

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

1.1. Product identifier

Product form : Mixture
Product name : BPO HARDENER (RED)
Type of product : Hardener
Product group : BPO Hardener

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only
Function or use category : Hardener (Crosslinker)

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

U-POL LIMITED
Denington Road, Wellingborough
Northants
NN8 2QH - UK
T +44 (0) 1933 230310 - F +44 (0) 1933 425797
technical.department@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : +44 (0) 1933 230310 (07:30 - 17:00hrs UK time)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Org. Perox. EF H242
Eye Irrit. 2 H319
Skin Sens. 1 H317
Aquatic Acute 1 H400

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Warning

Hazardous ingredients :

dibenzoyl peroxide, benzoyl peroxide

Hazard statements (CLP) :

H242 - Heating may cause a fire
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
H400 - Very toxic to aquatic life

Precautionary statements (CLP) :

P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P280 - Wear eye protection, protective clothing, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P305 - IF IN EYES: Wash with plenty of water and if necessary take medical advice
P411+P235 - Store at temperatures not exceeding 30°C. Keep cool
P501 - Dispose of contents/container to hazardous or special waste collection point, in

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accordance with local, regional, national and/or international regulation

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
dibenzoyl peroxide, benzoyl peroxide	(CAS No) 94-36-0 (EC no) 202-327-6 (EC index no) 617-008-00-0	43 - 63	E; R3 O; R7 Xi; R36 R43

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
dibenzoyl peroxide, benzoyl peroxide	(CAS No) 94-36-0 (EC no) 202-327-6 (EC index no) 617-008-00-0	43 - 63	Org. Perox. B, H241 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Acute 1, H400

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. If skin irritation or rash occurs: Wash with plenty of soap and water. Get medical advice/attention. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Symptoms/injuries after inhalation	: May cause an allergic skin reaction.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Carbon monoxide. Carbon dioxide. Benzene.
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5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.
Other information	: Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas receptacles to rupture. Cool endangered receptacles with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems.

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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Gloves.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Do not allow to dry.
Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.
Other information : Ensure adequate ventilation.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing fume, vapours. Take precautions against electrostatic charges.
Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Ignition sources, Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking, Heat sources, Keep only in original container. Keep container closed when not in use.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight. combustible materials.
Storage temperature : < 30 °C
Storage area : Store in a well-ventilated place.
Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

dibenzoyl peroxide, benzoyl peroxide (94-36-0)		
United Kingdom	Local name	Dibenzoyl peroxide
United Kingdom	WEL TWA (mg/m ³)	5 mg/m ³

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.
Materials for protective clothing : Impermeable clothing
Hand protection : Wear protective gloves
Eye protection : Chemical goggles or safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended
Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

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Appearance	: Paste.
Colour	: Various.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: May cause fire
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: $\approx 1.1 \text{ g/cm}^3$
Solubility	: insoluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

SADT	: 50 °C
VOC content	: 0 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Heating may cause a fire. SADT.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. Benzene.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met

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Specific target organ toxicity (single exposure)	: Not classified Based on available data, the classification criteria are not met
Specific target organ toxicity (repeated exposure)	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life.

12.2. Persistence and degradability

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Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: 3108
UN-No. (IMDG)	: 3108
UN-No. (IATA)	: 3108
UN-No. (ADN)	: 3108
UN-No. (RID)	: 3108

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ORGANIC PEROXIDE TYPE E, SOLID
Proper Shipping Name (IMDG)	: ORGANIC PEROXIDE TYPE E, SOLID
Proper Shipping Name (IATA)	: Organic peroxide type e, solid
Proper Shipping Name (ADN)	: ORGANIC PEROXIDE TYPE E, SOLID
Proper Shipping Name (RID)	: ORGANIC PEROXIDE TYPE E, SOLID
Transport document description (ADR)	: UN 3108 ORGANIC PEROXIDE TYPE E, SOLID, 5.2, (D), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 3108 ORGANIC PEROXIDE TYPE E, SOLID, 5.2, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 5.2
Danger labels (ADR)	: 5.2

