



# MATERIAL SAFETY DATA SHEET

## Gorilla Glue

### 1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

<b>Product name</b>	Gorilla Glue		
<b>Product type</b>	Polyurethane adhesive		
<b>Intended use</b>	Adhesive for wood, stone metal, ceramic and more		
<b>Supplier</b>	Gorilla Glue Europe A/S Egeskovvej 12 DK-3490 Kvistgaard Denmark Tel: DK: +45 4913 9222 Fax: +45 4913 8041 UK: +44 (0) 844 745 1880 www.gorillatough.co.uk E-mail address: eusales@gorillaglu.com		
<b>Emergency telephone</b>	Gorilla Glue Europe A/S. Tel. +45 4913 9222 The Gorilla Glue Company. Tel. 001 (513) 271-3300		

### 2. HAZARDS IDENTIFICATION

This preparation is classified as harmful. Harmful by inhalation. Irritating to the eyes, respiratory system and skin. Limited evidence of a carcinogenic effect. May cause sensitization by inhalation and skin contact. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Name	EINECS-no	CAS-no	Content	Symbol	R-phrases
Diphenylmethane-diisocyanate, isomers and homologues	-	9016-87-9	45-65 %	Carc. Cat. 3; Xn; Xi;	R40 R20 – 48/20 R36/37/38, R42/43

### 4. FIRST AID MEASURES

**General:** In all cases of doubt, or when symptoms persist, seek medical advice. Bring the Material Safety Data Sheet or label from the bottle. Never give anything by mouth to an unconscious person.



**Inhalation:** Remove to fresh air, keep patient warm and at rest, if breathing is irregular or stopped, administer artificial respiration. Give nothing by mouth. If unconscious place the person in recovery position. Seek medical advice.

**Eye contact:** Flush eyes with water for at least 10 minutes while holding eyelids open. Seek medical advice.

**Skin contact:** Soiled, soaked clothes and shoes must be immediately removed. Wash the skin thoroughly with plenty of water and soap or use a cleanser based on polyethylene glycol. If skin reactions occur, seek medical advice.

**Ingestion:** Wash out mouth with water. If material has been swallowed and the exposed person is conscious; give small quantities of water to drink. Keep at rest. Do not induce vomiting. Medical advice is required.

---

## 5. FIRE-FIGHTING MEASURES

---

**Extinguishing Media:** Carbon dioxide, dry powder, foam. In cases of large scale fires, water spray should be used. If water is used, it should be used in very large quantities. The reaction between water and isocyanate may be vigorous.

**Special hazards:** In case of fire, formation of carbon monoxide, nitrogen oxide, isocyanate vapour, and traces of hydrogen cyanide is possible.

**Protective equipment for fire-fighters:** Fire fighters have to wear full-face, self-contained breathing apparatus and impervious protective clothing.

**Recommendations:** Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Cool closed containers exposed to fire with water, if possible, remove them from the danger area. Do not allow run-off from fire fighting to enter drains or water courses.

---

## 6. ACCIDENTAL RELEASE MEASURES

---

**Personal precaution in spill:** Wear necessary protective equipment (see section 8). Avoid breathing vapours and contact with skin.

**Spill clean up methods:** Remove mechanically. Cover the remainder with wet absorbent material, e.g. sand, earth, vermiculite, diatomaceous earth. After approx. one hour place it all in a container for disposal, according to local regulations (see section 13). Do not seal (evolution of CO<sub>2</sub>). Keep the disposal in a safe ventilated area for several days. Clean preferably with a detergent; avoid use of solvent.

**Environmental precautions:** Do not flush into surface water or sanitary sewer system.

---

## 7. HANDLING AND STORAGE

---

**Handling:** Ensure adequate ventilation or exhaust ventilation in the working area. Exhaust ventilation necessary if product is sprayed. Avoid skin and eye contact. Avoid inhalation of vapour and spray mist.

**Storage:** Keep container tightly closed and dry. Store the product above freezing.



---

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

---

<b>Ingredient name</b>	<b>WEL 8 hrs limit</b>	<b>WEL 15 min limit</b>
diphenylmethane diisocyanate, isomers and homologues	0.02 mg/m <sup>3</sup> , (As NCO)	0.07 mg/m <sup>3</sup> , (As NCO)

**Reference:** EH40-WEL (United Kingdom (UK), 9/2006). **Notes:** As NCO

### Personal protection

**Respiratory protection:** Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended (filter type A).

People who suffer of hypersensitivity of the respiratory tract e.g. asthmatics and those who suffer from chronic bronchitis are unsuited to work with this product.

**Hand protection:** Use protective gloves. Suitable materials for safety gloves:

Polychloroprene-CR:	thickness: >= 0.5mm;	breakthrough time: >= 480 min.
Nitrile rubber-NBR:	thickness: >= 0.35mm;	breakthrough time: >= 480 min.
Butyl rubber-IIR:	thickness: >= 0.5mm;	breakthrough time: >= 480 min.
Fluorinated rubber-FKM:	thickness: >= 0.4mm;	breakthrough time: >= 480 min.

