# SAFETY DATA SHEET
# BAL DPM HARDENER

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

### 1.1. Product identifier

**Product name** BAL DPM HARDENER

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

**Identified uses** For professional use only. Primer. Damp Proof Membrane. Waterproof coating.

### 1.3. Details of the supplier of the safety data sheet

**Supplier**

Building Adhesives Ltd
Longton Road,
Trentham,
Stoke on Trent
ST4 8JB

01782 591100

**Contact person** sdsreply@building-adhesives.com

### 1.4. Emergency telephone number

**Emergency telephone** UK and ROI:- 01865 407 333 (available 24/7/365) ROI:- +353 (0)1 809 2166 (available 8am-10pm, 7 days)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification (EC 1272/2008)**

**Physical hazards** Not Classified

**Health hazards** Acute Tox. 4 - H302 Acute Tox. 4 - H332 Skin Corr. 1B - H314 Skin Sens. 1 - H317 Repr. 2 - H361f

**Environmental hazards** Not Classified

### 2.2. Label elements

**Hazard pictograms**

**Signal word** Danger

**Hazard statements**

H302+H332 Harmful if swallowed or if inhaled.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H361f Suspected of damaging fertility.

# BAL DPM HARDENER

**Precautionary statements** P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P310 Immediately call a POISON CENTER/ doctor.
P501 Dispose of contents/ container in accordance with local regulations.

**Contains** BENZYL ALCOHOL, 3-AMINOPROPYLDIMETHYLAMINE, ISOPHORONEDIAMINE, 4,4'-ISOPROPYLIDENEDIPHENOL, M-PHENYLENEBIS(METHYLAMINE)

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

**BENZYL ALCOHOL** **30-60%**

CAS number: 100-51-6 EC number: 202-859-9

**Classification**
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Eye Irrit. 2 - H319

**M-PHENYLENEBIS(METHYLAMINE)** **5-10%**

CAS number: 1477-55-0 EC number: 216-032-5

**Classification**
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Skin Corr. 1B - H314
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

**ISOPHORONEDIAMINE** **5-10%**

CAS number: 2855-13-2 EC number: 220-666-8

**Classification**
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Corr. 1B - H314
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

**2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL** **5-10%**

CAS number: 90-72-2 EC number: 202-013-9

**Classification**
Skin Corr. 1B - H314
Skin Sens. 1 - H317
Aquatic Chronic 3 - H412

# BAL DPM HARDENER

| 4,4'-ISOPROPYLIDENEDIPHENOL | 5-10% |
|---|---|
| CAS number: 80-05-7 | EC number: 201-245-8 |

**Classification**
Eye Dam. 1 - H318
Skin Sens. 1 - H317
Repr. 2 - H361f
STOT SE 3 - H335

| 3-AMINOPROPYLDIMETHYLAMINE | 5-10% |
|---|---|
| CAS number: 109-55-7 | EC number: 203-680-9 |

**Classification**
Flam. Liq. 3 - H226
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Skin Corr. 1B - H314
Skin Sens. 1 - H317
STOT SE 3 - H335

The full text for all hazard statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**Inhalation** Remove affected person from source of contamination. If breathing stops, provide artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.

**Ingestion** DO NOT induce vomiting. Get medical attention immediately. Rinse mouth thoroughly with water. Give plenty of water to drink.

**Skin contact** Remove affected person from source of contamination. Remove contaminated clothing. Continue to rinse for at least 15 minutes. Get medical attention. Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.

**Eye contact** Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

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

**General information** Get medical attention promptly if symptoms occur after washing.

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

**Notes for the doctor** No specific recommendations. If in doubt, get medical attention promptly.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media** Extinguish with alcohol-resistant foam, carbon dioxide or dry powder.

### 5.2. Special hazards arising from the substance or mixture

**Specific hazards** In case of fire, toxic and corrosive gases may be formed. Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

**Hazardous combustion products** Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

# BAL DPM HARDENER

### 5.3. Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2. Environmental precautions

**Environmental precautions** Avoid or minimise the creation of any environmental contamination.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Do not touch or walk into spilled material. Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Avoid spilling. Avoid contact with skin and eyes.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly-closed, original container in a dry, cool and well-ventilated place. Keep only in the original container.

