

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

1.1. Product identifier

Product name: rbs PGI - Resin

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

Use of substance / mixture: Chemical Resistant Coating for Concrete.

1.3. Details of the supplier of the safety data sheet

Company name: Resapol Ltd
Unit D4
Moss Industrial Estate
Leigh
WN7 3PT
United Kingdom

Tel: 01942 609 001

Email: info@resapol.com

1.4. Emergency telephone number

Emergency tel: 01942 609 002

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CHIP: Xi: R37; Sens.: R43

Most important adverse effects: Irritating to respiratory system. May cause sensitisation by skin contact.

2.2. Label elements

Label elements under CHIP:

Hazard symbols: Irritant.



Risk phrases: R37: Irritating to respiratory system.

R43: May cause sensitisation by skin contact.

Safety phrases: S24: Avoid contact with skin.

S37: Wear suitable gloves.

Precautionary phrases: Contains tertiary butyl catechol. May produce an allergic reaction.

SAFETY DATA SHEET

rbs PGI - Resin

Page: 2

2.3. Other hazards

PBT: This substance is not identified as a PBT substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

ETHYLENE DIMETHACRYLATE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
202-617-2	97-90-5	Xi: R37; Sens.: R43	-	2-30%

2-HYDROXYL PROPYL METHACRYLATE - REACH registered number(s): 01-2119400226-37

213-090-3	27813-02-1	Xi: R36; Sens.: R43	-	2-30%
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DIISOPROPANOL-P-TOLUIDINE

254-075-1	38668-48-3	T: R25; Xi: R36; -: R52/53	-	2-30%
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TERTIARY BUTYL CATECHOL

202-653-9	98-29-3	Xn: R21/22; C: R34; Sens.: R43; N: R51/53	-	<1%
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Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes.

Ingestion: Wash out mouth with water. Do not induce vomiting.

Inhalation: Consult a doctor. Remove casualty from exposure ensuring one's own safety whilst doing so.

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

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: No symptoms.

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

Immediate / special treatment: Remove contaminated clothing

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Alcohol or polymer foam. Dry chemical powder. Carbon dioxide. Do not use water.

[cont...]

SAFETY DATA SHEET

rbs PGI - Resin

Page: 3

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to section 8 of SDS for personal protection details. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Ensure there is sufficient ventilation of the area.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed. Protect from Direct Sunlight Do not allow temperature to exceed 30 Degree C

Suitable packaging: Must only be kept in original packaging. Steel drums. Polyethylene.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

Workplace exposure limits: Not applicable.

8.2. Exposure controls

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

[cont...]

SAFETY DATA SHEET

rbs PGI - Resin

Page: 4

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Yellow

Solubility in water: Insoluble

Viscosity: Highly viscous

Boiling point/range°C: >35

Flash point°C: >93

Part.coeff. n-octanol/water: 2.3

Vapour pressure: <1.3 hPa

Relative density: 1.1

9.2. Other information

Other information: viscosity = 260 cps

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may occur on exposure to conditions or materials listed below.

Polymerisation may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids. Peroxides Heavy Metal ions

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Relevant effects for mixture:

Effect	Route	Basis
Irritation	INH	Hazardous: calculated

[cont...]

SAFETY DATA SHEET

rbs PGI - Resin

Page: 5

Sensitisation	DRM	Hazardous: calculated
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Symptoms / routes of exposure

Skin contact: There may be mild irritation at the site of contact.

Eye contact: There may be irritation and redness.

Ingestion: There may be irritation of the throat.

Inhalation: No symptoms.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: Not applicable.

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This substance is not identified as a PBT substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal of packaging: May be reused following decontamination.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

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

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

[cont...]

SAFETY DATA SHEET

rbs PGI - Resin

Page: 6

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and 3: R21/22: Harmful in contact with skin and if swallowed.

R25: Toxic if swallowed.

R34: Causes burns.

R36: Irritating to eyes.

