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

· 1.1 Product identifier

Trade name: Castropox® 1233 Comp. A

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · Application of the substance / the mixture Epoxy binder
- · 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:

Resinas Castro S.L.

Pol. Ind. A Granxa C/Cíes 190

36400 O Porriño

Tel.: +34 669 75 48 33; +34 986 342 953 Email: <u>info@castrocomposites.com</u>

· Informing department: see section 16

· 1.4 Emergency telephone number:

Poison Control Center Mainz - 24 h - Emergency Call: +49 (0)6131 19240 GB: Regional Medicines and Poisons Information Centre 844 892 0111 AU: National Poisons Information Network (Australia-wide) 131126

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

Skin Irrit. 2 H315 Causes skin irritation.

Eye Dam. 1 H318 Causes serious eye damage.
Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- · 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms







GHS05 GHS07 GHS09

Signal word Danger

· Hazard-determining components of labelling:

reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)

1,4-bis(2,3-epoxypropoxy)butane

· Hazard statements

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves / eye protection / face protection.

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

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

P310 Immediately call a POISONCENTER/doctor.

P321 Specific treatment (see on this label).

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Dispose of contents/container in accordance with local/regional/national/international regulations.

· Additional information:

EUH205 Contains epoxy constituents. May produce an allergic reaction.

- · 2.3 Other hazards
- · Results of PBT and vPvBassessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Chemical characterisation: Mixtures
- Description: Epoxy resin hardening agent, formulation on aliphatic polyamine basis

Dangerous components:		
CAS: 25068-38-6 NLP: 500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)	
Index number: 603-074-00-8 Reg.nr.: 01-2119456619-26-xxxx	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 2425-79-8	1,4-bis(2,3-epoxypropoxy)butane	10-25%
EINECS: 219-371-7 Index number: 603-072-00-7 Reg.nr.: 01-2119494060-45-xxxx	Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Chronic 3, H412	

Additional information For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information Instantly remove any clothing soiled by the product.
- · After inhalation

Take affected persons into the open air and position comfortably

Seek medical treatment in case of complaints.

· After skin contact

Instantly wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

- · After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.
- · After swallowing Seek immediate medical advice.
- · 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

- · Information for doctor No particular measures are known treat according to symptoms.
- 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

- For safety reasons unsuitable extinguishing agents Water with a full water jet.
- 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- 5.3 Advice for firefighters
- · Protective equipment: Put on breathing apparatus.

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· Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- · 6.1 Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- 6.2 Environmental precautions:

Do not allow product to reach sewage system or water bodies.

Do not allow to enter the ground/soil.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of contaminated material as waste according to item 13.

Ensure adequate ventilation.

6.4 Reference to other sections Clean the accident area carefully.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

The usual precautionary measures for handling chemicals must be observed.

Ensure good ventilation/exhaustion at the workplace.

- · Information about protection against explosions and fires: No special measures required.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage
- Requirements to be met by storerooms and containers:

Store only in the original container.

Provide floor trough without outlet.

- Information about storage in one common storage facility: Store away from foodstuffs.
- Further information about storage conditions: Keep container tightly sealed.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- 8.1 Control parameters
- Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

DNELs			
25068-38-			I-A-(epichlorhydrin) epoxy resin (number average
	molecular we	eight = 700)	
Dermal	DNEL - worker	8.3 mg/kg / bw	/d
Inhalative	DNEL - worker	12.3 mg/m³	
2425-79-8	25-79-8 1,4-bis(2,3-epoxypropoxy)butane		
Dermal	DNEL - worker	9.26 mg/kg / bw/d	
Inhalative	DNEL - worker	1.63 mg/m³	
PNECs			
25068-38-	6 reaction prod molecular we		I-A-(epichlorhydrin) epoxy resin (number average
PNEC (predicted no effect concentration) 0.006 mg/l (Frischwasser (freshwater))			
			0.0006 mg/l (Meerwasser (seawater))

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2425-79-8 1,4-bis(2,3-epoxypropoxy)butane

PNEC (predicted no effect concentration) 0.024 mg/l (Frischwasser (freshwater))

0.0024 mg/l (Meerwasser (seawater))

- Additional information: The lists that were valid during the compilation were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment
- · General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Avoid contact with the eyes and skin.

- Breathing equipment: Use breathing protection in case of insufficient ventilation.
- Recommended filter device for short termuse:



Combination filter A-P2

Protection of hands:



Plastic gloves

Only use chemical-protective gloves with CE-labelling of category III.

To minimise the wetness in the glove due to perspiration changing of gloves during a shift is required.

Check the permeability prior to each anewed use of the glove.

Preventive skin protection by use of skin-protecting agents is recommended.

· Material of gloves

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

Recommended thickness of the material: ≥ 0.5 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- · As protection from splashes gloves made of the following materials are suitable: PVC gloves
- · Not suitable are gloves made of the following materials:

Leather gloves

Strong gloves

· Eye protection:



Tightly sealed safety glasses.