**Storage class** Corrosive storage.

### 7.3. Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

## SECTION 8: Exposure controls/Personal protection

### 8.1. Control parameters

**Ingredient comments** WEL = Workplace Exposure Limits

#### BENZYL ALCOHOL (CAS: 100-51-6)

**DNEL** Workers - Dermal; Long term : 9.5 mg/kg/day
Workers - Inhalation; Long term : 90 mg/m³

**PNEC** Fresh water; 1 mg/l
marine water; 0.1 mg/l

#### 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL (CAS: 90-72-2)

**DNEL** Workers - Inhalation; Short term : 0.31 mg/m³

**PNEC** Fresh water; 0.84 mg/l
;

# BAL DPM HARDENER

### 3-AMINOPROPYLDIMETHYLAMINE (CAS: 109-55-7)

| | |
|---|---|
| **DNEL** | Workers - Inhalation; Short term : 9.8 mg/m³ |
| **PNEC** | Fresh water; 0.0535 mg/l<br>marine water; 0.00535 mg/l |

### 4,4'-ISOPROPYLIDENEDIPHENOL (CAS: 80-05-7)

| | |
|---|---|
| **DNEL** | Workers - Dermal; Short term : 1.4 mg/kg/day<br>Workers - Inhalation; Short term : 10 mg/m³ |
| **PNEC** | Fresh water; 0.018 mg/l<br>marine water; 0.016 mg/l |

### ISOPHORONEDIAMINE (CAS: 2855-13-2)

| | |
|---|---|
| **DNEL** | Workers - Inhalation; Short term : 20.1 mg/m³ |
| **PNEC** | Fresh water; 0.06 mg/l<br>marine water; 0.006 mg/l |

### M-PHENYLENEBIS(METHYLAMINE) (CAS: 1477-55-0)

| | |
|---|---|
| **PNEC** | Fresh water; 0.94 mg/l<br>marine water; 0.0094 mg/l |

## 8.2. Exposure controls

**Protective equipment**

| | |
|---|---|
| **Appropriate engineering controls** | Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients. |
| **Eye/face protection** | The following protection should be worn: Chemical splash goggles. |
| **Hand protection** | Use protective gloves. It is recommended that gloves are made of the following material: Viton rubber (fluoro rubber). Nitrile rubber. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. |
| **Other skin and body protection** | Wear appropriate clothing to prevent any possibility of skin contact. |
| **Hygiene measures** | Provide eyewash station and safety shower. Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke. |
| **Respiratory protection** | If ventilation is inadequate, suitable respiratory protection must be worn. Combination filter, type A2/P2. |

## SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

| | |
|---|---|
| **Appearance** | Coloured liquid. |

# BAL DPM HARDENER

| | |
|---|---|
| **Colour** | Amber. |
| **Odour** | Pungent. Amine. |
| **Flash point** | ~ 86°C Not specified. |
| **Solubility(ies)** | Immiscible with water. |
| **Viscosity** | 600 mPa s @ 20°C |

### 9.2. Other information

| | |
|---|---|
| **Other information** | No information required. |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

| | |
|---|---|
| **Reactivity** | There are no known reactivity hazards associated with this product. |

### 10.2. Chemical stability

| | |
|---|---|
| **Stability** | Stable at normal ambient temperatures. |

### 10.3. Possibility of hazardous reactions

| | |
|---|---|
| **Possibility of hazardous reactions** | The following materials may react violently with the product: Strong acids. Strong oxidising agents. |

### 10.4. Conditions to avoid

| | |
|---|---|
| **Conditions to avoid** | Avoid excessive heat for prolonged periods of time. |

### 10.5. Incompatible materials

| | |
|---|---|
| **Materials to avoid** | Strong oxidising agents. Alkali metals. Zinc, Nitrates, Peroxide. |

### 10.6. Hazardous decomposition products

| | |
|---|---|
| **Hazardous decomposition products** | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen. |

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

| | |
|---|---|
| **ATE oral (mg/kg)** | 1,642.38 |

#### Acute toxicity - dermal

| | |
|---|---|
| **ATE dermal (mg/kg)** | 14,526.32 |

#### Acute toxicity - inhalation

| | |
|---|---|
| **ATE inhalation (gases ppm)** | 10,000.0 |
| **ATE inhalation (vapours mg/l)** | 19.64 |
| **ATE inhalation (dusts/mists mg/l)** | 3.33 |

| | |
|---|---|
| **Inhalation** | Vapour may irritate respiratory system/lungs. |
| **Ingestion** | Ingestion may cause severe irritation of the mouth, the oesophagus and the gastrointestinal tract. |
| **Skin contact** | May cause skin irritation/eczema. |