R37: Irritating to respiratory system.

R43: May cause sensitisation by skin contact.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above



SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Name of the preparation: Dibenzoyl Peroxide

Product names: rbs PGi - Hardener

Intended use: Initiator for unsaturated polyester resin. Industrial and professional use.

Company: Resapol Ltd

Address: Unit D4
Moss Industrial Estate
Leigh
WN7 3PT

Telephone: 01942 609 001

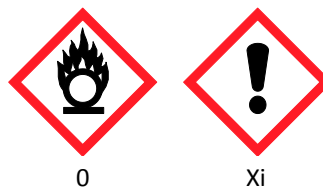
Information about the Safety Data Sheet:

info@resapol.com

Emergency telephone: 01942 609 001 or National Poison Centre.

2. HAZARDOUS IDENTIFICATION

EC



Danger classification: O - Oxidizing
Xi - Irritating

R phrases:

R-7 May cause fire
R-36/38 Irritating to eyes and skin
R-43 May cause sensitization by skin contact

S phrases:

S-3/7 Keep container tightly closed in a cool place.
S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S-50 Do not mix with accelerators, reducing agents, strong acids, alkalis and heavy metal compounds.
S-62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Last Changed: 13 Jan 2013
Replaces: 9 February 2012

Dibenzoyl Peroxide
EC 1907/2006

I (7)
Version 2:4

3. COMPOSITION/INFORMATION ON INGREDIENTS

No	Component	EC-no	CAS-no	Cone.% w/w
1	Dibenzoyl Peroxide	202-327-6	94-36-0	39-41
2	c9-II alkylbenzoate	421-090-1	1 31298-44-7	42-43
3	Water	-	7732-18-5	1 1-13
4	Amorphous Hydrophobic Silicon Dioxide	238-878-4	68909-20-6	2-3
5	Zinc Stearate	209-151-9	557-05-01	1-2

No	Components/Registration number	Classification CLP	Classification I<:C
1	Dibenzoyl Peroxide	Organic Peroxide Type B eye irritation 2, Skin scns. 1 H241, H317, 1-1319	E, Xi / 3, 7, 36, 43
2	c9-II alkylbenzoate	Skin irritation, Eye irritation, H315, H319	Xi/ R36/38
3	Water	None	None
4	Amorphous Hydrophobic Silicon Dioxide	May cause damage to organs through prolonged or repeated exposure through inhalation, H373	Xn/ R48/20
5	Zinc Stearate	May cause respiratory irritation, H335	Xi/ R37

See also section 16.

4. FIRST AID MEASURES

General: In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Inhalation: Remove to fresh air. Seek medical attention if coughing, breathing becomes labored, irritation develops or other symptoms develop.

Skin contact: Remove contaminated clothing. Wash skin thoroughly with soap and water. Skin contact may cause an allergic reaction.

Eye contact: Flush eyes with water for at least 15 minutes holding the eyelids apart. If irritation symptoms develop seek medical advice. Eye contact may cause serious irritation.

Ingestion: If accidentally swallowed obtain immediate medical attention. Keep at rest. Drink water or milk, and **DO NOT** induce vomiting.

5. FIRE-FIGHTING MEASURES

General information: This peroxide burn vigorously with acceleration. Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Fire hazard increases when material becomes dry. Caution: Reigniting may occur.

Recommended extinguishing media: Water spray from a safe distance, preferably with a water-fog nozzle. For very small fires, an extinguisher with carbon dioxide, foam or dry chemical may be effective. In case of a fire in or near a storage area, cool stored containers with water spray.

Unsuitable extinguishing media: Water jet.

Recommendations: Wear resistant protective clothing and foot wear. Appropriate breathing apparatus may be required. Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or watercourses.

Decomposition products see section 10.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid skin and eye contact. Wear personal protection equipment recommended in section 8.

Environmental precautions: Clean up residue or small spills immediately. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.

