

SECTION 01: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:**
STAUF PUK 447 Component A
- **Article number:**
124280
- **Product Group**
2-component polyurethane adhesive
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category**
PC1 Adhesives, sealants
- **Application of the substance / the preparation**
Adhesives
- **Remark:**
Restricted to professional users.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
STAUF Klebstoffwerk GmbH
Oberhausener Strasse 1
57234 Wilnsdorf, Germany
+49-(0)2739-301-0
+49-(0)2739-301-200
- **1.4 Further information obtainable from:**
quality management
QS@stauf.de
- **1.5 Emergency telephone number:**
CARECHEM24- EU: +44 1235 239670
CARECHEM24 International, +44 1865 407333

SECTION 02: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
Void
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
- **Hazard pictograms**
Void
- **Signal word**
Void
- **Hazard statements**
Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:**
Not applicable.
- **vPvB:**
Not applicable.

Safety data sheet

according to 1907/2006/EC, Article 31



Revision: 07.08.2024

Printing date: 07.08.2024

PRODUCT : STAUF PUK 447 Component A*(Contd. of page 1)***SECTION 03: Composition/information on ingredients**

- **3.2 Mixtures**
- **Description:**
Mixture of substances listed below with nonhazardous additions.
- **Dangerous components:**
Void
- **SVHC**
Void
- **Additional information:**
For the wording of the listed risk phrases refer to section 16.
Observe the safety data sheet for the hardener component.

SECTION 04: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
No special measures required.
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with water and soap.
Generally the product does not irritate the skin
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
Remove contact lenses, if present and easy to do.
- **After swallowing:**
Do not induce vomiting; call for medical help immediately.
Rinse the mouth with water.
- **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 05: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:**
Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
Do not inhale explosion gases or combustion gases.
- **Protective equipment:**
Wear self-contained respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 06: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
- **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).

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31



Revision: 07.08.2024

Printing date: 07.08.2024

PRODUCT : STAUF PUK 447 Component A*(Contd. of page 2)*

- **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 07: Handling and storage

- **7.1 Precautions for safe handling**
Use only in well ventilated areas.
Avoid contact with the eyes and skin.
- **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:**
No special requirements.
- **Information about storage in one common storage facility:**
Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in dry conditions.
- **7.3 Specific end use(s)**
No further relevant information available.

SECTION 08: Exposure controls/personal protection

- **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**
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Wash hands before breaks and at the end of work, use skin care products.
Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.
- **Respiratory protection: Not necessary if room is well-ventilated.**
- **Protection of hands: After use of gloves apply skin-cleaning agents and skin cosmetics.**
- **Material of gloves**
Butyl rubber, BR
Nitrile rubber, NBR
- **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/face protection Tightly sealed goggles**
- **Body protection: Protective work clothing**

GB

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31



Revision: 07.08.2024

Printing date: 07.08.2024

PRODUCT : STAUF PUK 447 Component A

(Contd. of page 3)

SECTION 09: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Viscous
Colour:	Beige
Odour:	Weak, characteristic
Odour threshold:	Characteristic
Important information on protection of health and environment, and on pH	safety.
pH	Not determined.

Boiling point or initial boiling point and boiling range	314 °C
-----------------------------------------------------------------	--------

Flash point:	229 °C
---------------------	--------

Flammability	Not applicable.
---------------------	-----------------

Ignition temperature:	451 °C
------------------------------	--------

Decomposition temperature:	Not determined.
-----------------------------------	-----------------

Auto-ignition temperature:	Not determined.
-----------------------------------	-----------------

Lower and upper explosion limit

Lower:	Not determined.
---------------	-----------------

Upper:	Not determined.
---------------	-----------------

Vapour pressure:	at 20 °C 1,0000 hPa
-------------------------	---------------------

Density:	1,8200 - 1,9000 g/cm ³
-----------------	-----------------------------------

Vapour density	Not determined.
-----------------------	-----------------

Solubility

water:	Not miscible or difficult to mix.
---------------	-----------------------------------

Partition coefficient n-octanol/water (log value)	Not determined.
----------------------------------------------------------	-----------------

Viscosity:

Dynamic:	at 20 °C 130 - 180 Pa.s
-----------------	-------------------------

Solvent content:

VOC (EC)	0,00 %
-----------------	--------

9.2 Other information	No further relevant information available.
------------------------------	--------------------------------------------

Density and/or relative density

Physical state	Fluid
-----------------------	-------

SECTION 10: Stability and reactivity

• 10.1 Reactivity

No further relevant information available.