# BAL DPM HARDENER

**Eye contact** Causes burns.

**Toxicological information on ingredients.**

## BENZYL ALCOHOL

**Acute toxicity - oral**

| | |
|---|---|
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 1,360.0 |
| **Species** | Mouse |
| **ATE oral (mg/kg)** | 1,360.0 |

**Acute toxicity - dermal**

| | |
|---|---|
| **Acute toxicity dermal ($LD_{50}$ mg/kg)** | 2,000.0 |
| **Species** | Rabbit |

## M-PHENYLENEBIS(METHYLAMINE)

**Acute toxicity - oral**

| | |
|---|---|
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 930.0 |
| **Species** | Rat |
| **ATE oral (mg/kg)** | 930.0 |

**Acute toxicity - dermal**

| | |
|---|---|
| **Acute toxicity dermal ($LD_{50}$ mg/kg)** | 3,100.0 |
| **Species** | Rabbit |
| **Notes (dermal $LD_{50}$)** | |

## ISOPHORONEDIAMINE

**Acute toxicity - oral**

| | |
|---|---|
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 1,030.0 |
| **Species** | Rat |
| **ATE oral (mg/kg)** | 1,030.0 |

**Acute toxicity - dermal**

| | |
|---|---|
| **Acute toxicity dermal ($LD_{50}$ mg/kg)** | 1,840.0 |
| **Species** | Rabbit |
| **ATE dermal (mg/kg)** | 1,840.0 |

## 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

**Acute toxicity - oral**

# BAL DPM HARDENER

| | |
|---|---|
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 2,169.0 |
| **Species** | Rat |
| **ATE oral (mg/kg)** | 2,169.0 |

**4,4'-ISOPROPYLIDENEDIPHENOL**

| | |
|---|---|
| **Acute toxicity - oral** | |
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 3,250.0 |
| **Species** | Rat |
| **ATE oral (mg/kg)** | 3,250.0 |
| **Acute toxicity - dermal** | |
| **Acute toxicity dermal ($LD_{50}$ mg/kg)** | 3,000.0 |
| **Species** | Rat |
| **ATE dermal (mg/kg)** | 3,000.0 |
| **Acute toxicity - inhalation** | |
| **Acute toxicity inhalation ($LC_{50}$ vapours mg/l)** | 5.0 |
| **Species** | Rat |

**3-AMINOPROPYLDIMETHYLAMINE**

| | |
|---|---|
| **Acute toxicity - oral** | |
| **Acute toxicity oral ($LD_{50}$ mg/kg)** | 410.0 |
| **Species** | Rat |
| **ATE oral (mg/kg)** | 410.0 |
| **Acute toxicity - dermal** | |
| **Acute toxicity dermal ($LD_{50}$ mg/kg)** | 1,200.0 |
| **Species** | Rat |
| **ATE dermal (mg/kg)** | 1,200.0 |
| **Acute toxicity - inhalation** | |
| **Acute toxicity inhalation ($LC_{50}$ vapours mg/l)** | 24.8 |
| **Species** | Rat |
| **ATE inhalation (vapours mg/l)** | 24.8 |

## SECTION 12: Ecological information

# BAL DPM HARDENER

**Ecotoxicity** No data on possible environmental effects have been found.

## 12.1. Toxicity

**Ecological information on ingredients.**

### BENZYL ALCOHOL

**Acute aquatic toxicity**

| | |
|---|---|
| **Acute toxicity - fish** | LC50, 96 hours: 10 mg/l, Lepomis macrochirus (Bluegill) |
| **Acute toxicity - aquatic invertebrates** | $EC_{50}$, 24 hours: 400 mg/l, Daphnia magna |

### M-PHENYLENEBIS(METHYLAMINE)

**Acute aquatic toxicity**

| | |
|---|---|
| **Acute toxicity - fish** | LC50, 96 hours: 87.6 mg/l, Oryzias latipes (Red killifish)<br>$LC_{50}$, 96 hours: >100 mg/l, Oncorhynchus mykiss (Rainbow trout)<br>$LC_{50}$, 96 hours: >100 mg/l, Brachydanio rerio (Zebra Fish) |
| **Acute toxicity - aquatic invertebrates** | $EC_{50}$, 48 hours: 15.2 mg/l, Daphnia magna |
| **Acute toxicity - aquatic plants** | $EC_{80}$, 72 hours: 20.3 mg/l, Selenastrum capricornutum |