Methods and material for cleaning up: Transfer the material into a clean approved container for proper disposal. Wet the material with water. Wash the contaminated zone.

Further information: Avoid sources of ignition and ventilate the area.

7. HANDLING AND STORAGE

Handling:

Precautions for safe handling: Provide adequate ventilation. Keep containers tightly closed when not in use. Avoid skin and eye contact. Wear personal protection equipment recommended in section 8. Do not use near food or drink. Wash the hands thoroughly after handling or contact.

Precautions against fire and explosions: Isolate from sources of heat, sparks and open flame. No sparking tools should be used. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Use clean equipment and tools of inert material such as stainless steel, polyethylene, polypropylene, glass. All equipment should be earthed. Dilution is not recommended. Never dilute with acetone.

Storage:

Store in accordance with local regulations. Store in original package, in cool, well ventilated place away from sources of heat, fires, sparks and direct sunlight. For maximum shelf life we recommend to store the product at temperatures not higher than 25°C. At higher temperatures the shelf life will be reduced. For safety reasons the storage temperature should not exceed 35°C. The product should not be stored below 0°C. Rotate stock using the oldest material first. Prevent unauthorized access.

A void storage of incompatible materials: The product must never be stored together with accelerators such as dryers, heavy metal compounds etc. A void contact with rust. Keep away from sources of ignition. Keep away from oxidizing agents, from strongly alkaline and strongly acid materials.

Further information for storage: Store in original package. Rotate stock using the oldest material first. If material dries out immediately soak with water. Prevent unauthorized access.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Exposure Limits:

Component	CAS-no.	ACGIH / Tyoe
Dibenzoyl Peroxide	94-36-0	5 mgim'/TWA

TWA= Time Waited Average

General protection and hygiene measures: Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Do not eat or drink when handling.

Personal Protection equipment:

Respiratory protection: If airborne concentrations are expected rear gas mask with filter A (brown, organic substances) or positive pressure self-contained breathing apparatus.

Hand protection: Use resistant gloves of: butyl rubber, neoprene.

Eye protection: Use safety eyewear or goggles. Emergency eye rinsing equipment is recommended.

Skin protection: Wear antistatic clothing made of natural fibre or of high temperature resistant synthetic fibre. All parts of the body should be washed after contact.

Further information: Observe the information in section 7.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	white liquid with slight ester odor
Flash point (°C)	N/A
Boiling point (oc)	N/A
pH	N/A
Density (g/cm 3)	1.2 at 25°C
Vapor pressure mm H"	N/A
Vapor density (Air=1)	N/A
Flammable limits	N/A
% volatile bv volume	N/A
Evaporation rate	N/A
Solubility in water	Negligible
SADT(oc)	>50

10. STABILITY AND REACTIVITY

Stability: Stable when kept in original, closed container, out of direct sunlight at temperatures below 35°C. SADT (Self accelerating decomposition temperature) > 50 °C. Contact with incompatible material may cause decomposition below SADT. Decomposition of product due to heat or contamination may lead to fire or strong explosions.

Conditions to avoid: Temperatures over 25°C and storage in direct sunlight. The product should not be stored below 0 °C. Containment in stainless steel equipment (tanks, vessels, pipes etc). Water loss (drying).

Materials to avoid: Incompatible materials such as acids, strong bases, tert-amines, Friedel-Crafts catalysts, heavy metals, cobalt accelerators or other peroxide accelerators or promoters, rust, brass, galvanized steel, acetone, reducing or oxidizing agents, grinding dust and dirt.

Decomposition and combustion products: Dense white smoke of benzoic acid; phenyl benzoate; terphenyls; biphenyls: benzene and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

General information:

Skin contact: Skin contact may cause an allergic reaction. Repeated or prolonged contact with the product may lead to removal of natural fats from the skin resulting in contact dermatitis and absorption through the skin.

Eyes contact: Eye contact may cause serious irritation.

