek medical advice immediately and show this container or label.

57 Use appropriate container to avoid environmental contamination.

Special labelling of certain preparations:

After article 10 no. 4 of DIRECTIVE 1999/45/EC it shall not be necessary to indicate the R phrases or the S phrases, if the contents of the package do not exceed 125 ml.

Contains epoxy constituents. See information supplied by the manufacturer.

2.3 Other hazards
Results of PBT and vPvB assessment















 • **PBT:** Not applicable.

 • **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients
3.2 Mixtures

 • **Description:** Adhesive

Dangerous components:

CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight \leq 700)  Xi R36/38;  Xi R43;  N R51/53  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319;  Skin Sens. 1, H317	50-100%
CAS: 9003-36-5	reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700)  Xi R36/38;  Xi R43;  N R51/53  Aquatic Chronic 2, H411;  Skin Irrit. 2, H315;  Eye Irrit. 2, H319;  Skin Sens. 1, H317	5,0-<10%

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

EU

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.03.2014

Version number 4

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Binder)

(Contd. of page 2)

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help 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:**
Water spray
Carbon dioxide
Foam
Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide (CO)
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
- **6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Pick up mechanically.
Dispose of the material collected according to regulations.
- **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.
Store in cool, dry place in tightly closed receptacles.

(Contd. on page 4)

Trade name: UHU plus endfest 300 (Binder)

(Contd. of page 3)

- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store receptacle in a well ventilated area.
- **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:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Avoid direct contact with the chemical/ the product/ the preparation by organizational measures.
- **Respiratory protection:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Protective gloves

Rubber gloves

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:** Safety glasses

SECTION 9: Physical and chemical properties

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

Form:	Fluid
Colour:	Colourless

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.03.2014

Version number 4

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Binder)

(Contd. of page 4)

· Odour:	Weak, characteristic
· pH-value at 20 °C:	6
· Change in condition Melting point/Melting range: Undetermined. Boiling point/Boiling range: > 200 °C	
· Flash point:	210 °C
· Self-igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Density at 20 °C:	1,15 g/cm ³
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Viscosity: Dynamic at 20 °C:	40000 mPas
· Solvent content: Organic solvents: VOC (EC)	0,0 % 0,00 %
· Solids content:	100,0 %
· 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**
Exothermic polymerization.
Reacts with amines.
- **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:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** 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:
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.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.03.2014

Version number 4

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Binder)

(Contd. of page 5)

- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
 Danger to drinking water if even small quantities leak into the ground.
 Also poisonous for fish and plankton in water bodies.
 Toxic for aquatic organisms
 Do not allow product 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.
 Disposal must be made according to official regulations.

- **European waste catalogue**

08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
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- **Uncleaned packaging:**
- **Recommendation:**
 Disposal must be made according to official regulations.
 Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN3082

- **14.2 UN proper shipping name**
- **ADR** 3082 UMWELTGEFÄHRDENDER STOFF, FLÜSSIG, N.A.G. (Reaktionsprodukt: Bisphenol-A-Epichlorhydrinharze mit durchschnittlichem Molekulargewicht \leq 700, Bisphenol-F-Epichlorhydrinharze MG < 700)
- **IMDG** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight = 700)), MARINE POLLUTANT
- **IATA** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700), reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight = 700))

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.03.2014

Version number 4

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Binder)

(Contd. of page 6)

· 14.3 Transport hazard class(es)
· ADR, IMDG, IATA


· Class	9 Miscellaneous dangerous substances and articles.
· Label	9

· 14.4 Packing group
· ADR, IMDG, IATA III

· 14.5 Environmental hazards:
Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)
· Marine pollutant:

 No
 Symbol (fish and tree)

· Special marking (ADR):

Symbol (fish and tree)

· Special marking (IATA):

Symbol (fish and tree)

· 14.6 Special precautions for user
Warning: Miscellaneous dangerous substances and articles.
· Danger code (Kemler):

90

· EMS Number:

F-A,S-F

· 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

· Transport category

3

· Tunnel restriction code

E

· UN "Model Regulation":
UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700), reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)), 9, III

SECTION 15: Regulatory information

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

No further relevant information available.

· 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

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

(Contd. on page 8)

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

Printing date 18.03.2014

Version number 4

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Binder)

(Contd. of page 7)

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

R36/38 Irritating to eyes and skin.

R43 May cause sensitisation by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Department issuing MSDS:** CRD

· **Contact:**

Frau A. Liar,

Herr Dr. C. Hanf

· **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 Organization

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 Harmonized 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)

VOC: Volatile Organic Compounds (USA, EU)

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

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

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

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

EU

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

- **1.1 Product identifier**
- **Trade name:** UHU plus endfest 300 (Härter)
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Adhesives
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
UHU GmbH & Co.KG
Herrmannstraße 7
D-77815 Bühl (Baden)
Tel.: 0049-(0)7223-284-0
email: info@uhu.boltongroup.de
- Fax: 0049-(0)7223-284-245
- **Further information obtainable from:** CRD
- **1.4 Emergency telephone number:** Tel.: +49 (0) 72 23/28 40

SECTION 2: Hazards identification

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



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/38: Irritating to eyes and skin.



Xi; Sensitising

R43: May cause sensitisation by skin contact.

- **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.

