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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 3**

· **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.
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

· **Signal word** Danger

· **Hazard-determining components of labelling:**
Polyoxypropylenediamine
3-aminomethyl-3,5,5-trimethylcyclohexylamine

· **Hazard statements**
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H412 Harmful to aquatic life with long lasting effects.

· **Precautionary statements**

P260	Do not breathe dusts or mists.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
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 POISON CENTER/doctor.
P362+P364	Take off contaminated clothing and wash it before reuse.

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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 vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**
· **Description:** Epoxy resin hardener, formulation based on aliphatic polyamines

· **Dangerous components:**

CAS: 9046-10-0 Reg.nr.: 01-2119557899-12-xxxx	Polyoxypropylenediamine Skin Corr. 1C, H314; Eye Dam. 1, H318; Aquatic Chronic 3, H412	35-60%
CAS: 2855-13-2 EINECS: 220-666-8 Reg.nr.: 01-2119514687-32-xxxx	3-aminomethyl-3,5,5-trimethylcyclohexylamine Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Sens. 1A, H317 ATE: LD50 oral: 1,030 mg/kg Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.001 %	35-60%

· **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**
Seek medical treatment in case of complaints.
Supply fresh air and call for doctor for safety reasons.
In case of unconsciousness bring patient into stable side position for transport.
· **After skin contact**
If skin irritation continues, consult a doctor.
Instantly rinse with water.
· **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.
· **Information for doctor** No particular measures are known - treat according to symptoms.
· **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **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**
CO_2, 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 poisonous gases during heating or in fires.
· **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.
Put on breathing apparatus.
· **6.2 Environmental precautions:**
Do not allow to enter the ground/soil.
Do not allow product to reach sewage system or water bodies.
Inform respective authorities in case product reaches water or sewage system.
Dilute with much water.
· **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose of contaminated material as waste according to item 13.
Ensure adequate ventilation.
· **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.
Clean the accident area carefully.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
The usual precautionary measures for handling chemicals must be observed.
Keep containers tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· **Information about protection against explosions and fires:** Keep breathing equipment ready.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage**
· **Requirements to be met by storerooms and containers:**
Store only in the original container.
Keep containers securely closed and dry, store frost-free.
· **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.

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SECTION 8: Exposure controls/personal protection

· **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**		
9046-10-0 Polyoxypropylenediamine		
Dermal	DNEL - worker	2.5 mg/kg / bw/d
Inhalative	DNEL - worker	1.36 mg/m³
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine		
Inhalative	DNEL - worker	0.073 mg/m³

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· **PNECs**	
9046-10-0 Polyoxypropylenediamine	
PNEC (predicted no effect concentration)	0.015 mg/l (Fresh water) 0.0142 mg/l (Seawater)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
PNEC (predicted no effect concentration)	0.06 mg/l (Fresh water) 0.006 mg/l (Seawater)

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**
· **Appropriate engineering controls** No further data; see section 7.
· **Individual protection measures, such as 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.
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 term use:**

Combination filter A-P2

· **Hand protection**

Plastic gloves

Only use chemical protective gloves in accordance with EN ISO 374-1.
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.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
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: $\geq$ 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.
Value for the permeation: Level $\leq$ 480 min
· **For the permanent contact gloves made of the following materials are suitable:**
Nitrile rubber, NBR

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· **For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**
Nitrile rubber (disposable glove)
· **As protection from splashes gloves made of the following materials are suitable:**
Nitrile rubber (disposable glove)
· **Not suitable are gloves made of the following materials:**
Leather gloves
Strong gloves
· **Eye/face protection**
Safety glasses
Safety glasses recommended during refilling.
· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**
· **General Information**

· **Physical state**	Fluid
· **Colour:**	Blue
· **Odour:**	Amine-like
· **Odour threshold:**	Not determined.
· **Melting point/freezing point:**	Not determined
· **Boiling point or initial boiling point and boiling range**	>200 °C
· **Flammability**	Not applicable.
· **Lower and upper explosion limit**	
· **Lower:**	0.7 Vol %
· **Upper:**	5.0 Vol %
· **Flash point:**	>100 °C
· **Auto-ignition temperature:**	240 °C
· **Decomposition temperature:**	Not determined.
· **pH**	Not determined.
· **Viscosity:**	
· **Kinematic viscosity**	Not determined.
· **dynamic at 25 °C:**	13 mPas (ISO 3219)
· **Solubility**	
· **Water:**	Fully miscible
· **Partition coefficient n-octanol/water (log value)**	Not determined.
· **Vapour pressure at 20 °C:**	0 hPa
· **Density and/or relative density**	
· **Density at 23 °C**	0.93 g/cm³ (ISO 2811-2)
· **Relative density**	Not determined.
· **Vapour density**	Not determined.

