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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. B 2
- 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 resin hardening agent
- 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: info@castrocomposites.com
- · 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 Corr. 1B H314 Causes severe skin burns and eye damage.

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

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Aquatic Chronic 3 H412 Harmful 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 GHS08

- · Signal word Danger
- · Hazard-determining components of labelling:

Polyoxypropylenediamine

3-aminomethyl-3,5,5-trimethylcyclohexylamine

2-piperazin-1-ylethylamine

Hazard statements

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dusts or mists.

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Safety data sheet

according to 1907/2006/EC, Article 31

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P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water/shower.

P305+₱351+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.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

· 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: 9046-10-0	Polyoxypropylenediamine	50-100%
Reg.nr.: 01-2119557899-12-xxxx	Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Chronic 3, H412	
CAS: 2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	25-50%
EINECS: 220-666-8 Index number: 612-067-00-9 Reg.nr.: 01-2119514687-32-xxxx	Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1A, H317; Aquatic Chronic 3, H412	
CAS: 140-31-8	2-piperazin-1-ylethylamine	2.5-10%
EINECS: 205-411-0	Acute Tox. 3, H311; Repr. 2, H361; STOT RE 1,	
Index number: 612-105-00-4	H372; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute	
Reg.nr.: 01-2119471486-30-xxxx	Tox. 4, H302; Skin Sens. 1, H317; Aquatic Chronic 3, H412	
CAS: 84852-15-3	4-nonylphenol, branched	<i>≤</i> 2.5%
EINECS: 284-325-5 Index number: 601-053-00-8 Reg.nr.: 01-2119510715-45-xxxx	Repr. 2, H361fd; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); Acute Tox. 4, H302	

[·] 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 Drink copious amounts of water and provide fresh air. Instantly call for doctor.
- 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.

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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 fire fighters
- Protective equipment: Put on breathing apparatus.
- 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

2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

Inhalative DNEL - worker 20.1 mg/m³

140-31-8 2-piperazin-1-ylethylamine

Inhalative DNEL - worker 10.6 mg/m³ (systemisch)

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(Contd. of page 3) 84852-15-3 4-nonylphenol, branched DNEL - worker | 7.5 mg/kg / bw/d Dermal Inhalative DNEL - worker 0.5 mg/m³ · PNECs 9046-10-0 Polyoxypropylenediamine PNEC (predicted no effect concentration) 0.015 mg/l (Frischwasser (freshwater)) 0.0142 mg/l (Meerwasser (seawater)) 3-aminomethyl-3,5,5-trimethylcyclohexylamine PNEC (predicted no effect concentration) 0.06 mg/l (Frischwasser (freshwater)) 0.006 mg/l (Meerwasser (seawater)) 140-31-8 2-piperazin-1-ylethylamine PNEC (predicted no effect concentration) 0.058 mg/l (Frischwasser (freshwater)) 0.0058 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:

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

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.

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

Nitrile rubber, NBR

Fluorocarbon rubber (Viton)

Recommended thickness of the material: ≥ 0.5 mm

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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.

PVC gloves

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.

Value for the permeation: Level ≤ 480 min

- For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:
- · For the permanent contact gloves made of the following materials are suitable: PVC gloves
- For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

PVC gloves

- · 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
- · Eye protection:

Safety glasses

Safety glasses recommended during refilling.

· Body protection: Protective work clothing.

SECT	ION 9: Physical and chemic	cal properties
	rmation on basic physical and cl I Information	hemical properties
Form		Fluid
Color		Blue
Odour:		Amine-like
Meltir	in condition g point/freezing point: boiling point and boiling range:	Not determined > 200 °C
Flash p	oint:	88 °C
Ignition	temperature:	240 °C
Self-inf	lammability:	Product is not selfigniting.
Explosi	ve properties:	Product is not explosive.
Critical Lowe Uppe		0.7 Vol % 5.0 Vol %
Vapour	pressure at 20 °C:	0 hPa
Density	at 23 °C	0.94 g/cm³ (ISO 2811-2)
Solubil Water	ity in / Miscibility with :	Not miscible or difficult to mix
	ty: nic at 25 °C: er information	15 mPas (ISO 3219) No further relevant information available.

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

in the event of fire:

Poisonous gases/vapours

Corrosive gases/vapours

SECTION 11: Toxicological information

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

· LD/LC5	LD/LC50 values that are relevant for classification:		
9046-10	9046-10-0 Polyoxypropylenediamine		
Oral	LD50	2885 mg/kg (rat)	
Dermal	LD50	2980 mg/kg (rab)	
2855-13	-2 3-	aminomethyl-3,5,5-trimethylcyclohexylamine	
Oral	LD50	1030 mg/kg (rat)	
Dermal	LD50	1840 mg/kg (rab)	
		>2000 mg/kg (rat)	
140-31-	8 2-pip	perazin-1-ylethylamine	
Oral	LD50	2097 mg/kg (rab)	
		2140 mg/kg (rat)	
Dermal	LD50	866 mg/kg (rab)	
84852-1	5-3 4-	nonylphenol, branched	
Oral	LD50	1210 mg/kg (rat)	
Dermal	LD50	>2000 mg/kg (rab)	

- Primary irritant effect:
- · Skin corrosion/irritation

Causes severe skin burns and eye damage.

