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1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 **Product identifier** Product Name Gorilla Glue. Polyurethane Adhesive. Synonym(s) CAS No. Mixture. EINECS No. Mixture. 1.2 Relevant identified uses of the substance or mixture and uses advised against Identified use(s) Consumer Adhesives for building, carpentry, or hobby projects. None known. Uses advised against Details of the supplier of the Safety Data Sheet 1.3 **Company Identification** Gorilla Glue Europe Ltd. Chorley Business & Technology Centre East Terrace Euxton Lane Chorley PR7 6TE, United Kingdom. Telephone 01257 241319 01257 273820 Fax E-mail eusales@gorillaglue.com 1.4 **Emergency telephone number** National Poisons Information Service 111 Emergency Phone No. +44 (0) 1257 241319 (During Business Hours) +1 651-603-3429 (Outside Business Hours)

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP)

	Eye Irrit. 2; Causes serious eye irritation.
	Skin Sens. 1; May cause an allergic skin reaction.
	Resp. Sens. 1; May cause allergy or asthma symptoms or
	breathing difficulties if inhaled.
	Acute Tox. 4; Harmful if inhaled.
	Carc. 2; Suspected of causing cancer.
	STOT SE 3; May cause respiratory irritation.
	STOT RE 2; May cause damage to organs through
	prolonged or repeated exposure.
Label elements	According to Regulation (EC) No. 1272/2008 (CLP)
Product Name	Gorilla Glue.
Hazard pictogram(s)	$\wedge \wedge$
	GHS07 GHS08
Signal word(s)	Danger.

Skin Irrit. 2; Causes skin irritation.

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	Hazardous Ingredient(s)	Aromatic polyisocyanate, Isocyanic acid, polymethylene polyphenylene ester, 4,4'-Methylenediphenyl diisocyanate, Benzene, 1,1'-methylenebisisocyanato-
	Hazard statement(s)	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.
		EUH204: Contains isocyanates. May produce an allergic
		reaction.
	Precautionary statement(s)	P102: Keep out of reach of children.
		P260: Do not breathe mist/vapours/spray.
		P280: Wear protective gloves/protective clothing/eye
		protection/ respiratory protection.
		P302+P352: IF ON SKIN: Wash with plenty of water.
		P304 + P340: IF INHALED: Remove person to fresh air and
		keep comfortable for breathing.
		P305+P351+P338: IF IN EYES: Rinse cautiously with water
		for several minutes. Remove contact lenses, if present and
		easy to do. Continue rinsing.
		P501: Dispose of contents/container in accordance with
		local, regional, national, and international regulations.
2.3	Other hazards	None.

2.4 Additional Information

For full text of H/P Statements see section 16.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

EC Classification No. 1272/2008

Hazardous ingredient(s)	%W/W	CAS No.	EC No.	EC INDEX No.	Classification
Isocyanic acid, polymethylene polyphenylene ester polymer with 1,2- ethanediamine, methyloxirane and 1,2- propanediol	40-70	67815-87-6	None assigned	None assigned	Skin Sens. 1; H317, Resp. Sens. 1; H334, Skin Irrit. 2; H315, Eye Irrit. 2; H319, Acute Tox. 4; H332, STOT SE 3; H335, STOT RE 2; H373
4,4'-Methylenediphenyl diisocyanate	10-30	101-68-8	202-966-0	615-005-00-9	Acute Tox. 4; H332, Skin Irrit. 2; H315, Eye Irrit. 2; H319, Skin Sens. 1; H317, STOT SE 3; H335, Resp. Sens. 1; H334, Carc. 2; H351, STOT RE 2; H373



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					Specific Concentration Limits (C >- 0,1) Resp. Sens. 1; H334, (C >= 5) Eye Irrit. 2; H319, (C >= 5) Skin Irrit. 2; H315, (C >= 5) STOT SE 3; H335
Isocyanic acid, polymethylene polyphenylene ester	10-22	9016-87-9	618-498-9	None assigned	Acute Tox. 2; H330, Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335, Resp. Sens. 1; H334, STOT RE 2; H373
Benzene, 1,1'- methylenebisisocyanato-	1-3	26447-40-5	247-714-0	615-005-00-9	Acute Tox. 4; H332, Skin Irrit. 2; H315, Eye Irrit. 2; H319, Skin Sens. 1; H317, STOT SE 3; H335, Resp. Sens. 1; H334, Carc. 2; H351, STOT RE 2; H373 Specific Concentration Limits $(C \ge 0,1)$ Resp. Sens. 1; H334, $(C \ge 5)$ Eye Irrit. 2; H319, $(C \ge 5)$ Skin Irrit. 2; H315, $(C \ge 5)$ STOT SE 3; H335

3.3 Additional Information

For full text of H/P Statements see section 16.