- **Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- **2.2 Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

The R and S phrases may be omitted if packaging contains no more than 0.125 litre.

- **Code letter and hazard designation of product:**



Xi Irritant

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.03.2014

Version number 9

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Härter)

(Contd. of page 1)

Hazard-determining components of labelling:

N'-(3-aminopropyl)-*N,N*-dimethylpropane-1,3-diamine
Triethylentetramin

Risk phrases:

36/38 Irritating to eyes and skin.
43 May cause sensitisation by skin contact.

Safety phrases:

2 Keep out of the reach of children.
23 Do not breathe vapour/spray.
25 Avoid contact with eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
56 Dispose of this material and its container to hazardous or special waste collection point.
60 This material and its container must be disposed of as hazardous waste.











2.3 Other hazards
Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Description: Adhesive

Dangerous components:

CAS: 10563-29-8 EINECS: 234-148-4	<i>N</i> '-(3-aminopropyl)- <i>N,N</i> -dimethylpropane-1,3-diamine  C R34;  Xn R21/22;  Xi R43 -----  Skin Corr. 1B, H314;  Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317	5,0-<10%
CAS: 112-24-3 EINECS: 203-950-6	Triethylentetramin  C R34;  Xn R21;  Xi R43 R52/53 -----  Skin Corr. 1B, H314;  Acute Tox. 4, H312; Skin Sens. 1, H317; Aquatic Chronic 3, H412	5,0-<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: Immediately remove any clothing soiled by the product.

After inhalation: Supply fresh air; consult doctor in case of complaints.

After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

(Contd. on page 3)

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

Printing date 18.03.2014

Version number 9

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Härter)

(Contd. of page 2)

- **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:**
Water spray
Carbon dioxide
Foam
Fire-extinguishing powder
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Nitrogen oxides (NO_x)
Carbon monoxide (CO)
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
- **6.2 Environmental precautions:** 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).
Pick up mechanically.
- **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.
Store in cool, dry place in tightly closed receptacles.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
Store only in the original receptacle.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store receptacle in a well ventilated area.
- **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.

(Contd. on page 4)

Trade name: UHU plus endfest 300 (Härter)

(Contd. of page 3)

· **8.1 Control parameters**

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

112-24-3 Triethylentetramin

MAK (Germany) | vgl. Abschn. IV

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

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Avoid direct contact with the chemical/ the product/ the preparation by organizational measures.

· **Respiratory protection:** Not necessary if room is well-ventilated.

· **Protection of hands:**



Protective gloves

Rubber gloves

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:** Safety glasses

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Fluid

Colour: Yellow

· **Odour:** Amine-like

· **pH-value at 20 °C:** 12 (1:1 in H₂O)

· **Change in condition**

Melting point/Melting range: Undetermined.

Boiling point/Boiling range: > 200 °C

· **Flash point:** 110 °C

· **Ignition temperature:** 335 °C

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

· **Danger of explosion:** Product does not present an explosion hazard.

· **Density at 20 °C:** 0,95 g/cm³

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.03.2014

Version number 9

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Härter)

(Contd. of page 4)

- | | |
|--|--|
| · Solubility in / Miscibility with water: | Not miscible or difficult to mix. |
| · Viscosity:
Dynamic at 20 °C: | 32500 mPas |
| · Solvent content:
Organic solvents:
VOC (EC) | 0,0 %
0,00 % |
| · Solids content: | 100,0 % |
| · 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:** 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:**

112-24-3 Triethylentetramin

Oral	LD50	2500 mg/kg (rat)
Dermal	LD50	805 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** 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:
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.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 18.03.2014

Version number 9

Revision: 17.03.2014

Trade name: UHU plus endfest 300 (Härter)

(Contd. of page 5)

- **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.
 Disposal must be made according to official regulations.

- **European waste catalogue**

08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
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- **Uncleaned packaging:**
- **Recommendation:**
 Disposal must be made according to official regulations.
 Packagings that may not be cleansed are to be disposed of in the same manner as the product.

SECTION 14: Transport information

- | | |
|---|-----------------|
| <ul style="list-style-type: none"> · 14.1 UN-Number · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class | Void |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: | No |
| <ul style="list-style-type: none"> · 14.6 Special precautions for user | Not applicable. |
| <ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| <ul style="list-style-type: none"> · UN "Model Regulation": | - |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
 No further relevant information available.
- **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**
 H302 Harmful if swallowed.

(Contd. on page 7)

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

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Version number 9

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Trade name: UHU plus endfest 300 (Härter)

(Contd. of page 6)

*H312 Harmful in contact with skin.**H314 Causes severe skin burns and eye damage.**H317 May cause an allergic skin reaction.**H412 Harmful to aquatic life with long lasting effects.**R21 Harmful in contact with skin.**R21/22 Harmful in contact with skin and if swallowed.**R34 Causes burns.**R43 May cause sensitisation by skin contact.**R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.***· Department issuing MSDS: CRD****· Contact:**

Frau A. Liar,

Herr Dr. C. Hanf

· 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 Organization**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 Harmonized 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)**VOC: Volatile Organic Compounds (USA, EU)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**Acute Tox. 4: Acute toxicity, Hazard Category 4**Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B**Skin Sens. 1: Sensitisation - Skin, Hazard Category 1**Aquatic Chronic 3: Hazardous to the aquatic environment - Chronic Hazard, Category 3*