

1.0 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND THE COMPANY/ UNDERTAKING

- 1.1 Product name** GLISS'GRIP *Metal Grip* – PART A (Base)
- Product code** K-GGM-G
- 1.2 Product Use description** BASE for « GLISS'GRIP *Metal Grip* PART B (HARDENER) »
- 1.3 Company**
GLISSGRIP SAS
 50, avenue de la Bourdonnais
 75007 PARIS - FRANCE
 Tél. : +33 (0)1.30.25.84.90 - Fax : +33 (0)1.30.25.84.94

 E-mail : info@glissgrip.fr
- 1.4 Emergency telephone number**
Multilingual emergency number (24/7):
 - Europe/America/Africa : +44 1235 239 (UK)
 - Middle East & Africa speaking Arabic: +44 1235 239 671 (UK)
 - Asia Pacific : +65 3158 1074 (Singapore)
 - China : +86 10 5100 3039 (Beijing)
 - France (ORFILA) : +33 (0)1 45 42 59 59

2.0 HAZARDS IDENTIFICATION

Main Hazards		SGH07
		SGH09
Information about health and environmental hazards	H315+H319 Causes eyes and skin irritation. H317 May cause a skin sensitization. H411 Toxic to aquatic life with long lasting effects. EUH205 Contains epoxy constituents (Average molecular weight <700). May produce an allergic reaction.	

3.0 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical description: Product made of epoxy resins and non hazardous additives.

Information on hazardous ingredients:

CAS no. EINECS no.	%	Description	CLP/GHS	Hazards Pictograms	Hazards categories
25068-38-6	44 - 54	BPA – Epichlorhydrin ; Epoxy resins P.M <700	H315+H319 H317 H411	SGH07 SGH07 SGH09	2 1 1
28064-14-4	17 - 27	BPF - Epichlorhydrin; Epoxy resins P.M <700	H315+H319 H317 H411	SGH07 SGH07 SGH09	2 1 1
68081-84-5	8 – 18	Aliphatic glycidyl ether	H315+H319 H317 H411	SGH07 SGH07 SGH09	2 1 1

4.0 FIRST AID MEASURES**4.1 In case of inhalation:**

No special measures needed. Move person into fresh air.

4.2 In case of contact with skin:

Take off immediately contaminated clothing. Wash the skin with water and soap, for at least 10 minutes.
If irritation persists: consult a doctor/ medical service.

4.3 In case of contact with eyes:

Immediately flush eye with running water, keeping eyelids open, for several minutes.
Seek medical advice in any case.

4.4 In case of ingestion:

Do not induce vomiting. Don't give anything by mouth. Call immediately a doctor. Turn always a person who is vomiting onto the side.

5.0 FIRE-FIGHTING MEASURES**5.1 Suitable extinguishing media:**

Foam, water spray or fog.

5.2 Unsuitable extinguishing media:

Do not use water jet.

5.3 Special hazards arising from the product, its combustion products or its resulting gases:

Not classified as flammable, but may burn.
Toxic gases may be produced in case of incomplete combustion: Carbon Monoxide (CO). Cool containers exposed to fire with water.

5.4 Special equipment for fire fighters:

Complete protective clothing. Appropriate breathing apparatus.

6.0 ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions:**

Wear safety equipment. Keep unprotected persons away.
Avoid contact with skin, eyes or clothing.

6.2 Environmental precautions:

Do not allow product to enter into drains, water courses and ground waters.

6.3 Methods for cleaning up and containment:

Collect using an absorbent material (sand, sawdust etc.).
Place in a suitable container for disposal according to local regulations.

7.0 HANDLING AND STORAGE**7.1 Precautions for safe handling:**

Wear protective clothing, gloves and protection glasses.

7.2 Precautions against fire and explosions:

No special measures required.

7.3 Storage precautions:

Store product in securely closed containers, in a dry and well-ventilated area, between 15 and 25°C. Storage container materials to avoid: none.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION**8.1 Components with occupational limit values:**

The product does not contain a significant quantity of toxic substances, which are over exposure limits in the workplace.

8.2 Protection and hygiene measures:

Keep away from food, drink and animal feed.

8.3 Individual protection measures:

Respiratory protection:	Not required in case of a well-ventilated room.
Hand protection:	Wear protection gloves.
Eye protection:	Wear safety glasses or goggles.
Skin and body protection:	Wear protective clothing.

GLISS'GRIP Metal Grip – PART A (Base)

9.0 PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Translucent white
Odor	Light
Temperature features	Melting point: N.D. Boiling point: >200° C Flash point: >150° C Auto-ignition temperature : >300°C
Solubility in water	Partially soluble
Relative Density	1,13 Kg/m ³ (25°C)

10.0 STABILITY AND REACTIVITY**10.1 Conditions to avoid:**

Caustic products may react violently when exposed to a temperature of about 200°C.