Inhalation: Inhalation might cause cough, headache and irritation of the respiratory-system.

Ingestion: The major components in this product are low toxic by ingestion. Although, if ingested contact a physician, hospital or Poison Control Center at once. DO NOT INDUCE VOMITING.

Sensitizing: May cause sensitization by skin contact.

Toxicological tests:

Dibenzoyl Peroxide:

Oral (rat) LD-50 7710 mg/kg Oral

(mouse) LD-50 5700 mg/kg

Intaperitoncal (mouse) LD50 250 mg/kg

Skin (mammal) LD-50 >1 g/kg

C9• 11 Branched Alkyl Benzoate:

Oral (rat) LD-50 >5000 mg/kg

Amorphous Hydrophobic Silicon Dioxide:

Oral (rat) LD-50 >5000 mg/kg
 Inhalation (rat) LD-50 > 0,09 mg/1 (4h), < 0,84 mg/1 (4h)

Zink Stearate:

Oral (rat) LD-50 >10 g/kg
 Oral (mouse) LD-50 >10 g/kg
 Intraperitoneal (mouse) LD50 354 mg/kg
 Inhalation (mammal) LC > 1241 mg/m3 (4h)

12. ECOLOGICAL INFORMATION

The product should be prevented from entering drains, sewers, streams, etc.

Dibenzoyl Peroxide:

Fish acute toxicity, LC50 (96h) 2,0 mg/1
 Bacteria EC50 35 mg/1
 Aquatic plants EC50 (72h) 0,44 mg/1
 Degradation Biotic: Readily biodegradable (closed bottle test)

13. OISPOSAL CONSIDERATIONS

Product: Do not allow into drains or water courses. Product waste is considered as dangerous waste and should be disposed in accordance to local regulations.

Contaminated packaging: Emptied containers should be handled as dangerous waste according to local regulations. The producer recommends destruction of both peroxide rests and empty packaging by combustion under controlled forms.

14, TRANSPORT INFORMATION

Land transport, ADR:

UN number: 3109
 Class: 5.2
 Classification code: PI
 Proper shipping name: Organic Peroxide Type F, Liquid, (Dibenzoyl Peroxide::: 42%)
 Tunnel code: I)
 Label: 5.2

Sea transport, IMDG:

UN number: 3109
 Class: 5.2
 Packing group: II
 Proper shipping name: Organic Peroxide Type F, Liquid, (Dibenzoyl Peroxide :S 42%) 5.2
 Label: F-.1, S-R
 EMS: No
 Marine pollutant:

Air transport, IATA-DGR:

UN number: 3109
 Class: 5.2
 Packing group: II
 Proper shipping name: Organic Peroxide Type F, Liquid, (Dibenzoyl Peroxide :S 42%) Label: 5.2

15. REGULATORY INFORMATION

Regulatory information:

Substance listed in 96/82/EC, Organic Peroxide, 0 Oxidizing, Xi - Irritating.

National regulations: National regulation must be observed. **Other**

international regulations: Listed on or in accordance to: DSL

	Canada
JECSC	China
EINECS	Europe
ECL	Korea
TSCA	USA

16. OTHER INFORMATION

In addition from section 3:

R-3 Extreme risk of explosion by shock, friction, fire or other sources of ignition
 R-7 May cause fire
 R-36 Irritating to eyes.
 R37 Irritating to respiratory system
 R-36/38 Irritating to eyes and skin
 R-43 May cause sensitization by skin contact.
 R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation
 H241 Heating may cause a fire or explosion
 H315 Causes skin irritation
 H317 May cause an allergic skin reaction
 H319 Causes serious eye irritation
 H335 May cause respiratory irritation
 H373 May cause damage to organs through prolonged or repeated exposure through inhalation

Version 2:4

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Changes made: Section 14 Changed transport classification of the product to UN31 09.

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Dibenzoyl Peroxide

EC 1907/2006

7(7)

Version 2:4