• 10.2 Chemical stability

Stable if used and stored according to specifications.

• 10.3 Possibility of hazardous reactions

No dangerous reactions known.

• 10.4 Conditions to avoid

Moisture and water.

• 10.5 Incompatible materials:

No further relevant information available.

• Dangerous reactions

No dangerous reactions known.

• 10.6 Hazardous decomposition products:

Does not decompose when used like intended.

GB

(Contd. on page 5)

PRODUCT : STAUF PUK 447 Component A

(Contd. of page 4)

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity**
- **Primary irritant effect:**
- **Skin corrosion/irritation**
No irritant effect.
- **Serious eye damage/irritation**
Direct contact to eyes can be irritating.
- **Respiratory or skin sensitisation**
No sensitising effects known.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.

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:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:**
Not applicable.
- **vPvB:**
Not applicable.
- **12.7 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
WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04
wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 10
waste adhesives and sealants other than those mentioned in 08 04 09
- **Uncleaned packaging:**
- **Recommendation:**
Disposal must be made according to official regulations.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31



Revision: 07.08.2024

Printing date: 07.08.2024

PRODUCT : STAUF PUK 447 Component A

(Contd. of page 5)

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

SECTION 14: Transport information

- **14.1 UN number or ID number**

ADR	Void
IMDG	Void
IATA	Void
- **14.2 UN proper shipping name**

ADR	Void
IMDG	Void
IATA	Void
- **14.3 Transport hazard class(es)**

ADR	
Class	Void
IMDG	
Class	Void
IATA	
Class	Void
- **14.4 Packing group**

ADR	Void
IMDG	Void
IATA	Void
- **14.5 Environmental hazards:**
Not applicable.
- **14.7 Maritime transport in bulk according to IMO instruments**
Not applicable.

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Waterhazard class:**
Water hazard class 1 (Assessment by list): slightly hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57**
None of the ingredients is listed.
- **Substances of very high concern (SVHC) according to UK REACH**
None of the ingredients is listed.
- **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.

- **Department issuing MSDS:**
quality management
- **Date of previous version:**
13.03.2024
- **Version number of previous version:**

(Contd. on page 7)

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



Printing date: 07.08.2024

Revision: 07.08.2024

PRODUCT : STAUF PUK 447 Component A*(Contd. of page 6)*

1.00

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

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

SECTION 01: Identification of the substance/mixture and of the company/undertaking

- **1.1 Product identifier**
- **Trade name:**
STAUF Hardener 5
- Article number:
124210
- Product Group
Isocyanate hardener
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- Product category
PC1 Adhesives, sealants
- Application of the substance / the preparation
Hardening agent/ Curing agent
- Remark:
Restricted to professional users.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
STAUF Klebstoffwerk GmbH
Oberhausener Strasse 1
57234 Wilnsdorf, Germany
+49-(0)2739-301-0
+49-(0)2739-301-200
- **1.4 Further information obtainable from:**
quality management
QS@stauf.de
- **1.5 Emergency telephone number:**
CARECHEM24- EU, +44 1235 239670
England, +44 1865 407333

SECTION 02: Hazards identification

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



GHS08

Resp. Sens. 1 - H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carc. 2 - H351 Suspected of causing cancer.
STOT RE 2 - H373 May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Tox. 4 - H332 Harmful if inhaled.
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.
STOT SE 3 - H335 May cause respiratory irritation.

- **2.2 Label elements**
- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Revision: 06.10.2020

Printing date: 06.10.2020



PRODUCT : STAUF Hardener 5

(Contd. of page 1)



- GHS08 GHS07
- Signal word
Danger
 - Hazard-determining components of labelling:
methylenediphenyl diisocyanate / diphenylmethanediisocyanate, isomers and homologues / 4,4'-methylenediphenyl diisocyanate
 - Hazard statements
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.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
EUH204 Contains isocyanates. May produce an allergic reaction.
 - Precautionary statements
P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352 IF ON SKIN: Wash with plenty of water.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/ national/international regulations.
 - **2.3 Other hazards**
 - **Results of PBT and vPvB assessment**
 - PBT:
Not applicable.
 - vPvB:
Not applicable.

