

SAFETY DATA SHEET

RESION Epoxy Super Clear Hardener

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

1.1. Product identifier

Trade name

RESION Epoxy Super Clear Hardener

Product no.

EP214

Unique formula identifier (UFI)

RC30-H093-S000-GGG5

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

Relevant identified uses of the substance or mixture

Epoxy binder

Uses advised against

No special

1.3. Details of the supplier of the safety data sheet

Company and address

Polyestershoppen BV

Oostbaan 680

2841 ML Moordrecht

Netherlands

+31 85 0220090

Contact person

-

E-mail

info@polyestershoppen.nl

Revision

15/06/2022

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service).

See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Acute Tox. 4; H302, Harmful if swallowed.

Acute Tox. 4; H312, Harmful in contact with skin.

Skin Corr. 1B; H314, Causes severe skin burns and eye damage.

Skin Sens. 1; H317, May cause an allergic skin reaction.

Eye Dam. 1; H318, Causes serious eye damage.

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

2.2. Label elements

Hazard pictogram(s)



Signal word

Danger

Hazard statement(s)

- Harmful if swallowed or in contact with skin. (H302+H312)
- Causes severe skin burns and eye damage. (H314)
- May cause an allergic skin reaction. (H317)
- Toxic to aquatic life with long lasting effects. (H411)

Safety statement(s)

General

- If medical advice is needed, have product container or label at hand. (P101)
- Keep out of reach of children. (P102)

Prevention

- Do not breathe vapour/mist. (P260)
- Wear eye protection/protective gloves/protective clothing. (P280)

Response

- IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water . (P303+P361+P353)
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338)

Storage

- Store locked up. (P405)

Disposal

- Dispose of contents/container to an approved waste disposal plant. (P501)

Hazardous substances

- Propylidyntrimethanol, propoxylated, reaction products with ammonia
- 3-aminomethyl-3,5,5-trimethylcyclohexylamine

2.3. Other hazards

Additional labelling

Not applicable

Additional warnings

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
Propylidyntrimethanol, propoxylated, reaction products with ammonia	CAS No.: 39423-51-3 EC No.: 500-105-6 REACH: Index No.:	60-80%	Acute Tox. 4, H302 Acute Tox. 4, H312 Eye Dam. 1, H318 Aquatic Chronic 2, H411	
3-aminomethyl-3,5,5-trimethylcyclohexylamine	CAS No.: 2855-13-2 EC No.: 220-666-8	25-40%	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317	

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

REACH:

Aquatic Chronic 3, H412

Index No.: 612-067-00-9

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

No special

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

Upon irritation of the eye: Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing during transport.

Ingestion

In the case of ingestion, contact a doctor immediately. If the person is conscious, give them water. DO NOT try to induce vomiting, unless this is recommended by a doctor. Hold head facing down to prevent vomit returning mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

Burns

Not applicable

4.2. Most important symptoms and effects, both acute and delayed

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Sensitisation: This product contains substances, which may trigger allergic reaction upon dermal contact.

Manifestation of allergic reactions typically takes place within 12-72 hours after exposure.

4.3. Indication of any immediate medical attention and special treatment needed

IF exposed or concerned:

Get immediate medical advice/attention.

Information to medics

Bring this safety data sheet or the label from this product.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers,

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Nitrogen oxides (NO_x)

Carbon oxides (CO / CO₂).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid direct contact with spilled substances.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities.

6.3. Methods and material for containment and cleaning up

Use sand, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

To the extent possible cleaning is performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 on "Disposal considerations" in regard of handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

It is recommended to install waste collection trays in order to prevent emissions to the waste water system and surrounding environment.

Avoid direct contact with the product.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage material

Keep only in original packaging.

Storage temperature

Dry, cool and well ventilated

Incompatible materials

Strong acids

Strong oxidizing agents

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No substances are listed in the national list of substances with an occupational exposure limit.

DNEL

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

No data available

PNEC

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Route of exposure	Duration of Exposure	PNEC
Freshwater		0.06 mg/l
Freshwater sediment		5.784 mg/kg
Marine water		.006 mg/l
Marine water sediment		0.578 mg/kg
Soil		1.121 mg/kg

Propylidynetrimethanol, propoxylated, reaction products with ammonia

Route of exposure	Duration of Exposure	PNEC
Freshwater	Single	0,044 mg/L
Freshwater sediment	Single	0,02 mg/kg
Intermittent release	Single	0,044 mg/L
Marine water	Single	0,00044 mg/L
Marine water sediment	Single	0,002 mg/kg

8.2. Exposure controls

Control is unnecessary if the product is used as intended.