10.2 Materials to avoid:

Strong oxidants.
Caustic soda.

10.3 Hazardous reactions:

Stable under normal condition of use.
Hazardous reactions with amines, acids, bases and oxidant agents.

10.4 Hazardous decomposition products:

Stable under recommended storage conditions.

11.0 TOXICOLOGICAL INFORMATION**11.1 Acute toxicity:**

Determining LD/LC 50 value for classification:

- Oral:	Low acute toxicity, LD50 > 2000 mg/kg
- Dermal :	Low acute toxicity, LD50 > 2000 mg/kg

11.2 Irritation :

- Skin:	May be mildly irritating.
- Eyes:	May be mildly irritating.
- Sensitisation:	Skin Sensitisation.

11.3 Complementary toxicological information :

- Mutagenicity :	Not applicable.
------------------	-----------------

12.0 ECOLOGICAL INFORMATION**Ecotoxicity:**

- Toxicity to fish:	Toxic, 1 < CL/CE/CI 50 ≤ 10 mg/l
- Toxicity to algae:	Toxic, 1 < CL/CE/CI 50 ≤ 10 mg/l
- Acute Toxicity – invertebrates:	Toxic ,1 < CL/CE/CI 50 ≤ 10 mg/l
Mobility in water:	Runs into water.
Mobility in soil:	One or several product components may penetrate the soil and may cause contamination of ground waters.
Effluents :	Practically non-toxic, CL/CE/CI 50 > 100 mg/l

Elimination information (persistence and degradability) :

Biodegradability :	Not easily biodegradable.
Bioaccumulation:	Potentially bioaccumulative.

13.0 DISPOSAL CONSIDERATIONS:**13.1 Product disposal:**

Recycle if possible, if not, incinerate the product. Give the residues to a waste disposal company.

13.2 Containers disposal:

Evacuation according to the local requirements.

14 .0 TRANSPORT INFORMATION**Road transport ADR/RID and GGVS/GGVE:**

Class ADR/RID:	9
Hazard number:	90
UN number:	3082

GLISS'GRIP Metal Grip – PART A (Base)

Code classification:	M6
Packing Group:	III
Hazard Label:	9
Product description:	CLASSIFIED AS HAZARDOUS TO THE ENVIRONMENT, LIQUID, UNSPECIFIED, (EPOXY RESIN, GLYCIDYL ETHER ALIPHATIC)

Sea transport IMDG/GGV sea:

Class:	9
UN number:	3082
Packing Group:	III
Hazard Label:	9
Product description:	CLASSIFIED AS HAZARDOUS TO THE ENVIRONMENT, LIQUID, UNSPECIFIED, (EPOXY RESIN, GLYCIDYL ETHER ALIPHATIC)

Air transport ICAO-TI et IATA-DGR :

Class:	9
UN number:	3082
Packing Group:	III
Hazard label:	9
Product description:	CLASSIFIED AS HAZARDOUS TO THE ENVIRONMENT, LIQUID, UNSPECIFIED, (EPOXY RESIN, GLYCIDYL ETHER ALIPHATIC)

15.0 REGULATORY INFORMATION

15.1 Labelling according to European directives:

Hazard symbols : SGH05 + SGH09 + SGH07

Labelling according to EC: EUH205.CONTAINS EPOXY CONSTITUENTS (AVERAGE MOLECULAR WEIGHT<700). MAY PRODUCE AN ALLERGIC REACTION.

15.2 Hazards statement:

H315+H319	Causes eyes and skin irritation.
H317	May cause a skin sensitisation.
H410	Very toxic to aquatic life with long lasting effects.

15.3 Caution advice:

P262	Do not get in eyes, on skin, or on clothing.
P264	Wash hands thoroughly after handling.
P305+P338+P313+P351	IF IN EYES, rinse cautiously with water for several minutes. Remove contact lenses if present. Continue rinsing. Consult a doctor.
P302+P352	IF ON SKIN, wash immediately with plenty of water and soap.
P321	DO NOT induce vomiting.
P332+P313	In skin irritation occurs, get medical advice.
P280	Wear protective gloves / protective clothing /eye protection /face protection.
P273+P201	Avoid the release to the environment. Obtain special instructions before use.
P501	Dispose of contents/containers in accordance to local or national regulations

16.0 OTHER INFORMATION

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal and is not to be considered a warranty or quality specification.

