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

<table>
<thead>
<tr>
<th>1.1.</th>
<th>Product identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Mixture</td>
</tr>
<tr>
<td>Product name</td>
<td>BPO HARDENER (RED)</td>
</tr>
<tr>
<td>Type of product</td>
<td>Hardener</td>
</tr>
<tr>
<td>Product group</td>
<td>BPO Hardener</td>
</tr>
</tbody>
</table>

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

#### 1.2.1. Relevant identified uses

<table>
<thead>
<tr>
<th>Industrial/Professional use spec</th>
<th>For professional use only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function or use category</td>
<td>Hardener (Crosslinker)</td>
</tr>
</tbody>
</table>

#### 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

### 2.2. Label elements

#### Hazard pictograms (CLP)

![GHS02 ![GHS07 ![GHS09

**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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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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

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

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

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


Unsuitable extinguishing media: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture


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.
SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
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)

<table>
<thead>
<tr>
<th>United Kingdom</th>
<th>Local name</th>
<th>Dibenzoyl peroxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>WEL TWA (mg/m³)</td>
<td>5 mg/m³</td>
</tr>
</tbody>
</table>

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

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
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
BPO HARDENER (RED)
Persistence and degradability : Not established.

12.3. Bioaccumulative potential
BPO HARDENER (RED)
Bioaccumulative potential : Not established.

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
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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<table>
<thead>
<tr>
<th>Limited quantities (ADR)</th>
<th>500g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excepted quantities (ADR)</td>
<td>E0</td>
</tr>
<tr>
<td>Packing instructions (ADR)</td>
<td>P520</td>
</tr>
<tr>
<td>Mixed packing provisions (ADR)</td>
<td>MP4</td>
</tr>
<tr>
<td>Transport category (ADR)</td>
<td>2</td>
</tr>
</tbody>
</table>

Special provisions for carriage - Packages (ADR)

<table>
<thead>
<tr>
<th>Special provisions for carriage - Loading, unloading and handling (ADR)</th>
<th>CV15, CV22, CV24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tunnel restriction code (ADR)</td>
<td>D</td>
</tr>
<tr>
<td>EAC code</td>
<td>1W</td>
</tr>
</tbody>
</table>

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
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
Coils express (express parcels) (RID) : CE10
Hazard identification number (RID) : 539
Carriage prohibited (RID) : No
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


Other information : None.

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

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

UPOL SDS EU (no product code)

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