4. SECTION 4: FIRST AID MEASURES



4.1	Description of first aid measures	
	General information	Do not give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell. (show the label if possible).
	Inhalation	Using proper respiratory protection, immediately move the exposed person to fresh air. Get medical attention immediately.
	Skin Contact	Remove contaminated clothing. Gently wash with plenty of soap and water. Continue to wash the affected area for at least 15 minutes. Call a POISON CENTER/doctor if you feel unwell. Wash contaminated clothing before reuse.
	Eye Contact	Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
	Ingestion	Rinse mouth. Do not induce vomiting. Immediately call a POISON CENTER or doctor/physician.
4.2	Most important symptoms and effects, both acute and delayed	Skin Contact: Causes skin irritation. May produce an allergic reaction. Eve Contact: Causes serious eve irritation.

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Inhalation: Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Ingestion: Likely to be harmful or have adverse effects. Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure. Suspected of causing cancer.

Indication of any immediate medical attention If r and special treatment needed at

If medical advice is needed, have product container or label at hand.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media Suitable Extinguishing Media

Unsuitable Extinguishing Media

- 5.2 Special hazards arising from the substance or mixture
- 5.3 Advice for firefighters

Small fire: Foam, CO2 or dry powder. Large fire: Alcohol-resistant foams. If water is used, it should be used in very large quantities and from a safe distance. Do not use a heavy water stream. Use of heavy stream of water may spread fire. Non-flammable. Non-explosive. The reaction between water and isocyante may be vigorous. Exothermic reaction with amines and alcohols; reacts with water forming heat, CO2, and insoluble polyurea. The combined effects of CO2 and heat can produce enough pressure to rupture a closed container. Exercise caution when fighting any chemical fire. Do not allow runoff to enter drains, sewers or watercourses. Evacuate area. Do not reseal contaminated containers; a chemical reaction generating CO2 gas pressure may occur resulting in rupture of the container. Dense smoke is emitted when product is burned without sufficient oxygen. When using water spray, boil-over may occur when product temperature reaches the boiling point of water, and the reaction forming CO2 will accelerate. Fire fighters should wear proper protective clothing including respiratory protection.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal precautions, protective equipment and emergency procedures	Avoid contact with skin, eyes or clothing. Avoid breathing vapours. Ensure adequate ventilation. Evacuate if necessary. Stop leak if safe to do so. Ensure suitable personal protection during removal of spillages.
6.2	Environmental precautions	Avoid run off to waterways and sewers.
6.3	Methods and material for containment and cleaning up	Clean up spill immediately. Cover spills with inert absorbent material. Remove mechanically but cautiously as this process can generate heat. Absorb remaining liquid in sand or inert absorbent and remove to safe place. After 15 minutes, transfer to waste container and do not seal (evolution of CO2). Keep damp in a safe ventilated area for several days. Dispose of empty containers and wastes safely.
6.4	Reference to other sections	See Also Section: 8, 13

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SECTION 7: HANDLING AND STORAGE

- 7.1 Precautions for safe handling
- 7.2 Conditions for safe storage, including any incompatibilities

Storage Temperature Storage Life Incompatible materials General hygiene measures for the handling of chemicals are applicable. Wash (hands and exposed skin) thoroughly after handling. Do not eat, drink or smoke when using this product. Store in a cool/low-temperature, well-ventilated (dry) place. Keep away from: heat and alcohols, amines or other materials that react with isocyanates. Keep out of reach of children and animals. Keep container closed when not in use. Store locked up. Ambient.

Stable under normal conditions.

Acids, Alkalis, Strong oxidising agents, Amines, Alcohols.

7.3 Specific end use(s)

Consumer Adhesives for building, carpentry, or hobby projects.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters
- 8.1.1 Occupational Exposure Limits

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Isocyanic acid, polymethylene polyphenylene ester polymer with 1,2-ethanediamine, methyloxirane and 1,2- propanediol	67815-87-6					None assigned
4,4'-Methylenediphenyl diisocyanate	101-68-8					None assigned
Isocyanic acid, polymethylene polyphenylene ester	9016-87-9					None assigned
Benzene, 1,1'- methylenebisisocyanato-	26447-40-5					None assigned

8.1.2 Biological limit value

- 8.1.3 PNECs and DNELs
- 8.2 Exposure controls
- 8.2.1 Appropriate engineering controls
- 8.2.2 Personal protection equipment Eye/face protection



Not established.