The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

1.0 IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND THE COMPANY/ UNDERTAKING

1.1 Product name	GLISS'GRIP Metal Grip – PART B (Hardener)
Product code	K-GGM-G
1.2 Product Use description	HARDENER for GLISS'GRIP Metal Grip PART A (BASE) »
1.3 Company	GLISSGRIP SAS 50, avenue de la Bourdonnais 75007 PARIS - FRANCE Tél. : +33 (0)1.30.25.84.90 - Fax : +33 (0)1.30.25.84.94 E-mail : info@glissgrip.fr
1.4 Emergency telephone number	Multilingual emergency number (24/7): - Europe/America/Africa : +44 1235 239 (UK) - Middle East & Africa speaking Arabic: +44 1235 239 671 (UK) - Asia Pacific : +65 3158 1074 (Singapore) - China : +86 10 5100 3039 (Beijing) - France (ORFILA) : +33 (0)1 45 42 59 59

2.0 HAZARDS IDENTIFICATION

Main hazards		SGH05
		SGH09
Information about health and environmental hazards	H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. H314+H318 Causes severe skin burns and serious eye damage. H317 May cause a skin sensitisation. H410 Very toxic to aquatic life with long lasting effects.	

3.0 COMPOSITION / INFORMATION ON INGREDIENTS

Chemical description: cycloaliphatic polyamines. Hardener for epoxides.

Information on hazardous ingredients:

CAS no. EiNECS no.	%	Description	CLP/GHS	Hazards Pictograms	Hazards categories
100-51-6 202-859-9	35 - 40	Benzyl alcohol	H302+H312+H332	SGH07	4
38294-64-3	25 - 30	Modified cycloaliphatic amines	H302+H312+H332 H314+H318 H317 H410	SGH07 SGH05 SGH07 SGH09	4 1 1 1
2855-13-2 220-666-8	25 - 30	Isophorondiamine	H302+H312+H332 H314+H318 H317 H410	SGH07 SGH05 SGH07 SGH09	4 1 1 1

4.0 FIRST AID MEASURES

4.1 In case of inhalation:

Bring a lot of fresh air. Keep at rest. Unconsciousness: lateral position. Call a physician.

4.2 In case of contact with skin:

Immediately remove contaminated clothing and keep it away. Wash with soap and water and rinse skin cautiously. Cover wound with sterile compress. No ointment. Medical attention is required. Keep injured person under observation, at least 24 hours (delayed effects).

4.3 In case of contact with eyes:

Immediately flush eye with plenty of running water, keeping eyelids open, for several minutes. Consult a doctor in any case.

4.4 In case of ingestion:

Do not induce vomiting. Don't give anything by mouth. Don't give anything by mouth. Call immediately a doctor. Turn always a person who is vomiting onto the side.

5.0 FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media:

Foam, water spray or fog, dry powder, CO₂, sand or earth. For larger fire use water spray or alcohol resistant foam.

5.2 Unsuitable extinguishing media:

Do not use water jet.

5.3 Special hazards arising from the product, its combustion products or its resulting gases:

Toxic gases may be produced in case of fore or heating. Carbon Monoxide (CO), nitrogen oxide.

5.4 Special equipment for fire fighters:

Complete protective clothing. Appropriate breathing apparatus.

6.0 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions:

Wear safety equipment. Keep unprotected persons away. Avoid contact with skin, eyes or clothing.

6.2 Environmental precautions:

Do not allow product to enter into drains, water courses and ground waters.

6.3 Methods for cleaning up and containment:

Collect using an absorbent material (sand, sawdust etc.). Place in a suitable container for disposal according to local regulations.

7.0 HANDLING AND STORAGE

7.1 Precautions for safe handling:

Wear protective clothing, gloves and protection glasses. Wear also a respiratory protection with a filter. Ensure there is sufficient ventilation of the area.

7.2 Precautions against fire and explosions:

No special measures required.

7.3 Storage precautions:

Store product in securely closed containers, in a dry and well-ventilated area, between 15 and 25°C. Storage container materials to avoid: none.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 see 7

8.2 Components with occupational exposure limit values:

The product does not contain a significant quantity of toxic substances, which are over exposure limits in the workplace.

8.3 Protection and hygiene measures:

Keep away from food and drink.

8.4 Individual protection measures:

Respiratory protection :	Not required in case of a well-ventilated room.
Hand protection:	Wear protection gloves.
Eye protection:	Wear safety glasses or goggles.
Skin and body protection :	Wear protective clothing.

9.0 PHYSICAL AND CHEMICAL PROPERTIES

Form	Liquid
Color	Translucent white
Odor	Amine-like odor
Temperature features	Melting point: N.D. Boiling point: about 200° C Flash point: about 102° C Auto-ignition temperature : about 250°C
Solubility in water	Partially soluble
pH	12
Vapor pressure (Pa)	< 50 (25°C)
Relative Density	About 1,02 Kg/m ³ (25°C)
Dynamic Viscosity (mPa.s)	600 (25°C)

10.0 STABILITY AND REACTIVITY

10.1 Conditions to avoid:

Avoid water vapor.

