

SAFETY DATA SHEET

RESION BPO Paste Hardener

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

1.1. Product identifier

Trade name

RESION BPO Paste Hardener

Product no.

PR92

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

Relevant identified uses of the substance or mixture

Curing agent for resins

Use descriptors (REACH)

Sectors of use	Description
LCS "C"	Consumer uses: Private households (= general public = consumers)
LCS "IS"	Industrial uses: Uses of substances as such or in preparations at industrial sites
LCS "PW"	Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU 12	Manufacture of plastics products, including compounding and conversion
SU 19	Building and construction work
Product category	Description
PC 32	Polymer Preparations and Compounds
Process category	Description
PROC 19	Hand-mixing with intimate contact and only PPE available
Article category	Description
AC 13	Plastic articles
Environmental release category	Description
ERC 5	Industrial use resulting in inclusion into or onto a matrix
ERC 8c	Wide dispersive indoor use resulting in inclusion into or onto a matrix
ERC 8f	Wide dispersive outdoor use resulting in inclusion into or onto a matrix

Uses advised against

None known.

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

31/08/2023

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

Classified according to Regulation (EC) No. 1272/2008 (CLP) as retained and amended in UK law.

2.1. Classification of the substance or mixture

Self-react. F; H242, Heating may cause a fire.
Skin Sens. 1; H317, May cause an allergic skin reaction.
Eye Irrit. 2; H319, Causes serious eye irritation.
Aquatic Chronic 3; H412, Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictogram(s)



Signal word

Warning

Hazard statement(s)

Heating may cause a fire. (H242)
May cause an allergic skin reaction. (H317)
Causes serious eye irritation. (H319)
Harmful to aquatic life with long lasting effects. (H412)

Precautionary statement(s)

General

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

Prevention

Avoid breathing mist/vapour. (P261)
Wear eye protection/protective gloves/protective clothing. (P280)

Response

IF ON SKIN: Wash with plenty of water and soap. (P302+P352)
If skin irritation or rash occurs: Get medical advice/attention. (P333+P313)

Storage

Store in a well-ventilated place. Keep cool. (P403+P235)

Disposal

Dispose of contents/container in accordance with local regulation (P501)

Hazardous substances

dibenzoyl peroxide; benzoyl peroxide

Additional labelling

Not applicable.

2.3. Other hazards

Additional warnings

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

This product does not contain any substances considered to be endocrine disruptors in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable. This product is a mixture.

3.2. Mixtures

Product/substance	Identifiers	% w/w	Classification	Note
dibenzoyl peroxide;benzoyl peroxide	CAS No.: 94-36-0 EC No.: 202-327-6 UK-REACH: Index No.: 617-008-00-0	25-40%	Org. Perox. B, H241 Skin Sens. 1, H317 Eye Irrit. 2, H319	
Nonylbenzoate, branched and linear	CAS No.: 670241-72-2 EC No.: 447-010-5 UK-REACH: Index No.:	15-25%	Aquatic Chronic 2, H411	[19]
Oxirane, 2-methyl-, polymer with oxirane, monobutyl ether	CAS No.: 9038-95-3 EC No.: 618-542-7 UK-REACH: Index No.:	5-10%	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319	

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

Other information

[19] UVCB = Unknown or variable composition, complex reaction products or of biological materials

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

IF ON SKIN: Wash with plenty of water and soap.

Remove contaminated clothing and shoes. Ensure to wash exposed skin thoroughly with water and soap. DO NOT use solvents or thinners.

If skin irritation occurs: Get medical advice/attention.

Eye contact

If in eyes: Flush eyes immediately with plenty of water or isotonic water (20-30 °C) for at least 5 minutes and continue until irritation stops. Remove contact lenses. Make sure to flush under upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

Burns

Rinse with water until pain stops then continue to rinse for 30 minutes.

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

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 skin irritation or rash occurs: Get 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, 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:

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

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

Avoid direct contact with spilled substances.

Ensure adequate ventilation, especially in confined areas.

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

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

6.4. Reference to other sections

See section 13 "Disposal considerations" on 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.

Ground and bond container and receiving equipment.

Peroxide formation may be present anywhere in the container, including the sides, bottom, exterior and threaded cap. Peroxide formation in ppm concentrations may not be visually observable and must be identified through the use of appropriate testing procedures. If any of the following conditions exist, the material may be explosively unstable and will require stabilization prior to use:

1. Material appears to be degraded and or contaminated.
2. Material appears to be discolored.
3. Deterioration or distortion of storage container.
4. Thermal shock (sunlight).

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

5. Age of material exceeds recommended storage time.
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

Store in tightly closed containers and store protected from moisture and light. Containers should be dated when opened and tested periodically for the presence of peroxides. Do not exceed storage time limits. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Recommended storage material

Keep only in original packaging.

Storage temperature

Dry, cool and well ventilated
Protect from sunlight.

Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing 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

dibenzoyl peroxide;benzoyl peroxide
Long term exposure limit (8 hours) (mg/m³): 5

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677 The Stationery Office 2002. EH40/2005 Workplace exposure limits (Fourth Edition 2020).