### ISOPHORONEDIAMINE

**Acute aquatic toxicity**

| | |
|---|---|
| **Acute toxicity - fish** | LC50, 96 hours: 110 mg/l, Leuciscus idus (Golden orfe) |
| **Acute toxicity - aquatic invertebrates** | $EC_{50}$, 48 hours: 23 mg/l, Daphnia magna |
| **Acute toxicity - aquatic plants** | $EC_{50}$, 72 hours: >50 mg/l, Scenedesmus subspicatus |

### 2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

**Acute aquatic toxicity**

| | |
|---|---|
| **Acute toxicity - fish** | $LC_{50}$, 24 hours: 222 mg/l, Oncorhynchus mykiss (Rainbow trout) |
| **Acute toxicity - aquatic plants** | $LC_{50}$, 72 hours: 84 mg/l, Scenedesmus subspicatus |

### 4,4'-ISOPROPYLIDENEDIPHENOL

**Acute aquatic toxicity**

| | |
|---|---|
| **Acute toxicity - fish** | $EC_{80}$, 96 hours: 42 mg/l, Fish |

### 3-AMINOPROPYLDIMETHYLAMINE

**Acute aquatic toxicity**

| | |
|---|---|
| **Acute toxicity - fish** | $LC_{80}$, 96 hours: 122 mg/l, Leuciscus idus (Golden orfe) |
| **Acute toxicity - aquatic invertebrates** | $EC_{50}$, 48 hours: 59.5 mg/l, Daphnia magna |

# BAL DPM HARDENER

| | |
|---|---|
| **Acute toxicity - aquatic plants** | $LC_{50}$, 72 hours: 53.5 mg/l, Scenedesmus subspicatus |

### 12.2. Persistence and degradability

**Persistence and degradability** Not expected to be readily biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** May accumulate in soil and water systems.

### 12.4. Mobility in soil

**Mobility** The product has poor water-solubility.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** No information available.

### 12.6. Other adverse effects

**Other adverse effects** Not determined.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

## SECTION 14: Transport information

### 14.1. UN number

**UN No. (ADR/RID)** 2735

**UN No. (IMDG)** 2735

**UN No. (ICAO)** 2735

**UN No. (ADN)** 2735

### 14.2. UN proper shipping name

**Proper shipping name (ADR/RID)** AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS M-PHENYLENEBIS(METHYLAMINE), ISOPHORONEDIAMINE)

**Proper shipping name (IMDG)** AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS M-PHENYLENEBIS(METHYLAMINE), ISOPHORONEDIAMINE)

**Proper shipping name (ICAO)** AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS M-PHENYLENEBIS(METHYLAMINE), ISOPHORONEDIAMINE)

**Proper shipping name (ADN)** AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS M-PHENYLENEBIS(METHYLAMINE), ISOPHORONEDIAMINE)

### 14.3. Transport hazard class(es)

**ADR/RID class** 8

**ADR/RID classification code** C7

**ADR/RID label** 8

**IMDG class** 8

**ICAO class/division** 8

# BAL DPM HARDENER

| | |
|---|---|
| **ADN class** | 8 |

**Transport labels**


## 14.4. Packing group

| | |
|---|---|
| **ADR/RID packing group** | II |
| **IMDG packing group** | II |
| **ICAO packing group** | II |
| **ADN packing group** | II |

## 14.5. Environmental hazards

**Environmentally hazardous substance/marine pollutant**
No.

## 14.6. Special precautions for user

| | |
|---|---|
| **IMDG Code segregation group** | 18. Alkalis |
| **EmS** | F-A, S-B |
| **ADR transport category** | 2 |
| **Emergency Action Code** | 2X |
| **Hazard Identification Number (ADR/RID)** | 80 |
| **Tunnel restriction code** | (E) |

## 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

| | |
|---|---|
| **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

| | |
|---|---|
| **EU legislation** | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).<br>Commission Regulation (EU) No 2015/830 of 28 May 2015.<br>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 (as amended). |
| **Guidance** | Workplace Exposure Limits EH40. |

### 15.2. Chemical safety assessment

## SECTION 16: Other information

| | |
|---|---|
| **Revision comments** | 2 |
| **Issued by** | Technical Manager |

# BAL DPM HARDENER

**Revision date** 05/05/2020

**Hazard statements in full**

H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H361f Suspected of damaging fertility.
H412 Harmful to aquatic life with long lasting effects.