General recommendations

Smoking, drinking and consumption of food is not allowed in the work area.

Exposure scenarios

There are no exposure scenarios implemented for this product.

Exposure limits

Occupational exposure limits have not been defined for the substances in this product.

Appropriate technical measures

Apply standard precautions during use of the product. Avoid inhalation of vapours.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep damming materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment

Generally

Use only UKCA marked protective equipment.

Respiratory Equipment

Type	Class	Colour	Standards
Respiratory protection is not needed in the event of adequate ventilation	-	-	-

Skin protection

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Recommended	Type/Category	Standards
Dedicated work clothing should be worn.	-	-



Hand protection

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards
Nitrile	0,2	> 240	EN374-2, EN374-3, EN388



Eye protection

Type	Standards
Safety glasses with side shields.	EN166



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

Liquid

Colour

Clear

Odour / Odour threshold

Ammonia odor

pH

Testing not relevant or not possible due to nature of the product.

Density (g/cm³)

0.96

Kinematic viscosity

Testing not relevant or not possible due to nature of the product.

Particle characteristics

Does not apply to liquids.

Phase changes

Melting point/Freezing point (°C)

Testing not relevant or not possible due to nature of the product.

Softening point/range (waxes and pastes) (°C)

Does not apply to liquids.

Boiling point (°C)

Testing not relevant or not possible due to nature of the product.

Vapour pressure

Testing not relevant or not possible due to nature of the product.

Relative vapour density

Testing not relevant or not possible due to nature of the product.

Decomposition temperature (°C)

Testing not relevant or not possible due to nature of the product.

Data on fire and explosion hazards

Flash point (°C)

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

>100

Ignition (°C)

Testing not relevant or not possible due to nature of the product.

Auto flammability (°C)

Testing not relevant or not possible due to nature of the product.

Lower and upper explosion limit (% v/v)

Testing not relevant or not possible due to nature of the product.

Solubility

Solubility in water

Testing not relevant or not possible due to nature of the product.

n-octanol/water coefficient

Testing not relevant or not possible due to nature of the product.

Solubility in fat (g/L)

Testing not relevant or not possible due to nature of the product.

9.2. Other information

Other physical and chemical parameters

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

10.3. Possibility of hazardous reactions

No special

10.4. Conditions to avoid

No special

10.5. Incompatible materials

Strong acids

Strong oxidizing agents

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Rat
Route of exposure	Oral
Test	LD50
Result	1030 mg/kg
Other information	

Harmful if swallowed.

Harmful in contact with skin.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Skin corrosion/irritation

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	

Causes severe skin burns and eye damage.

Serious eye damage/irritation

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Rabbit
Duration	No data available.
Result	Adverse effect observed (Corrosive)
Other information	

Causes serious eye damage.

Respiratory sensitisation

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

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.

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

Long term effects

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

Endocrine disrupting properties

No special

Other information

No special

SECTION 12: Ecological information

12.1. Toxicity

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Product/substance	Propylidynetrimethanol, propoxylated, reaction products with ammonia
Test method	
Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	>100 mg/kg
Other information	
Product/substance	Propylidynetrimethanol, propoxylated, reaction products with ammonia
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	13 mg/L
Other information	
Product/substance	Propylidynetrimethanol, propoxylated, reaction products with ammonia
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	4,4 mg/L
Other information	
Product/substance	Propylidynetrimethanol, propoxylated, reaction products with ammonia
Test method	
Species	Algae
Compartment	
Duration	
Test	NOEC
Result	1 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Species	Fish
Compartment	
Duration	96 hours
Test	LC50
Result	110 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Daphnia
Compartment	
Duration	48 hours
Test	EC50
Result	23 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Algae
Compartment	
Duration	72 hours
Test	EC50
Result	>50 mg/L
Other information	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Species	Daphnia
Compartment	
Duration	21 days
Test	NOEC
Result	3 mg/L
Other information	

12.2. Persistence and degradability

Product/substance	Propylidynetrimethanol, propoxylated, reaction products with ammonia
Biodegradable	No

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

Test method	
Result	
Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Biodegradable	No
Test method	
Result	

12.3. Bioaccumulative potential

Product/substance	3-aminomethyl-3,5,5-trimethylcyclohexylamine
Test method	
Potential bioaccumulation	No
LogPow	0,99
BCF	No data available
Other information	

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Endocrine disrupting properties

No special

12.7. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.

