

<b>Trade Name:</b>	<b>RAWL R-HAC Capsule</b>
<b>Producer: Supplier:</b>	<b>Rawlplug Limited</b> <b>Skibo Drive</b> <b>Thornliebank Industrial Estate</b> <b>Glasgow G46 8JR. GB</b> <b>Telephone: 0141 638 7961</b> <b>Fax: 0141 638 7397</b>
<b>Printing Date</b>	<b>12.02.2004</b>

**1. Identification of the substance/preparation and of the company/undertaking**

**1.1 Description of substance or preparation**

**RAWL R-HAC CAPSULE COMPOUND A AND B**

**1.2 Firm Name**

**Rawlplug Ltd**

**1.3 Telephone number of the firm in case of emergencies:**

**0141 638 7961**

**2. Composition/information on ingredients**

**2.1 Chem. name / % content / symbol / R-phrases**

Dibenzoyl peroxide; 30 - 60; E/Xi; 2-7-36-43; CAS 94-36-0  
Styrene; 20 - 40; 10-20-36/38; CAS 100-42-5

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**3. Hazards identification**

**3.1 To people**

Product is flammable.

Inhaling:

Product is harmful to health.

Skin contact:

May cause sensitization by skin contact.

Product is irritating.

Product is oxidizing.

Eye contact:

Irritation of the eyes.

These details refer to the cartridge before usage.

**3.2 To the environment**

See point 12.

Toxicity to fish:

LC50 Leuciscus idus 35 mg/l/48h (Styrene)

LC50/96h 2 mg/L Poecilia reticulata (Dibenzoyl peroxide); NOEC/96h 0,7 mg/l

Toxicity to daphnia:

LC50/96h 3,7 mg/l Daphnia magna (Dibenzoyl peroxide)

Toxicity to bacteria:

EC10 Pseudomonas putida 250 ul/l/18h (Styrene)

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#### **4. First aid measures**

##### **4.1 Inhalation**

Remove person from danger area.  
Supply person with fresh air.  
Keep data sheet available.

##### **4.2 Eye contact**

Wash thoroughly for several minutes using ample water  
(eye wash bottle if possible), call doctor immediately.  
Have data sheet available.

##### **4.3 Skin contact**

Wash thoroughly with soap and water – consult doctor if necessary.  
Remove contaminated clothing immediately.

##### **4.4 Ingestion**

Call doctor immediately, have data sheet available.  
Delayed effects from exposure can be expected (styrene).

##### **4.5 Special resources necessary for first aid**

n.c.

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#### **5. Fire-fighting measures**

CO<sub>2</sub>

Water jet spray

Dry extinguisher

##### **5.2 Unsuitable fire extinguisher for reasons of safety**

Water jet

##### **5.3 Special dangers caused by the substance of preparation itself, results of fire/burning, or ensuing gases**

In case of fire the following can develop:

Gases hazardous to health.

Carboxylic acids.

Oxides of carbon.

Organic decomposition products.

Flammable vapour/air mixtures.

Vapours hazardous to health.

##### **5.4 Special protective equipment for fire fighting**

Protective respirator with independent air supply.

According to size of fire.

Full protection, if necessary.

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## 6. Accidental release measures

### 6.1 Personal precautions

Remove possible causes of ignition – do not smoke.  
Avoid contact with eyes or skin.  
Caution – possibility of sliding.  
Provide sufficient fresh air.

### 6.2 Environmental measures

Prevent from entering drainage system.  
If leakage occurs, dam up.

### 6.3 Procedure for cleaning up

Collect using absorbant material (e.g. Universal binding medium) and dispose according to point 13. Collect mechanically and dispose according to point 13.

## 7. Handling and storage

### 7.1 Handling

#### Tips for safe handling:

Only use working methods according to operating instructions.  
Keep away from sources of ignition – do not smoke.  
General hygiene measures for the handling of chemicals are applicable.

### 7.2 Storage

Not to be stored in gangways or stair wells.  
Only store products unopened, in original packing.  
Observe TRGS 515.

#### Special storage conditions:

See point 10.2.  
Store cool.  
Do not store over 25°C.  
Danger of explosion by storing in sealed containers.  
Protect against moisture and store closed.

## 8. Exposure controls/personal protection

### Chem. name / % content / MAK-value / TRK-value / BAT-value

Dibenzoyl peroxide; 30 - 60; MAK 5 mg/m<sup>3</sup> = 1  
Styrene; 20 - 40; MAK 20 ppm (86 mg/m<sup>3</sup>); BAT 600 mg/g

- |     |                                     |  |
|-----|-------------------------------------|--|
| 8.1 | respiration protection              | If MAK-value is exceeded. A or A - P 2.                  |
| 8.2 | Hand protection:                    | Protective PVC gloves.                                   |
| 8.3 | Eye protection,<br>face protection: | Tightly fitting protective goggles with side protection. |
| 8.4 | Body protection:                    | Protective working garments.                             |

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## 9. Physical and chemical properties

Physical state:	B: solid, powder A: liquid
Colour:	B: red A: yellow
Odour:	B: odourless A: characteristic
pH-value:	B: 7
Boiling point/range (in °C):	B: decomposition > 60 (SADT) A: 145 (Styrene)
Melting point (in °C):	B: ≈ 55 A: -31 (Styrene)
Flash point in °C:	A: 31 (Styrene)
Autoflammability:	B: No
Oxidizing properties:	B: Yes A: No
Minimum limit of explosion:	A: 1,1 Vol% (Styrene)
Maximum limit of explosion:	A: 8,9 Vol% (Styrene)
Vapour pressure:	A: 6 hPa/20°C (Styrene)
Relative density (g/cm <sup>3</sup> ):	A: 1,15/20°C
Bulk density (kg/m <sup>3</sup> ):	A: 630/20°C
Solubility in water:	A/B: Insoluble
Viscosity:	A: 2200 mPas/23°C
A = Resin compound B = Peroxide compound	

## 10. Stability and reactivity

### 10.1 Conditions to avoid

see point 7.