SECTION 03: Composition/information on ingredients

- **3.2 Mixtures**
 - **Description:**
Mixture of substances listed below with nonhazardous additions.
 - **Dangerous components:**
- | CAS Number | | % |
|------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| 26447-40-5 | <i>methylenediphenyl diisocyanate</i> | 70,00- 85,00 |
| | <i>EC number: 247-714-0</i> | |
| | <i>Record number 01-2119457015-45-0001</i> | |
| | <i>Carc. 2</i> | |
| |  <i>Resp. Sens. 1 - H334, Carc. 2 - H351,</i> | |
| | <i>STOT RE 2 - H373;  <i>Acute Tox. 4 - H332,</i></i> | |
| | <i>Skin Irrit. 2 - H315, Eye Irrit. 2 - H319,</i> | |
| | <i>Skin Sens. 1 - H317, STOT SE 3 - H335</i> | |
| 9016-87-9 | <i>diphenylmethanediisocyanate, isomers and homologues</i> | 12,50- 25,00 |

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31




Revision: 06.10.2020

Printing date: 06.10.2020

PRODUCT : STAUF Hardener 5

(Contd. of page 2)

Carc. 2

 **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**

SECTION 04: 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
In case of unconsciousness place patient stably in side position for transportation.
- **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.
Remove contact lenses, if present and easy to do.
- **After swallowing:**
Do not induce vomiting; call for medical help immediately.
- **Information for doctor:**
- **4.2 Most important symptoms and effects, both acute and delayed**
Headache
Irritation
Coughing
Allergic reactions
- **4.3 Indication of any immediate medical attention and special treatment needed**
Medical supervision for at least 48 hours.
Symptomatic treatment (decontamination, vital functions)

SECTION 05: Firefighting measures

- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen, isocyanate vapors and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.
- **5.3 Advice for firefighters**
No special measures required.
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 06: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Wear protective clothing.
- **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).
Dispose contaminated material as waste according to item 13.

(Contd. on page 4)

PRODUCT : STAUF Hardener 5

(Contd. of page 3)

- Ensure adequate ventilation.
- **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 07: Handling and storage

- **Handling:**
- **7.1 Precautions for safe handling**
Use only in well ventilated areas.
Avoid contact with eyes, skin and clothes.
- **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:**
No special requirements.
- **Information about storage in one common storage facility:**
Not required.
- **Further information about storage conditions:**
Keep container tightly sealed.
Store in dry conditions.
Protect from frost.
Protect from heat and direct sunlight.
- **7.3 Specific end use(s)**
No further relevant information available.

SECTION 08: Exposure controls/personal protection

- **Ingredients with limit values that require monitoring at the workplace**

9016-87-9 *diphenylmethanediisocyanate, isomeres and homologues*

WEL

<i>Short-term value</i>	<i>0,07</i>	<i>mg/m3</i>
<i>Long-term value</i>	<i>0,02</i>	<i>mg/m3</i>
<i>Sen; as -NCO</i>		

101-68-8 *4,4'-methylenediphenyl diisocyanate*

WEL

<i>Short-term value</i>	<i>0.07</i>	<i>mg/m3</i>
<i>Long-term value</i>	<i>0.02</i>	<i>mg/m3</i>
<i>Sen; as -NCO</i>		

- **Ingredients with biological limit values:**

101-68-8 *4,4'-methylenediphenyl diisocyanate*

BMGV

1 µmol creatinine/mol
Medium: urine
Sampling time: At the end of the period of exposure
Parameter: isocyanate-derived diamine

- **Additional information:**
The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31



Revision: 06.10.2020

Printing date: 06.10.2020

PRODUCT : STAUF Hardener 5

(Contd. of page 4)

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

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work, use skin care products.

Keep away from foodstuffs, beverages and feed.