This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

HP 6 - Acute toxicity

HP 8 - Corrosive

HP 13 - Sensitising

HP 14 - Ecotoxic

Dispose of contents/container to an approved waste disposal plant.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

EWC code

07 02 99 Wastes not otherwise specified

Specific labelling






Not applicable

Contaminated packing

Packaging containing residues of the product must be disposed of similarly to the product.

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

SECTION 14: Transport information

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information
ADR	UN2735	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Propylidynetrimethanol, propoxylated, reaction products with ammonia, 3- aminomethyl-3,5,5-trimethylcyclohexylamine)	Class: 8 Labels: 8 Classification code: C7  	III	Yes	Limited quantities: 5 L Tunnel restriction code: (E) See below for additional information.
IMDG	UN2735	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Propylidynetrimethanol, propoxylated, reaction products with ammonia, 3- aminomethyl-3,5,5-trimethylcyclohexylamine)	Class: 8 Labels: 8 Classification code: C7  	III	Yes	Limited quantities: 5 L EmS: F-A S-B See below for additional information.
IATA	UN2735	POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Propylidynetrimethanol, propoxylated, reaction products with ammonia, 3- aminomethyl-3,5,5-trimethylcyclohexylamine)	Class: 8 Labels: 8 Classification code: C7 	III	Yes	See below for additional information.

* Packing group

** Environmental hazards

Additional information

ADR / See Table A, Section 3.2.1 for any information on special provisions, requirements, or warnings in connection with transport. See section 5.4.3, for instructions in writing regarding mitigation of damages in relation to incidents or accidents during transport.

IMDG / See the Dangerous Goods List, section 3.2.1, for any information on special provisions, requirements, or warnings in connection with transport.

IATA / See Table 4.2 for any information on special provisions, requirements, or warnings in connection with transport.

This product is within scope of the regulations of transport of dangerous goods.

14.6. Special precautions for user

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions for application

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

People under the age of 18 shall not be exposed to this product.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

No specific requirements

SEVESO - Categories / dangerous substances

E2 - ENVIRONMENTAL HAZARDS, Qualifying quantity (lower-tier): 200 tonnes / (upper-tier): 500 tonnes

Additional information

Tactile warning.

If this product is sold in retail, it must be delivered with child-resistant fastening.

Sources

The Management of Health and Safety at Work Regulations 1999

The Health and Safety at Work etc. Act 1974 Regulations 2013.

Control of Major Accident Hazards (COMAH) Regulations 2015.

Regulation (EU) No 1357/2014 of 18 December 2014 on waste as retained and amended in UK law.

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP) as retained and amended in UK law.

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as retained and amended in UK law.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H302, Harmful if swallowed.

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.

H411, Toxic to aquatic life with long lasting effects.

H412, Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CE = Conformité Européenne

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

CSA = Chemical Safety Assessment

CSR = Chemical Safety Report

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EINECS = European Inventory of Existing Commercial chemical Substances

ES = Exposure Scenario

EUH statement = CLP-specific Hazard statement

EWG = European Waste Catalogue

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IARC = International Agency for Research on Cancer (IARC)

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

According to EC-Regulation 1907/2006 (REACH), annex II, including changes implemented by EC-Regulation 2020/878

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

OECD = Organisation for Economic Co-operation and Development

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail

RRN = REACH Registration Number

SCL = A specific concentration limit

SVHC = Substances of Very High Concern

STOT-RE = Specific Target Organ Toxicity - Repeated Exposure

STOT-SE = Specific Target Organ Toxicity - Single Exposure

TWA = Time weighted average

UN = United Nations

UVBC = Unknown or variable composition, complex reaction products or of biological materials

VOC = Volatile Organic Compound

vPvB = Very Persistent and Very Bioaccumulative

Additional information

The classification of the substance/mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The classification of the substance/mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

The safety data sheet is validated by

H.A.B.

Other

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

Country-language: GB-en