10.2 Materials to avoid:

Strong oxidants.
Strong acids.

10.3 Hazardous reactions:

Stable under normal condition of use.
Hygroscopic.

10.4 Hazardous decomposition products:

Stable under recommended storage conditions.

11.0 TOXICOLOGICAL INFORMATION

11.1 Acute toxicity:

Determining LD/LC 50 value for classification:

- Oral:	Moderately toxic, 200 < LD50 ≤ 2000 mg/kg
- Inhalation:	May be moderately toxic, 1 < LC50 ≤ 5 mg/l
- Dermal :	May be moderately toxic, 400 < LD50 ≤ 2000 mg/kg

11.2 Irritation:

- Skin:	Cause severe irritation.
- Eyes:	Corrosive.
- Sensitisation:	Skin Sensitisation.

11.3 Complementary toxicological information:

According to the last regulation on classification of preparations, the product presents the following dangers:

- light toxic
- corrosive

Oral absorption of the product has a strong corrosive effect on the oral cavity, the pharynx and presents a danger of perforating the alimentary canal, including the stomach.

12.0 ECOLOGICAL INFORMATION

Ecotoxicity:

- Toxicity to fish:	Light ly toxic, 10 < CL/CE/CI 50 ≤ 100 mg/l
- Toxicity to algae:	Lightly toxic, 10 < CL/CE/CI 50 ≤ 100 mg/l
- Acute Toxicity – invertebrates:	Lighty toxic, 10 < CL/CE/CI 50 ≤ 100 mg/l
Mobility in water:	Sinks into fresh water but floats on sea water. Partially soluble. A significant percentage remains after one day.
Mobility in soil:	One or several product components may penetrate the soil and may cause contamination of ground waters.
Effluents :	Practically non-toxic, CL/CE/CI 50 > 100 mg/l

Elimination information (persistence and degradability):

Biodegradability:	Not easily biodegradable.
Bioaccumulation:	Not expected to significantly bioaccumulate.

13.0 DISPOSAL CONSIDERATIONS:

13.1 Product disposal:

Send to an incineration facility for toxic waste after treatment according to local or national authorities.

GLISS'GRIP Metal Grip – PART B (Hardener)

13.2 Containers disposal (not cleaned up):

Evacuation according to the local requirements.

14 .0 TRANSPORT INFORMATION

Road transport ADR/RID and GGVS/GGVE:

Class ADR/RID:	8
Hazard number:	80
UN number:	2735
Code classification:	C7
Packing Group:	III
Hazard Label:	8
Product description:	AMINES, LIQUID CORROSIVE, UNSPECIFIED (ISOPHORONDIAMINE, MODIFIED CYCLOALIPHATIC AMINES)

Sea transport IMDG/GGV sea:

Class:	8
UN number:	2735
Packing Group:	III
Hazard Label:	8
Product description:	AMINES, LIQUID CORROSIVE, UNSPECIFIED (ISOPHORONDIAMINE, MODIFIED CYCLOALIPHATIC AMINES)

Air transport ICAO-TI et IATA-DGR :

Class:	8
UN number:	2735
Packing Group:	III
Hazard label:	8
Product description:	AMINES, LIQUID CORROSIVE, UNSPECIFIED (ISOPHORONDIAMINE, MODIFIED CYCLOALIPHATIC AMINES)

15.0 REGULATORY INFORMATION

15.1 Labelling according to European directives:

Hazard symbols : SGH05 + SGH09 + SGH07

Hazardous components for labelling: cycloaliphatic amine, Benzyl alcohol.

15.2 Hazards statement:

H302+H312+H332	Harmful if swallowed, harmful in contact with skin, harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H410	Very toxic to aquatic life with long lasting effects.

15.3 Caution advice:

P305+313	IF IN EYES, rinse cautiously with water for several minutes. Consult a doctor.
P302+P352+P362	IF ON SKIN, wash immediately with plenty of water and soap. Take off contaminated clothing and wash before reuse.
P309+P311	IF EXPOSED or if you feel unwell: call a POISON CENTER or doctor/physician (show product label or this MSDS).
P301+P310+P330+P331	IF SWALLOWED: immediately call a POISON CENTER or doctor. Rinse mouth. DO NOT induce vomiting.
P261	Avoid breathing dust /fume/gas/mist/vapors/spray.
P280	Wear protective gloves / protective clothing /eye protection /face protection.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P420	Store away from other materials.
P273+P501+P201	Avoid release to the environment. Dispose of contents/container to... Obtain special instructions before use.

16.0 OTHER INFORMATION

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal and is not to be considered a warranty or quality specification. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.