Heating > 60°C – exothermic decomposition/polymerisation.

Protect from humidity.

Heating, open flame, ignition sources.

### 10.2 Material to avoid

See point 7.

Avoid contact with other chemicals.

Rust, bases, amines, acids – violent reaction.

Heavy metal salts.

Avoid contact with strong alkalis.

Avoid contact with oxidizing agents.

### 10.3 Hazardous decomposition products

See point 5.3

### 10.4 Additional information

Stabilizers necessary: Yes

Stabilizers available: Yes

Effects of changes in physical state,  
on safety: Yes

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## 11. Toxicological information

### 11.1 Acute toxicity

- |   |                             |
|---|-----------------------------|
| 11.1.1 Ingestion, LD50 rat oral (mg/kg):            | n.d.a.                      |
| 11.1.2 Inhalation, LC50 rat inhaling(mg/l/4h):      | n.d.a. A: harmful to health |
| 11.1.3 Skin contact, LD50 rat dermal (mg/kg):k.D.v. | A: Irritant                 |
| 11.1.4 Eye contact                                  | A/B: Irritant               |

### 11.2 Chronic effects

- |                               |        |
|-------------------------------|--------|
| 11.2.1 Sensitization:         | B: Yes |
| 11.2.2 Carcinogenicity:       | n.d.a. |
| 11.2.3 Mutagenicity:          | n.d.a. |
| 11.2.4 Reproductive toxicity: | n.d.a. |
| 11.2.5 Narcosis:              | n.d.a. |

### 11.3 Further information

Classification according to calculation method.

## 12. Ecological information

- |                                  |  |
|----------------------------------|--|
| 12.1 Water hazard class:         | B: 1 A: 2  |
| 12.2 Self classification:        | Yes (VwVwS)  |
| 12.3 Degradability:              | CE50/30 Min. 35 mg/l<br>(degradability of activated sludge<br>(Dibenzoyl peroxide) |
| 12.4 Behaviour in sewage plants: | n.d.a.   |
| 12.5 Aquatic toxicity:           | see point 3  |
| 12.6 Ecological toxicity:        | see point 3.   |

## 13. Disposal considerations

### 13.1. for the material/preparation/residue

EC disposal code no. 08 04 04 (hardened adhesives and sealants)

Recommendation:

Pay attention to local and national official regulations.

E.Gg. dispose at suitable refuse site.

### 13.2 For contaminated material

See point 13.1

Pay attention to local and national official regulations.

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#### 14. Transport information

##### General statements

UN-Number 3269

##### Road/Rail-transport (GGVS/ADR/GGVE/RID)

GGVS/ADR: 3/31c) (class/number)

3269 polyester resin kit

##### Transport by sea

GGVSee/IMDG-Code: 3.3/3377-1/III (class/code/packing group)

EmS-No.: 3-07

MFAG-No.: 310

Marine Pollutant: Yes

Polyester resin kit (Styrene monomer, inhibited)

##### Transport by air

IATA: 3/-/III (class/code/packing group)

Polyester resin kit

##### Additional information:

**Minimum amount regulations have not been taken into account.**

Danger code and packing code on request.

#### 15. Regulatory information

##### Classification according to Dangerous Product Regulations (67/548/EWG and 88/379/EWG)

Symbol: B: Xn/O A: Xn

Description of danger:

Compound B:

Harmful to health

Oxidizing

Compound A:

Harmful to health

R-phrase:

Compound B:

7 May cause fire.

36 Irritating to eyes.

43 May cause sensitization by skin contact.

Compound A:

10 Flammable.

20 Harmful to health on inhalation.

36/38 Irritant to eyes and skin.

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## S-phrases:

## Compound B:

(2) Keep out of the reach of children.

3/7 Keep container tightly closed in a cool place.

14 Keep away from dirt, rust, alcalis, acids and accelerators (like heavy metal salts and amines).

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

(46) If swallowed, seek medical advice immediately and show this container or label.

## Compound A:

(2) Keep out of the reach of children.

23.f Do not breathe vapour /aerosol.

36/37/38 Wear suitable protective clothing, gloves and eye/face protection.

(46) If swallowed, seek medical advice immediately and show this container or label.

51 Use only, where sufficient fresh air is provided.

Additions:

B: Dibenzoyl peroxide A: Styrene

VbF:

n.a.

Observe restrictions:

Yes

**16. Other details**

These details refer to the product as it is delivered.

Observe disruptive incident regulation

Observe „Organic Peroxide“ (VBG 58)

Storage class VCI: 5.2

Revised points: n.a.

**Legend:**

n.a. = not applicable / n.c. = not checked / n.d.a. = no data available

VbF = regulations for flammable liquids / MAK = maximum concentration per work place in ml/m<sup>3</sup> = ppm

BAT = biological tolerance for work places / TRbF = technical regulations for flammable liquids

WGK = water hazard class