



Safety Data Sheet – Gorilla Epoxy – Hardener

Date issued: 29/12/2014

Version: 1.0

FOR CHEMICAL EMERGENCY

During Business Hours: +44 (0) 1257 241 319 | Outside Business Hours: +44 (0) 800 254 5033

According to Regulation (EC) No. 453/2010

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

1.1. Product identifier

Product Name : Gorilla Epoxy - Hardener

Synonyms : Epoxy Hardener

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Epoxy

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Company

Gorilla Glue Europe A/S

Chorley Business & Technology Centre

East Terrace Euxton Lane

Chorley PR7 6TE

+44 (0) 1257 241319

web: www.gorillatough.com

email: eusales@gorillaglue.com

1.4. Emergency telephone number

Emergency number : During Business Hours: +44 (0) 1257 241 319; Outside Business Hours: +44 (0) 800 254 5033

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Irrit. 2 H315

Eye Dam. 1 H318

Skin Sens. 1 H317

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Xi; R38

R43

Xi; R41

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) : Danger

Hazardous ingredients : Isophorone diamine

Hazard statements (CLP) : H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

Precautionary statements (CLP) : P261 - Avoid breathing mist/vapours/spray.

P280 - Wear eye protection, protective clothing, protective gloves.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.



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- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.
 : EUH205 - Contains epoxy constituents. May produce an allergic reaction.

EUH phrases

2.3. Other Hazards

Other hazards not contributing to the classification : May be corrosive to respiratory tract.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Isophorone diamine	(CAS No) 2855-13-2 (EC no) 220-666-8 (EC index no) 612-067-00-9	7 - 13	Xn; R21/22 C; R34 R43 R52/53
Fatty acids, tall-oil, polymers with bisphenol A, diethylenetriamine, epichlorohydrin and tetraethylenepentamine	(CAS No) 68951-85-9	1 - 10	Xi; R36/38
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Isophorone diamine	(CAS No) 2855-13-2 (EC no) 220-666-8 (EC index no) 612-067-00-9	7 - 13	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Fatty acids, tall-oil, polymers with bisphenol A, diethylenetriamine, epichlorohydrin and tetraethylenepentamine	(CAS No) 68951-85-9	1 - 10	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).
- First-aid measures after inhalation : If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Remove contaminated clothing. Gently wash with plenty of soap and water followed by rinsing with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing for at least 60 minutes. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after 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

- Symptoms/injuries : Causes serious eye damage. Causes skin irritation. Exposure may produce an allergic reaction.
- Symptoms/injuries after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Symptoms/injuries after skin contact : Causes skin irritation. Exposure may produce an allergic reaction.
- Symptoms/injuries after eye contact : Causes serious eye damage.



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Symptoms/injuries after ingestion : Ingestion is likely to be harmful or have adverse effects.

4.3. Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do not use a heavy water stream. Use of heavy stream of water may spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.

Explosion hazard : Product is not explosive.

Reactivity : Isophorone diamine attacks copper, zinc and tin alloys.

5.3. Advice for firefighters

Precautionary measures fire : Exercise caution when fighting any chemical fire.

Firefighting instructions : Do not allow run-off from fire fighting to enter drains or water courses.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not get in eyes, on skin, or on clothing.

6.1.1. For non-emergency personnel

Protective equipment : Use appropriate personal protection equipment (PPE).

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Absorb and/or contain spill with inert material, then place in suitable container.

Methods for cleaning up : Clear up spills immediately and dispose of waste safely.

6.4. Reference to other sections

See Section 8 for Exposure Controls and Personal Protection. See Section 13 for Disposal Consideration.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures. Wash hands, forearms, and exposed areas thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store away from incompatible materials.

Incompatible products : Strong acids, strong bases, strong oxidizers.

7.3. Specific end use(s)

Epoxy

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Isophorone diamine (2855-13-2)		
Derived Effect Levels	DNEL (Short term inhalation; workers; systemic)	20.1 mg/m ³
Derived Effect Levels	DNEL (Short term inhalation; workers; local)	20.1 mg/m ³
Derived Effect Levels	DNEL (Long term oral; consumers; systemic)	0.526 mg/kg bw/day



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Isophorone diamine (2855-13-2)		
Predicted Effect Concentrations	PNEC (Sewage treatment plant; method: assessment factors)	3.18 mg/l
Predicted Effect Concentrations	PNEC (Soil; method: assessment factors)	1.121 mg/kg
Predicted Effect Concentrations	PNEC (PNECintermittent; method: assessment factors)	0.23 mg/l
Predicted Effect Concentrations	PNEC (Marine; method: assessment factors)	0.006 mg/l
Predicted Effect Concentrations	PNEC (Fresh water sediment; method: assessment factors)	5.784 mg/kg
Predicted Effect Concentrations	PNEC (Marine water sediment; method: assessment factors)	0.578 mg/kg
Predicted Effect Concentrations	PNEC (Fresh water; method: assessment factors)	0.06 mg/l

8.2. Exposure controls

Appropriate engineering controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide sufficient ventilation to keep vapors below permissible exposure limit. Ensure all national/local regulations are observed.

Personal protective equipment

: Protective clothing. Safety glasses. Gloves. Insufficient ventilation: wear respiratory protection.



Materials for protective clothing

: Chemically resistant materials and fabrics.

Hand protection

: Wear chemically resistant protective gloves.

Eye protection

: Chemical goggles or safety glasses.

Skin and body protection

: Wear suitable protective clothing.

Respiratory protection

: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Other information

: When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Amber.
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: Not applicable
Relative evaporation rate (butylacetate=1)	: No data available
Melting/Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 93 °C (199,4 °F) Closed Cup
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Solubility	: No data available
Partition coefficient: n-octanol/water	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable



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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Isophorone diamine attacks copper, zinc and tin alloys.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizers.

10.6. Hazardous decomposition products

Decomposition products may include carbon dioxide, carbon monoxide, and/or nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Isophorone diamine (2855-13-2)

LD50 oral rat	1030 mg/kg
ATE CLP (oral)	1030,000 mg/kg bodyweight
ATE CLP (dermal)	1100,000 mg/kg bodyweight

Fatty acids, tall-oil, polymers with bisphenol A, diethylenetriamine, epichlorohydrin and tetraethylenepentamine (68951-85-9)

LD50 dermal rabbit	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	: Causes skin irritation. Conclusion based on OECD 435 <i>In vitro</i> Membrane Barrier Test method for Skin Corrosion.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Isophorone diamine (2855-13-2)

EC50 Daphnia 1	14,6 - 21,5 mg/l (Exposure time: 48 h - Species: Daphnia magna [semi-static])
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12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Isophorone diamine (2855-13-2)

Log Pow	0,79 (at 23 °C)
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available



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12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not regulated for transport

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Gorilla Epoxy - Hardener
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Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Revision date : 29/12/2014

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1



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Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H412	Harmful to aquatic life with long lasting effects
R21/22	Harmful in contact with skin and if swallowed
R34	Causes burns
R36/38	Irritating to eyes and skin
R38	Irritating to skin
R41	Risk of serious damage to eyes
R43	May cause sensitisation by skin contact
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment
C	Corrosive
Xi	Irritant
Xn	Harmful

SDS EU (REACH Annex II)

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.