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IMDG

Transport hazard class(es) (IMDG) : 5.2

Danger labels (IMDG) : 5.2



IATA

Transport hazard class(es) (IATA) : 5.2

Hazard labels (IATA) : 5.2



ADN

Transport hazard class(es) (ADN) : 5.2

Danger labels (ADN) : 5.2



RID

Transport hazard class(es) (RID) : 5.2

Danger labels (RID) : 5.2



14.4. Packing group

Packing group (ADR) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

Packing group (ADN) : Not applicable

Packing group (RID) : Not applicable

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

14.6. Special precautions for user

14.6.1. Overland transport

Classification code (ADR) : P1

Special provisions (ADR) : 122, 274

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Limited quantities (ADR)	: 500g
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P520
Mixed packing provisions (ADR)	: MP4
Transport category (ADR)	: 2
Special provisions for carriage - Packages (ADR)	: V1
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV15, CV22, CV24
Tunnel restriction code (ADR)	: D
EAC code	: 1W

14.6.2. Transport by sea

Special provisions (IMDG)	: 122, 274
Limited quantities (IMDG)	: 500 g
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P520
EmS-No. (Fire)	: F-J
EmS-No. (Spillage)	: S-R
Stowage category (IMDG)	: D
Stowage and segregation (IMDG)	: Protected from sources of heat 'Separated from' acids and alkalis.
Properties and observations (IMDG)	: Decomposes at elevated temperatures or in a fire. Burns vigorously. Insoluble in water. Contact with the eyes and skin should be avoided. May evolve irritant or toxic fumes.

14.6.3. Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: 570
PCA max net quantity (IATA)	: 10kg
CAO packing instructions (IATA)	: 570
CAO max net quantity (IATA)	: 25kg
Special provisions (IATA)	: A20
ERG code (IATA)	: 5L

14.6.4. Inland waterway transport

Classification code (ADN)	: P1
Special provisions (ADN)	: 122, 274
Limited quantities (ADN)	: 500 g
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0
Carriage prohibited (ADN)	: No
Not subject to ADN	: No

14.6.5. Rail transport

Classification code (RID)	: P1
Special provisions (RID)	: 122, 274
Limited quantities (RID)	: 500g
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P520
Mixed packing provisions (RID)	: MP4
Transport category (RID)	: 2
Special provisions for carriage – Packages (RID)	: W7
Special provisions for carriage - Loading, unloading and handling (RID)	: CW22, CW24, CW29
Colis express (express parcels) (RID)	: CE10
Hazard identification number (RID)	: 539
Carriage prohibited (RID)	: No

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 0 g/l

Seveso Information : This product is subject to the Seveso Directive

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of R-, H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Org. Perox. B	Organic Peroxides, Type B
Org. Perox. EF	Organic Peroxides, Type E,F
Skin Sens. 1	Sensitisation — Skin, Category 1
H241	Heating may cause a fire or explosion
H242	Heating may cause a fire
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H400	Very toxic to aquatic life

UPOL SDS EU (no product code)

For professional use only.

The information contained within this Safety Data Sheet (SDS) is believed to be correct as of the date issued however it is subject to change from time to time. It does not purport to be all inclusive or exhaustive and shall only be used as a guide. U-POL makes no warranties, expressed or implied, including but not limited to, any implied warranty of fitness for a given purpose or usage. It is the Buyers responsibility to ensure the suitability of the products for their own use and to check the information is up to date. U-POL cannot be held responsible for the suitability of use for any of its products, considering the wide range of factors such as application, substrates and handling methods. Since these conditions of use are outside of our control, the company shall not be held liable for any damage resulting from handling or from contact with the product detailed. Moreover, addition of reducers, hardeners or other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. U-POL data sheets are available via the U-POL website at WWW.U-POL.COM.