

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2011

Version number 28

Revision: 29.04.2011

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

- **Product identifier**
- **Trade name: PROTEGOL UR-Coating 32-55 Comp.B**
- **Article number:** 301664-1
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Polyurethane lacquer
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
TIB Chemicals AG
Mülheimer Str. 16-22
D-68219 Mannheim/Germany
Tel.: +49(0)621-8901-0 Fax: +49(0)621-8901-900
- **Informing department:**
PRODUKTSERVICE
Tel.: +49(0)621 8901 710 Fax.: +49(0)621 8901 936
e-mail: produktservice@tib-chemicals.com
- **Emergency telephone number:**
Telefon Nr.: +49(0)621 8901 700 Telefax Nr.:+49(0)621 8901 900

2 Hazards identification

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



GHS08 health hazard


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.


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

 Xn; Harmful

R20-40-48/20: Harmful by inhalation. Limited evidence of a carcinogenic effect. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

 Xn; Sensitising

R42/43: May cause sensitisation by inhalation and skin contact.

 Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2011

Version number 28

Revision: 29.04.2011

Trade name: PROTEGOL UR-Coating 32-55 Comp.B

(Contd. of page 1)

- **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 was made according to the EC-lists, latest edition, company and literature data have also been used.

- **Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labelling:**

4,4'-diphenylmethanediisocyanate, isomere, homologue and mixtures

- **Hazard statements**

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H335 May cause respiratory irritation.

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

Contains isocyanates. May produce an allergic reaction.

- **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P285 In case of inadequate ventilation wear respiratory 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.

P321 Specific treatment (see on this label).

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

Two component coating: isocyanate component

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below and harmless substances.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2011






Version number 28

Revision: 29.04.2011

Trade name: PROTEGOL UR-Coating 32-55 Comp.B

(Contd. of page 2)

Dangerous components:

9016-87-9	4,4'-diphenylmethanediisocyanate, isomere, homologue and mixtures  Xn R20-40-48/20;  Xn R42/43;  Xi R36/37/38 Carc. Cat. 3 <hr style="border-top: 1px dashed black;"/>  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	75-100%
-----------	--	---------

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

4 First aid measures

- **Description of first aid measures**
- **General information** Remove contaminated clothing.
- **After inhalation**
Supply fresh air and call for doctor for safety reasons.
In case of unconsciousness bring patient into stable side position for transport.
- **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. If symptoms persist, consult doctor.
- **After swallowing** In case of persistent symptoms consult doctor.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
Can be released in case of fire :
 - Nitrogen oxides (NO_x)
 Carbon monoxide (CO)
 Isocyanate gas
 Traces of hydrogen cyanide
- **Advice for firefighters**
- **Protective equipment:** Put on breathing apparatus.
- **Additional information** Cool endangered containers with water spray jet.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material. After a waiting period of approx. 1 hour put it in an open container. Do not close the container, because the formation of carbon dioxide - building up pressure - risk of bursting!
Disposal according item 13 after a storage time of a few days.
Ensure adequate ventilation.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2011

Version number 28

Revision: 29.04.2011

Trade name: PROTEGOL UR-Coating 32-55 Comp.B

(Contd. of page 3)

- **Reference to other sections**
See Section 8 for information on personal protection equipment.

7 Handling and storage

- **Handling**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Store container in a well ventilated position.
Store in cool, dry conditions in well sealed containers.
Keep container tightly sealed.

8 Exposure controls/personal protection

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

- **Components with limit values that require monitoring at the workplace:**

9016-87-9 4,4'-diphenylmethanediisocyanate, isomere, homologue and mixtures

WEL	Short-term value: 0.07 mg/m ³ Long-term value: 0.02 mg/m ³ Sen; as -NCO
-----	---

- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and food.
Take off immediately all contaminated clothing
Wash hands during breaks and at the end of the work.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.
- **Protection of hands:**
Protective gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2011

Version number 28

Revision: 29.04.2011

Trade name: PROTEGOL UR-Coating 32-55 Comp.B

(Contd. of page 4)

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:** Tightly sealed safety glasses.
- **Body protection:** Protective work clothing.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Fluid
Colour:	Brown
Odour:	earthy, musty

- **Change in condition**

Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined

- **Flash point:** 220 °C

- **Ignition temperature:** > 400 °C

- **Self-inflammability:** Product is not selfigniting.

- **Danger of explosion:** Product is not explosive.

- **Vapour pressure at 20 °C:** < 0.00001 mbar

- **Specific gravity at 20 °C:** 1.24 g/cm³

- **Solubility in / Miscibility with**

Water: react with water with formation of carbon dioxide

- **Viscosity:**

dynamic at 25 °C: 90 mPas

10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

- **Possibility of hazardous reactions** Exothermic reaction with amines and alcohols.

- **Hazardous decomposition products:** No dangerous decomposition products known

- **Additional information:**

Two component reaction-plastic: cured with component A the product leads to a high molecular compound and is nearly inert.

GB

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 06.06.2011

Version number 28

Revision: 29.04.2011

Trade name: PROTEGOL UR-Coating 32-55 Comp.B

(Contd. of page 5)

11 Toxicological information

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

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

Oral	LD50	> 15000 mg/kg (Ratte)
Inhalative	LC50/4 h	390 mg/l (Ratte)

9016-87-9 4,4'-diphenylmethanediisocyanate, isomere, homologue and mixtures

Oral	LD50	> 15000 mg/kg (Ratte)
Inhalative	LC50/4 h	390 mg/l (Ratte)

- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Irritant effect.
- **Sensitization:**
 - Sensitization possible by inhalation.
 - Sensitization possible by skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:

Harmful
Irritant

12 Ecological information

- **Toxicity**
- **Acquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **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 bodies or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation** Must be specially treated under adherence to official regulations.

- **European waste catalogue**

08 01 12	waste paint and varnish other than those mentioned in 08 01 11
----------	--

(Contd. on page 7)

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

Printing date 06.06.2011

Version number 28

Revision: 29.04.2011

Trade name: PROTEGOL UR-Coating 32-55 Comp.B

(Contd. of page 6)

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

14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID-GGVS/E Class:** -

- **Maritime transport IMDG:**
- **IMDG Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **UN "Model Regulation":** -
- **Special precautions for user** Not applicable.
- **Transport/Additional information:**
Not dangerous according to the above specifications.
Keep away from humidity
non-resistant to frost

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **National regulations**

Class	Share in %
I	97.0

- **Water hazard class:**
Water hazard class 1 (German Regulation) (Self-classification) : slightly hazardous for water
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained herein 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.
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.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
R20 Harmful by inhalation.

(Contd. on page 8)

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

Printing date 06.06.2011

Version number 28

Revision: 29.04.2011

Trade name: PROTEGOL UR-Coating 32-55 Comp.B

(Contd. of page 7)

R36/37/38 Irritating to eyes, respiratory system and skin.

R40 Limited evidence of a carcinogenic effect.

R42/43 May cause sensitisation by inhalation and skin contact.

R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

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

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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

GB