Recommendation: Changed contaminated gloves immediately.

**Skin protection:** Wear suitable protective clothing. Take of immediately all contaminated cloth and shoes.

**Eye protection:** Chemical goggles or full face shields are recommended to protect against splash of liquids.

---

## 9. PHYSICAL AND CHEMICAL PROPERTIES

---

<b>Physical state:</b>	Liquid
<b>Colour:</b>	Dark brown
<b>Odour:</b>	Earthy, musty
<b>Boiling point:</b>	> 300° C
<b>Viscosity (Brookfield):</b>	4.000-7.000 mPa.s (RVT sp. 6 / 20 rpm at 25° C)
<b>Specific gravity:</b>	Approx. 1,14 g/cm <sup>3</sup> at 20° C
<b>Vapour pressure:</b>	21 hPa at 20° C 47 hPa at 50° C



**Flash point:** >250° C  
**Solubility in water:** Insoluble reacts with water

---

## 10. STABILITY AND REACTIVITY

---

**Stability:** No hazardous decomposition products when stored and handled correctly (see section 7).  
Temperatures above 250° C may produce hazardous decomposition products and isocyanate can be released.

**Hazardous reactions:** Exothermic reaction with amines and alcohols. Reacts with water forming CO<sub>2</sub> in closed containers, pressure build-up could result in distortion, expansion and, in extreme cases, bursting of the container.

---

## 11. TOXICOLOGICAL INFORMATION

---

**Acute Toxicity:** LD50 oral, rat: > 5000 mg/kg

**Inhalation:** May cause irritation of the mucous membranes of nose, throat or trachea.

**Skin contact:** Prolonged or repeated contact may result in dermatitis, either irritative or allergic.

**Eye contact:** May result in conjunctiva irritation and mild corneal opacity.

**Special properties/effects:** Overexposure, especially when spraying coatings containing isocyanate without the necessary precautions, entails the risk of concentration - dependent irritating effects on eyes, nose throat, and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible. Hypersensitive persons may suffer from these effects even at low isocyanate concentrations including concentrations below the WEL (exposure limit). In case of longer contact with skin, tanning and irritating effects are possible.

---

## 12. ECOLOGICAL INFORMATION

---

**Biodegradability:** 0 % after 28 days

**Acute fish toxicity:** LC0 = > 1000 mg/l (96 hrs.)

**Toxicity for daphnia:** EC 50 = > 1000 mg/l (24 hrs.)

**Acute bacteria toxicity:** EC50 = > 100 mg/l (3 hrs.)

**Other information:** The product should not be discharged into drains, streams or soil.

---

## 13. DISPOSAL CONSIDERATIONS

---

**Disposal methods:** The product remnants are classified as chemical waste. Dispose of waste according to Local, State, Federal, and Provincial Environmental Regulations.

**(European waste catalogue) EWC-code:** 08 05 01 (waste isocyanates)



---

## 14. TRANSPORT INFORMATION

---

This preparation is not classified dangerous according to international transport regulations ADR/RID/IMDG/IATA.

---

## 15. REGULATORY INFORMATION

---

Labelling in accordance with the EU directives.



**Symbol:**

**Hazard designation:** Xn – harmful.

**Contains:** 4,4'-diphenyl-methanediisocyanate (MDI), isomere

Persons already sensitised to diisocyanates may develop allergic reactions when using this product.

Persons suffering from asthma, eczema or skin problems should void contact, including dermal contact, with this product.

This product should not be used under conditions of poor ventilation unless a protective mask with appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

**R-phrases:** R20 – harmful by inhalation  
R36/37/38 – Irritating to eyes, respiratory system and skin.  
R40 – Limited evidence of a carcinogenic effect.  
R42/43 – May cause sensitization by inhalation and skin contact.  
R48/20 – Harmful: danger of serious damage to health by prolonged exposure through inhalation.

**S-phrases:** S23 – Do not breathe vapour/spray.  
S36/37 – Wear suitable protective clothing and gloves.  
S45 – In case of accident or if you feel unwell, seek medical advice immediately. (show the label where possible).

Any existing national regulations on the handling of isocyanates must be observed.



---

## 16. OTHER INFORMATION

---

**Explanation to R-phrases in section 2:** R20 – harmful by inhalation. R36/37/38 – Irritating to eyes, respiratory system and skin. R40 – Limited evidence of a carcinogenic effect. R42/43 – May cause sensitization by inhalation and skin contact. R48/20 – Harmful: danger of serious damage to health by prolonged exposure through inhalation.

**Revision date:** 11 October 2010

**Previous version:** 24 March 2010

**Signature:** Gorilla Glue Europe A/S

The information of this SDS is based on the present state of our knowledge and on current EU laws. It is always the responsibility of the user to take all necessary steps in order to fulfil the demand laid down in the local rules and legislation. The information in this SDS is meant as a description of the safety requirements of our product. It is not to be considered as a guarantee of the products properties.