Not established.

Provide adequate ventilation to ensure that the occupational exposure limit is not exceeded. Guarantee that the eye flushing systems and safety showers are located close to the working place.

Wear protective eyewear (goggles, face shield, or safety glasses).



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Skin protection (Hand protection/ Other)



Respiratory protection



Thermal hazards 8.2.3 Environmental Exposure Controls Wear protective clothing and gloves: Chemically resistant materials and fabrics.

Wear suitable respiratory protective equipment if exposure to levels above the occupational exposure limit is likely.

Not applicable. Avoid run off to waterways and sewers.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical

properties Appearance Colour Odour Odour Threshold pН Melting Point/Freezing Point Initial boiling point and boiling range Flash Point Evaporation rate Flammability (solid, gas) Upper/lower flammability or explosive limits Vapour pressure Vapour density Relative density Density (g/cm3) Solubility(ies) Partition coefficient: n-octanol/water Auto-ignition temperature **Decomposition Temperature** Viscosity Explosive properties Oxidising properties Other information

Liquid. Brown. Earthy, Musty. No data. Not applicable. No data. 208°C (406,40°F) > 93°C (199,4°F) [Closed cup] No data. No data. Not applicable. < 0,0001 mm Hg @ 25°C (Isocyanates) No data. 1,14 (Water = 1) 1,14 @ 20°C Insoluble in water. No data. No data. No data. 4000 - 7000 mPa•s @ 25°C No data. No data. None.

10. SECTION 10: STABILITY AND REACTIVITY

10.1	Reactivity	Exothermic reaction with amines and alcohols; reacts with water forming heat, CO2, and insoluble polyurea.
10.2	Chemical stability	Stable under normal conditions.
10.3	Possibility of hazardous reactions	Hazardous polymerisation will not occur.
		No hazardous reactions known if used for its intended
		purpose.
10.4	Conditions to avoid	Keep away from heat, sources of ignition and direct sunlight.
		Protect from freezing.
10.5	Incompatible materials	Acids, Alkalis, Strong oxidising agents, Amines, Alcohols.
10.6	Hazardous Decomposition Product(s)	Oxides of carbon, MDI vapour, Nitrogen compounds,
		Cvanides, Isocvanates.

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11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1	Information on toxicological effects	
	Acute toxicity	Harmful if inhaled.
		ATE (CLP) (4 hour(s)) = 1500 mg/l
	Oral	Benzene, 1,1'-methylenebisisocyanato-:
		LD50 (rat) = > 7400 mg/kg
	Dermal	Benzene, 1,1'-methylenebisisocyanato-:
		 Benzene, 1,1'-methylenebisisocyanato-: LD50 (rat) = > 7400 mg/kg Benzene, 1,1'-methylenebisisocyanato-: LD50 (rabbit) = > 6200 mg/kg Isocyanic acid, polymethylene polyphenylene ester: LC50 (rat) (4 hour(s)) = 490 mg/m³ Benzene, 1,1'-methylenebisisocyanato-: LC50 (rat) (4 hour(s)) = 0.369 mg/m³ Original Gorilla Glue is composed of both 4,4'- Methylenediphenyl diisocyanate (MDI) and Isocyanic acid, polymethylene polyphenylene ester (PMDI). However, product data has demonstrated that, during consumer use, airborne concentrations of MDI/PMDI were nondetectable. Based on this data, Original Gorilla Glue does not warrant an acute inhalation hazard classification. Causes skin irritation. Causes serious eye irritation.
	Inhalation	Isocyanic acid, polymethylene polyphenylene ester:
		LC50 (rat) (4 hour(s)) = 490 mg/m ³
		Benzene, 1,1'-methylenebisisocyanato-:
		LC50 (rat) (4 hour(s)) = 0.369 mg/m ³
		Original Gorilla Glue is composed of both 4,4'-
		Methylenediphenyl diisocyanate (MDI) and Isocyanic acid,
		polymethylene polyphenylene ester (PMDI). However,
		product data has demonstrated that, during consumer use,
		airborne concentrations of MDI/PMDI were nondetectable.
		Based on this data, Original Gorilla Glue does not warrant
		an acute inhalation hazard classification.
	Skin corrosion/irritation	Causes skin irritation.
	Serious eye damage/irritation	Causes serious eye irritation.
	Respiratory or skin sensitisation	May cause allergy or asthma symptoms or breathing
		difficulties if inhaled. May cause an allergic skin reaction.
	Germ cell mutagenicity	Not classified.
	Carcinogenicity	Suspected of causing cancer.
	Reproductive toxicity	Not classified.
	STOT - single exposure	May cause respiratory irritation.
	STOT - repeated exposure	May cause damage to organs through prolonged or
		repeated exposure.
	Aspiration hazard	Not classified.
11.2	Other information	None.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1	Toxicity	Low toxicity to aquatic organisms.
		Benzene, 1,1'-methylenebisisocyanato-:
		NOEC(Acute)(14 days) = ≥ 1000 mg/kg.
12.2	Persistence and degradability	Biodegradation (0% @ 28 days).
12.3	Bioaccumulative potential	The product has no potential for bioaccumulation.
		Benzene, 1,1'-methylenebisisocyanato-:
		Bioconcentration factor $(BCF)(Fish) = 3 - 14$.
12.4	Mobility in soil	Insoluble in water. The product is predicted to have low mobility in soil.
12.5	Results of PBT and vPvB assessment	No information available.
12.6	Other adverse effects	Avoid release to the environment.

13. SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods
- 13.2 Additional Information

Dispose of wastes in an approved waste disposal facility. Disposal should be in accordance with local, state or national legislation.

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Not applicable.

Not applicable.

Not applicable.

Not applicable. Not applicable.

Not applicable.

Not applicable.

14. SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous for transport.

- 14.1 **UN number**
- 14.2 **UN Proper Shipping Name**
- 14.3 Transport hazard class(es)
- 14.4 **Packing Group**
- 14.5 **Environmental hazards**
- 14.6 Special precautions for user
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

15. SECTION 15: REGULATORY INFORMATION

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture	
15.1.1	EU regulations	
19.1.1	Authorisations and/or restrictions on use	
	Candidate List of Substances of Very High Concern for Authorisation	All chemicals are not listed.
	REACH: ANNEX XIV list of substances subject to authorisation	All chemicals are not listed.
	REACH: Annex XVII Restrictions on the	Gorilla Glue
	manufacture, placing on the market and use of	4,4'-Methylenediphenyl diisocyanate (CAS No.: 101-68-8)
	certain dangerous substances, mixtures and articles	56. Methylenediphenyl diisocyanate (MDI)
		56.a.Methylenediphenyl diisocyanate (MDI) isomers: 4,4'-
		Methylenediphenyl diisocyanate
	Community Rolling Action Plan (CoRAP)	All chemicals are not listed.
15.1.2	National regulations	None known.
15.2	Chemical Safety Assessment	Not applicable.

16. SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 3, 15

LEGEND

LTEL	Long Term Exposure Limit
STEL	Short Term Exposure Limit
DNEL	Derived No Effect Level
PNEC	Predicted No Effect Concentration
PBT	Persistent, Bioaccumulative and Toxic
vPvB	very Persistent and very Bioaccumulative
Eye Irrit. 2	Serious eye damage/irritation Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Acute Tox. 2	Acute toxicity Category 2
Acute Tox. 4	Acute toxicity Category 4
Skin Sens. 1	Respiratory/skin sensitisation Category 1
Resp. Sens. 1	Respiratory/skin sensitisation Category 1
Carc. 2	Carcinogenicity Category 2
STOT SE 3	Specific target organ toxicity — single exposure Category 3
STOT RE 2	Specific target organ toxicity — repeated exposure Category 2



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Hazard statement(s) Causes skin irritation. H315 H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H330 Fatal if inhaled. 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.

Disclaimers

The information presented in this Safety Data Sheet was prepared by qualified personnel and to the best of our knowledge is true and accurate. The information and recommendations are furnished for this product with the understanding that the purchaser will independently determine the suitability of the product for this purpose. This data does not constitute a warranty, expressed or implied, statutory or otherwise, nor is it representation for which The Gorilla Glue Company assumes legal responsibility. The data is submitted for the user's information and consideration only. Any use of this product must be determined by the user to be in accordance with applicable federal, state, provincial and local laws and regulations.

Annex to the extended Safety Data Sheet (eSDS)

Not applicable.