· **9.2 Other information**
· **Appearance:**

· **Form:**	Fluid
· **Important information on protection of health and environment, and on safety.**	
· **Self-inflammability:**	Product is not selfigniting.
· **Explosive properties:**	Product is not explosive.
· **Change in condition**	
· **Evaporation rate**	Not determined.

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· **Information with regard to physical hazard classes**	
· **Explosives**	Void
· **Flammable gases**	Void
· **Aerosols**	Void
· **Oxidising gases**	Void
· **Gases under pressure**	Void
· **Flammable liquids**	Void
· **Flammable solids**	Void
· **Self-reactive substances and mixtures**	Void
· **Pyrophoric liquids**	Void
· **Pyrophoric solids**	Void
· **Self-heating substances and mixtures**	Void
· **Substances and mixtures, which emit flammable gases in contact with water**	Void
· **Oxidising liquids**	Void
· **Oxidising solids**	Void
· **Organic peroxides**	Void
· **Corrosive to metals**	Void
· **Desensitised explosives**	Void

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

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SECTION 11: Toxicological information

· **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
· **Acute toxicity** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**		
9046-10-0 Polyoxypropylenediamine		
Oral	LD50	2,885 mg/kg (Rat)
Dermal	LD50	2,980 mg/kg (rabbit)
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine		
Oral	LD50	1,030 mg/kg (ATE)
Dermal	LD50	1,840 mg/kg (rabbit)
		>2,000 mg/kg (Rat)

· **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.
· **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.

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· **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.
· **11.2 Information on other hazards**

· **Endocrine disrupting properties**
None of the ingredients is listed.

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SECTION 12: Ecological information

· **12.1 Toxicity**

· **Aquatic toxicity:**	
9046-10-0 Polyoxypropylenediamine	
Bakterientoxizität (Bacteria toxicity) (static)	380 mg/l (Belebtschlamm (activated sludge)) (EC20(3h))
Daphnia toxicity	80 mg/l (Daphnia magna (Wasserfloh)) (EC50(48h))
Algal toxicity	15 mg/l (Pseudokirchnerilla subcapitata) (EC50(72h))
Fish toxicity	>15 mg/l (Oncorhynchus mykiss (Regenbogenforelle)) (LC50(96h))
2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine	
Bacterial toxicity	1,120 mg/l (Pseudomonas putida) (EC10(18h))
Daphnia toxicity	23 mg/l (Daphnia magna (Wasserfloh)) (EC50(48h))
Algal toxicity	>50 mg/l (Scenedesmus subspicatus) (ErC50(72h))
Fish toxicity	110 mg/l (Leuciscus idus) (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.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
· **12.7 Other adverse effects**
· **Ecotoxical effects:** Not determined
· **Remark:** Harmful to fish
· **Additional ecological information:**
· **General notes:**
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Harmful to aquatic organisms
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

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**	
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

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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.
· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

· **14.1 UN number or ID number**
· **ADR/RID/ADN, IMDG, IATA** UN2735

· **14.2 UN proper shipping name**
· **ADR/RID/ADN** 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylenediamine, Isophorondiamin)
· **IMDG, IATA** AMINES, LIQUID, CORROSIVE, N.O.S. (Polyoxypropylenediamine, Isophorondiamin)

· **14.3 Transport hazard class(es)**

· **ADR/RID/ADN**

· **Class** 8 (C7) Corrosive substances.
· **Label** 8

· **IMDG, IATA**

· **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** (SGG18) Alkalis
· **Stowage Category** A
· **Segregation Code** SG35 Stow "separated from" SGG1-acids

· **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

· **Transport/Additional information:**

· **ADR/RID/ADN**
· **Excepted quantities (EQ):** E1
· **Limited quantities (LQ)** 5L

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· **Excepted quantities (EQ)**	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· **Transport category**	3
· **Tunnel restriction code**	E
· **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 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (POLYOXYPROPYLENEDIAMINE, ISOPHORONDIAMIN), 8, III

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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

· **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

· **REGULATION (EU) 2019/1148**

· **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

· **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

· **Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

· **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

· **National regulations**

· **Decree to be applied in case of technical fault:**

VOC	- EU (Decopaint-Directive 2004/42/EC)
0.0	g/l

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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SECTION 16: Other information

· **Reasons for alterations**
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 29.11.2022 at the following points: *

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· **Relevant phrases**
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

· **Department issuing data specification sheet:**
CTP Advanced Materials GmbH
Stahlstrasse 60
D-65428 Rüsselsheim

· **Contact:** SDB-am.de@adityabirla.com

· **Version number of previous version:** 1

· **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 relatif au transport international 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
ATE: Acute toxicity estimate values
Acute Tox. 4: Acute toxicity – Category 4
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
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· *** Data compared to the previous version altered.**