· 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

Suspected of damaging fertility or the unborn child.

- · STOT-single exposure Based on available data, the classification criteria are not met.
- STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure.

· Aspiration hazard Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

· 12.1 Toxicity

A susatio to violet v	
Aquatic toxicity:	
9046-10-0 Polyoxypropylenediamine	
Bakterientoxizität (Bacteria toxicity) (static)	310 mg/l (Belebtschlamm (activated sludge)) (OECD 209)
Daphnientoxizität (Daphnia toxicity)	80 mg/I(Daphnia magna (Wasserfloh)) (EC50(48h))
Algentoxizität (Algae toxicity)	15 mg/I (Pseudokirchnerilla subcapitata) (EC50(72h))
Fischtoxizität (Fish toxicity)	> 15 mg/l (Ochorhyncus mykiss (Regenbogenforelle))(LC50(96h))
2855-13-2 3-aminomethyl-3,5,5-trimethylc	yclohexylamine
Bakterien-Toxizität (Bacteria toxicity)	1120 mg/l (Pseudomonas putida) (EC10(18h))
Daphnientoxizität (Daphnia toxicity)	23 mg/I(Daphnia magna (Wasserfloh)) (EC50(48h))
Algentoxizität (Algae toxicity)	>50 mg/l (Scenedesmus subspicatus) (ErC50(72h))
Fischtoxizität (Fish toxicity)	110 mg/l (Leuciscus idus) (LC50(96h))
140-31-8 2-piperazin-1-ylethylamine	
Bakterientoxizität (Bacteria toxicity) (dynamic	5) 511 mg/l (Nitrifizierende Bakterien (nitrogfix.)) (EC50(2h))
Daphnientoxizität (Daphnia toxicity)	58 mg/I(Daphnia magna (Wasserfloh)) (EC50(48h))
Algentoxizität (Algae toxicity) (static)	>1000 mg/l (Pseudokirchnerilla subcapitata) (EC50(72h))
Fischtoxizität (Fish toxicity)	2190 mg/l (Fisch (fish)) (LC50 (96h))
84852-15-3 4-nonylphenol, branched	
Daphnientoxizität (Daphnia toxicity)	0 .085 mg/ I (Daphnia magna (Wasserfloh)) (EC50(48h))
Fischtoxizität (Fish toxicity)	0.128 mg/l (Pimephales promelas) (LC50(96h))

- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects: Not determined
- · Remark: Harmful to 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.

Harmful to 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.

· Europea	· European waste catalogue		
08 00 00	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.

SECTION 14: Transport informa	tion
· 14.1 UN-Number	
· ADR/RID/ADN, IMDG, IATA	UN2735
14.2 UN proper shipping name	
· ADR/RID/ADN	2735 AMINES, LIQUID, CORROSIVE, N.O.S.
	(Polyoxypropylenediamine)
· IMDG, IATA	AMINES, LIQUID, CORROSIVE, N. O. S
	(Polyoxypropylenediamine)
· 14.3 Transport hazard class(es)	
· ADR/RID/ADN	
<u> </u>	
Class	0 (C7) Corrective authoropes
· Class · Label	8 (C7) Corrosive substances. 8
IMDG, IATA	
15 3k	
8	
· Class	8 Corrosive substances.
· Label	8
· 14.4 Packing group	
· ADR/RID/ADN, IMDG, IATA	III
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Warning: Corrosive substances.
Kemler Number:	80
EMS Number:	F-A,S-B
 Segregation groups Stowage Category 	Alkalis A
· Stowage Category	
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· Segregation Code	SG35 Stow "separated from" acids.
· 14.7 Transport in bulk according to Annex of Marpol and the IBC Code	KII Not applicable.
· Transport/Additional information:	
· ADR/RID/ADN · Excepted quantities (EQ): · Limited quantities (LQ) · Excepted quantities (EQ)	E1 5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category · Tunnel restriction code	3 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEDIAMINE), 8, 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.
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- National regulations

VOC	- EU
<	00 g/l

- · 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 03.02.2017 at the following points: *

Relevant phrases

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

H361 Suspected of damaging fertility or the unborn child.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

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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

Acute Tox. 3: Acute toxicity – Category 3 Skin Corr. 1B: Skin corrosion/irritation – Category 1B Skin Corr. 1C: Skin corrosion/irritation – Category 1C

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

Skin Sens. 1: Skin sensitisation – Category 1 Skin Sens. 1A: Skin sensitisation – Category 1A Repr. 2: Reproductive toxicity – Category 2 Repr. 2: Reproductive toxicity – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

* Data compared to the previous version altered.