DNEL

dibenzoyl peroxide;benzoyl peroxide

Duration:	Route of exposure:	DNEL:
Long term – Local effects - Workers	Dermal	34 µg/cm ²
Long term – Systemic effects - Workers	Dermal	13.3 mg/kg bw/day
Long term – Systemic effects - Workers	Inhalation	39 mg/m ³
Long term – Systemic effects - General population	Oral	2 mg/kg bw/day

Nonylbenzoate, branched and linear

Duration:	Route of exposure:	DNEL:
Long term – Systemic effects - General population	Dermal	1.5 mg/kg bw/day
Long term – Systemic effects - Workers	Dermal	7.8 mg/kg bw/day
Long term – Systemic effects - General population	Inhalation	1.43 mg/m ³
Long term – Systemic effects - Workers	Inhalation	14.9 mg/m ³
Long term – Systemic effects - General population	Oral	1.5 mg/kg bw/day

PNEC

dibenzoyl peroxide;benzoyl peroxide

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		20 ng/L
Freshwater sediment		12.7 µg/kg
Intermittent release (freshwater)		602 ng/L
Marine water		2 ng/L
Marine water sediment		1.27 µg/kg

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

Sewage treatment plant	350 µg/L
Soil	2.5 µg/kg

Nonylbenzoate, branched and linear

Route of exposure:	Duration of Exposure:	PNEC:
Freshwater		4.3 µg/L
Freshwater sediment		2.724 mg/kg
Marine water		430 ng/L
Marine water sediment		272.4 µg/kg
Predators		66.7 mg/kg
Sewage treatment plant		10 mg/L
Soil		320 µg/kg

8.2. Exposure controls

Compliance with the given occupational exposure limits values should be controlled on a regular basis.

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

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Ground and bond container and receiving equipment.

The formation of vapours must be kept at a minimum and below current limit values (see above). Installation of a local exhaust system if normal air flow in the work room is not sufficient is recommended. Ensure eyewash and emergency showers are clearly marked.

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
No special when used as intended.			

Skin protection

No specific requirements.

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

Paste

Colour

White, Red

Odour / Odour threshold

Characteristic

pH

6

Density (g/cm³)

1.15

Kinematic viscosity

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

Dynamic viscosity

20000 mPa.s (20 °C)

Particle characteristics

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

Phase changes

Melting point/Freezing point (°C)

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

Boiling point (°C)

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

Vapour pressure

1 hPa

Relative vapour density

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

Decomposition temperature (°C)

50

Data on fire and explosion hazards

Flash point (°C)

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

Flammability (°C)

The material is ignitable.

Auto-ignition temperature (°C)

370

Lower and upper explosion limit (% v/v)

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

Solubility

Solubility in water

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

n-octanol/water coefficient

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

Solubility in fat (g/L)

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

9.2. Other information

Other physical and chemical parameters

No data available.

Oxidizing properties

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

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

None known.

10.4. Conditions to avoid

Extremes of temperature

Sunlight

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing 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

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

Skin corrosion/irritation

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

Serious eye damage/irritation

Causes serious eye irritation.

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

Irritation effects: This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs.

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

Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

Endocrine disrupting properties

Not applicable.

Other information

dibenzoyl peroxide;benzoyl peroxide has been classified by IARC as a group 3 carcinogen.

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

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

Not applicable.

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 3 - Flammable

HP 4 - Irritant (skin irritation and eye damage)

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

Not applicable.

Contaminated packing



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

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	UN3108	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide;benzoyl peroxide)	Transport hazard class: 5.2 Label: 5.2 Classification code: P1	-	No	Limited quantities: 500 g Tunnel restriction code: (D) See below for additional information.



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

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
IMDG	UN3108	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide;benzoyl peroxide)	Transport hazard class: 5.2 Label: 5.2 Classification code: P1 	-	No	Limited quantities: 500 g EmS: F-J S-R See below for additional information.
IATA	UN3108	ORGANIC PEROXIDE TYPE E, SOLID (dibenzoyl peroxide;benzoyl peroxide)	Transport hazard class: 5.2 Label: 5.2 Classification code: P1 	-	No	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 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

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

Demands for specific education

No specific requirements.

SEVESO - Categories / dangerous substances

P6b - SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES, Qualifying quantity (lower-tier): 50 tonnes / (upper-tier): 200 tonnes

Additional information

Not applicable.

Sources

The Management of Health and Safety at Work Regulations 1999.

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

H241, Heating may cause a fire or explosion.
H302, Harmful if swallowed.
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

The full text of identified uses as mentioned in section 1

LCS "C" = Consumer uses: Private households (= general public = consumers)
LCS "IS" = Industrial uses: Uses of substances as such or in preparations at industrial sites
LCS "PW" = Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU 12 = Manufacture of plastics products, including compounding and conversion
SU 19 = Building and construction work
PROC 19 = Hand-mixing with intimate contact and only PPE available
PC 32 = Polymer Preparations and Compounds
AC 13 = Plastic articles
ERC 5 = Industrial use resulting in inclusion into or onto a matrix
ERC 8c = Wide dispersive indoor use resulting in inclusion into or onto a matrix
ERC 8f = Wide dispersive outdoor use resulting in inclusion into or onto a matrix

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 (European conformity)
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
EWC = 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
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

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

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 classification of the mixture in regard to physical hazards has been based on experimental data.

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