SAFETY DATA SHEET – Gorilla Epoxy - Hardener

Date Revised: 8/12/2016 Version 1.0

FOR CHEMICAL EMERGENCY:
During Business Hours: (800) 966-3458 | Outside Business Hours: (800) 420-7186

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2015/830

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

1.1 Product identifier

Product Name	Gorilla Epoxy - Hardener.
Synonym(s)	Epoxy Hardener.
CAS No.	Mixture.
EINECS No.	Mixture.

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

Identified use(s)	Epoxy.
Uses advised against	None known.

1.3 Details of the supplier of the Safety Data Sheet

Company Identification	Gorilla Glue Europe Ltd. Chorley Business & Technology Centre East Terrace Euxton Lane Chorley PR7 6TE, United Kingdom.
Telephone	01257 241319
Fax	01257 273820
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)

Skin Irrit. 2; Causes skin irritation.
Skin Sens. 1; May cause an allergic skin reaction.
Eye Dam. 1; Causes serious eye damage.

2.2 Label elements

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

Product Name: Gorilla Expoxy - Hardener.

Hazard pictogram(s):



GHS05 GHS07

Signal word(s): Danger.

Hazardous Ingredient(s): Isophorone diamine.

Hazard statement(s):
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
EUH205: Contains epoxy constituents. May produce an allergic reaction.

Precautionary statement(s)	P102: Keep out of reach of children. P261: Avoid breathing mist/ vapours/ spray. P280: Wear protective gloves/protective clothing/eye protection. 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. 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.
2.3 Other hazards	May cause respiratory irritation.
2.4 Additional Information	For full text of H/P statements see section 16.

Note: *Gorilla Epoxy* contains isophorondiamine CAS No. 2855-13-2 which, according to Annex 1, Table 3.2.3 of CLP carries the H314: corrosive classification. Product level dermal corrosivity testing for Gorilla Epoxy confirms the product is classified as a skin irritant rather than corrosive. Positive results in a valid and accepted skin corrosion test (Corrositex test) classifies the mixture as Non-corrosive utilizing multiple replicate samples indicating highly reproducible results. As a result, the health hazard and transport classification have been changed to reflect the Epoxy results: UN Non-Corrosive and not a GHS Category 1.

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
Isophorone diamine	7-13	2855-13-2	220-666-8	612-067-00-9	Skin Corr. 1B; H314, Acute Tox. 4; H302 (Oral), Acute Tox. 4 (Dermal); H312, Skin Sens. 1; H317, Aquatic Chronic 3; H412
Fatty acids, tall-oil, polymers with bisphenol A, diethylenetriamine, epichlorohydrin and tetraethylenepentamine	3-7	68951-85-9	None assigned	None assigned	Skin Irrit. 2; H315, Eye Irrit. 2; H319

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	Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
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.
Eye Contact: Causes serious eye damage.
Inhalation: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Ingestion: 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.

5. SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media	As 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

Non-flammable. Non-explosive. Reactivity: Isophorone diamine attacks copper, zinc and tin alloys.

5.3 Advice for firefighters

Exercise caution when fighting any chemical fire. Do not allow runoff to enter drains, sewers or

watercourses. 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. Transfer to a container for disposal. Dispose of empty containers and wastes safely.
6.4	**Reference to other sections**	See Also Section: 8, 13

7. SECTION 7: HANDLING AND STORAGE

7.1	**Precautions for safe handling**	General hygiene measures for the handling of chemicals are applicable. Wash (hands and exposed skin) thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product.
7.2	**Conditions for safe storage, including any incompatibilities**	Store in a cool/low-temperature, well-ventilated (dry) place. Keep container closed when not in use. Store away from incompatible materials.
	Storage Temperature	Ambient.
	Storage Life	Stable under normal conditions.
	Incompatible materials	Acids, Alkalis, Strong oxidising agents.
7.3	**Specific end use(s)**	Epoxy.

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/m³)	STEL (ppm)	STEL (mg/m³)	Note
Isophorone diamine	2855-13-2					None assigned
Fatty acids, tall-oil, polymers with bisphenol A, diethylenetriamine, epichlorohydrin and tetraethylenepentamine	68951-85-9					None assigned

8.1.2 Biological limit value Not established.

8.1.3 PNECs and DNELs

DNEL	Oral	Inhalation	Dermal
Workers- Short term - Local effects	-	20,1 mg/m³	-
Workers- Short term - Systemic effects	-	20,1 mg/m³	-
Consumer - Long Term - Systemic effects	0,526 mg/kg bw/day	-	-

	PNEC
Aquatic Compartment	
Fresh water	0,06 mg/l
Sea water	0,006 mg/l
Intermittent release	0,23 mg/l
Sediment - Fresh water	5,784 mg/kg
Sediment - Sea water	0,578 mg/kg
Soil	1,121 mg/kg
Terrestrial Compartment	-
Sewage Treatment Plant	3,18 mg/l
Oral	-
Atmospheric Compartment	-

8.2 Exposure controls

8.2.1 Appropriate engineering controls

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.