· Body protection: Protective workclothing.

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SECTION 9: Physical and chemical properties · 9.1 Information on basic physical and chemical properties · General Information · Appearance: Form: Fluid Colour: Yellowish Odour: Characteristic Change in condition Melting point/freezing point: Not determined Initial boiling point and boiling range: >200 °C >100 °C · Flash point: Self-inflammability: Product is not selfigniting.

Explosive properties: Product is not explosive.
 Vapour pressure at 20 °C: 0.1 hPa
 Density at 23 °C 1.15 g/cm³ (ISO 2811-2)
 Solubility in / Miscibility with Water: Not miscible or difficult to mix

· Viscosity:

dynamic at 25 °C: 790 mPas (ISO 3219)

• 9.2 Other information No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions

Reacts with strong oxidizing agents, alkali, amines and acids

- · 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: strong oxidizing agents
- 10.6 Hazardous decomposition products:

none, if stored and handled correctly.

in the event of fire: toxic gases and vapours

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight = 700)		
Oral	LD50	19,800 mg/kg (rab)
		11,400 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rab)
2425-79	-8 1,4	4-bis(2,3-epoxypropoxy)butane
Oral	LD50	1,134 mg/kg (rat)
Dermal	LD50	>2,150 mg/kg (rab)

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- · Primary irritant effect:
- · Skin corrosion/irritation

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye damage.

· Respiratory or skin sensitisation

May cause an allergic skin reaction.

- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- · Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure Based on available data, the classification criteria are not met.
- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

25068-38-6 reaction product: bisp molecular weight = 70	henol-A-(epichlorhydrin) epoxy resin (number average 0)	
Bakterientoxizität (Bacteria toxicity)	3.6 mg/l (Leuciscus idus) (EC50(96h))	
Daphnientoxizität (Daphnia toxicity)	2.8 mg/l (Daphnia magna (Wasserfloh)) (EC50(48h))	
Algentoxizität (Algae toxicity)	220 mg/l (Alge Scenedesmus sp.) (EC50(96h))	
Fischtoxizität (Fish toxicity)	1.3 mg/l (Fisch (fish)) (LC50(96h))	
2425-79-8 1,4-bis(2,3-epoxypropoxy)butane		
Daphnientoxizität (Daphnia toxicity)	76 mg/l (Daphnia magna (Wasserfloh)) (EC50(24h))	
Algentoxizität (Algae toxicity)	160 mg/l (Pseudokirchnerilla subcapitata) (LC50 (72h))	
Fischtoxizität (Fish toxicity)	18 mg/l (Goldorfe (orfe)) ((96h))	

- 12.2 Persistence and degradability No further relevant information available.
- Other information: The product is slightly biodegradable.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Other information bioaccumulation possible
- · Ecotoxical effects: Not determined
- · Remark: Toxic for fish
- Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Danger to drinking water if even small quantities leak into soil.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

- 12.5 Results of PBT and vPvBassessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

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SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation

For disposal, local regulations issued by the authorities must be observed. Dispose of liquid components at a suitable incineration plant. After curing, the product can be disposed of with household waste.

· European waste catalogue		
	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS	
08 02 00	wastes from MFSU of other coatings (including ceramic materials)	
08 02 99	wastes not otherwise specified	

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

14.1 UN-Number ADR/RID/ADN, IMDG, IATA	UN3082
14.2 UN proper shipping name ADR/RID/ADN	3082 ENVIRONMENTALLY HAZARDO SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
IMDG	ENVIRONMENTALLYĤAŻARDO SUBSTANCE, LIQUID, N.O.S. (epoxy res
IATA	MARINE POLLUTANT E N V I R O N M E N T A L L Y H A Z A R D O SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
14.3 Transport hazard class(es)	
ADR/RID/ADN	
Class	9 (M6) Miscellaneous dangerous substances a articles.
Label	9
IMDG, IATA	
Class	9 Miscellaneous dangerous substances and articles.
Label	9
14.4 Packing group ADR/RID/ADN, IMDG, IATA	III
14.5 Environmental hazards:	Product contains environmentally hazardous substances: epoxy resin

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	(1 0 /
· Marine pollutant:	Yes
	Symbol (fish and tree)
· Special marking (ADR/RID/ADN):	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
· Kemler Number:	90
· EMS Number:	F-A,S-F
Stowage Category	A
· 14.7 Transport in bulk according to Anne	ex II
of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN	
· Excepted quantities (EQ):	E1
· Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000
	ml
Transport category	3
	J
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 1000
	ml
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS
The model Rogalation !	SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN), 9,
	III

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- Seveso category E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- · National regulations

VOC	- EU
0.00	%

- · Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Changes made since last issue dated 11.12.2014 at the following points: *

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· Relevant phrases

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

· Department issuing data specification sheet: Castro Composites Technical Department

· Contact: Alejandro Castro de la Iglesia

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity - Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation - Category 2

Skin Sens. 1: Skin sensitisation - Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

* Data compared to the previous version altered.