- **Respiratory protection: Not necessary if room is well-ventilated. Use suitable respiratory protective device when high concentrations are present.**
- **Protection of hands: Protective gloves**
 - Material of gloves
 - Butyl rubber, BR
 - Nitrile rubber, NBR
 - Natural rubber, NR
 - 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**
- **Body protection: Protective work clothing**

SECTION 09: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	Brown
Odour:	Characteristic
Odour threshold:	Characteristic
pH-value:	Not determined.

Change in condition

Melting point/freezing point:	< 5 °C
Initial boiling point and boiling range:	> 200 °C
Flash point:	> 300 °C
Flammability (solid, gas):	Not applicable.
Ignition temperature:	400 °C
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Not determined.
Explosive properties:	Not determined.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not determined.
Density:	1,2000 - 1,2400 g/cm ³
Solubility in / Miscibility with water:	reacts s. Point 10
Viscosity:	
Dynamic:	at 25 °C 15 - 35 mPa.s
Solvent content:	
VOC (EC)	0,00 %
9.2 Other information	No further relevant information available.

GB

(Contd. on page 6)

PRODUCT : STAUF Hardener 5

(Contd. of page 5)

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 reaction with amines and alcohols; reacts with water forming CO₂; in closed containers, risk of bursting owing to increase of pressure.
- **10.4 Conditions to avoid**
Protect from heat and direct sunlight.
- **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: >2000 mg/kg (rat)
 Dermal, LD50: >9400 mg/kg (rat)
 Inhalative, LC50/4h: 490 mg/l (rat) (Aerosol)
101-68-8 4,4'-methylenediphenyl diisocyanate
 Oral, LD50: >2000 mg/kg (rat)
 Dermal, LD50: >9400 mg/kg (Rabbit)
 Inhalative, LC50/4h: 0,368 mg/l (rat)
- **Primary irritant effect:**
- Skin corrosion/irritation
Irritant to skin and mucous membranes.
- 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
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Carc. 2

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**
9016-87-9 diphenylmethanediisocyanate, isomeres and homologues
 EC50 48h: >1000 mg/l (daphnie)
 LC50/ 96h: > 1000 mg/l (Brachydanio rerio)
 LC0: >1000 mg/l (fish)
101-68-8 4,4'-methylenediphenyl diisocyanate
 EC50 48h: > 1000 mg/l (daphnie)
 LC50/ 96h: > 1000 mg/l (Brachydanio rerio)
 NOEL/ 72h: >10 mg/l (daphnie)
- **12.2 Persistence and degradability**

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31



Revision: 06.10.2020

Printing date: 06.10.2020

PRODUCT : STAUF Hardener 5*(Contd. of page 6)*

- No further relevant information available.
- **Behaviour in environmental systems:**
- **12.3 Bioaccumulative potential**
No further relevant information available.
- **12.4 Mobility in soil**
No further relevant information available.
- **Additional ecological information:**
- **General notes:**
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**
07
WASTES FROM ORGANIC CHEMICAL PROCESSES
07 02
wastes from the MFSU of plastics, synthetic rubber and man-made fibres
07 02 08
other still bottoms and reaction residues
- **Uncleaned packaging:**
- **Recommendation:**
Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- ADR** Void
- IMDG** Void
- IATA** Void
- **14.2 UN proper shipping name**
- IATA** Void
- **14.3 Transport hazard class(es)**
- ADR**
- Class** Void
- IMDG**
- Class** Void
- IATA**
- Class** Void
- **14.4 Packing group**
- ADR** Void
- IMDG** Void
- IATA** Void
- **14.5 Environmental hazards:**
Not applicable.
- **14.6 Special precautions for user**
Not applicable.

(Contd. on page 8)

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



Revision: 06.10.2020

Printing date: 06.10.2020

PRODUCT : STAUF Hardener 5*(Contd. of page 7)*

- **14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**
Not applicable.

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

- **REGULATION (EC) No 1907/2006 ANNEX XVII**
Conditions of restriction: 3, 56
- **National regulations:**
- **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.

- **Department issuing MSDS:**
quality management
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
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
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
- *** Data compared to the previous version altered.**