8.2.2 Personal protection equipment

Eye/face protection



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

Skin protection (Hand protection/ Other)



Wear protective clothing and gloves: Chemically resistant materials and fabrics.

Respiratory protection



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

Thermal hazards

Not applicable.

8.2.3 Environmental Exposure Controls

Avoid run off to waterways and sewers.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Amber.
Odour	No data.

Odour Threshold	No data.
pH	Not applicable.
Melting Point/Freezing Point	No data.
Initial boiling point and boiling range	No data.
Flash Point	> 93°C (199,4°F) [Closed cup]
Evaporation rate	No data.
Flammability (solid, gas)	No data.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	No data.
Vapour density	No data.
Relative density	No data.
Solubility(ies)	No data.
Partition coefficient: n-octanol/water	No data.
Auto-ignition temperature	No data.
Decomposition Temperature	No data.
Viscosity	No data.
Explosive properties	Not applicable.
Oxidising properties	No data.

9.2 Other information None.

10. SECTION 10: STABILITY AND REACTIVITY

10.1	**Reactivity**	Isophorone diamine attacks copper, zinc and tin alloys.
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 from direct sunlight. Extremely high or low temperatures.
10.5	**Incompatible materials**	Acids, Alkalis, Strong oxidising agents.
10.6	**Hazardous Decomposition Product(s)**	Carbon monoxide, Carbon dioxide, Nitrogen oxides.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Not classified.
Oral	Isophorone diamine: LD50 (rat) = 1030 mg/kg ATE (CLP) = 1030000 mg/kg bw
Dermal	Isophorone diamine: ATE (CLP) = 1100000 mg/kg bw Fatty acids, tall-oil, polymers with bisphenol A, diethylenetriamine, epichlorohydrin and tetraethylenepentamine: LD50 (rabbit) = > 2000 mg/kg LD50 (rat) = > 2000 mg/kg

Skin corrosion/irritation	Causes skin irritation. Conclusion based on OECD 435 In vitro Membrane Barrier Test method for Skin Corrosion.

Gorilla Epoxy contains isophorondiamine CAS No. 2855-13-2 which, according to Annex 1, Table 3.2.3 of CLP carries the H314: corrosive classification. Product level dermal corrosivity testing for Gorilla Epoxy confirms the product is classified as a skin irritant rather than corrosive. Positive results in a valid and accepted skin corrosion test (Corrositex test) classifies the mixture as Non-corrosive utilizing multiple replicate samples indicating highly reproducible results. As a result, the health hazard and transport classification have been changed to reflect the Epoxy results: UN Non-Corrosive and not a GHS Category 1.

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.
STOT - single exposure	Not classified.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.
11.2 Other information	None.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Low toxicity to aquatic organisms. Isophorone diamine: EC50(Daphnia magna)(48 hour) = 14,6 – 21,5 mg/l.
12.2 Persistence and degradability	No information available.
12.3 Bioaccumulative potential	Isophorone diamine: 0,79 @ 23°C Log Pow
12.4 Mobility in soil	No information available.
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	Dispose of wastes in an approved waste disposal facility.
13.2 Additional Information	Disposal should be in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous for transport.

14.1 UN number	Not applicable.
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**	Not applicable.
14.6	**Special precautions for user**	Not applicable.
14.7	**Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.

NOTE: In quantities not to exceed 5kg/5L per single or inner packaging, marine pollutants are not subject to regulation by ground, air, or vessel. See 49 CFR 171.4(c)(2), IATA DGR Special Provision A197, and IMDG Code 2.10.2.7.

15. SECTION 15: REGULATORY INFORMATION

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	
15.1.1	**EU regulations**	
	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 manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Gorilla Epoxy - Hardener 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.
	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, 5, 11, 14, 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
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Eye Dam. 1	Serious eye damage/irritation Category 1
Eye Irrit. 2	Serious eye damage/irritation Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Acute Tox. 4	Acute toxicity Category 4
Skin Sens. 1	Respiratory/skin sensitisation Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment Category 3

Hazard statement(s)

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.

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.