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

1.1. Product identifier

Product name: DFense Blok Resin

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

Identified uses: Two-component, epoxy-based adhesive.

1.3. Details of the supplier of the safety data sheet

Supplier: ITW Performance Polymers
Bay 150
Shannon Industrial Estate
Co. Clare
Ireland
V14 DF82
353(61)771500
353(61)471285
mail@itwpp.com

1.4. Emergency telephone number

Emergency telephone: +44(0)1235 239 670 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards: Not Classified

Health hazards: Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317

Environmental hazards: Aquatic Chronic 2 - H411

2.2. Label elements

Pictogram

Signal word: Warning

Hazard statements:
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
DFense Blok Resin

Precautionary statements

P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352 IF ON SKIN: Wash with plenty of water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.

Contains

PHENOL,POLYMER WITH FORMALDEHYDE,GLYCIDYL ETHER, EPOXY RESIN (Number average MW <= 700 ), Reaction product of Epichlorohydrin & Bisphenol A, 1,3-bis(2,3-EPOXYPROPOXY)-2,2-DIMETHYLPROPANE

Supplementary precautionary statements

P261 Avoid breathing vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P321 Specific treatment (see medical advice on this label).
P322+P313 If skin irritation occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.
P501 Dispose of contents/ container in accordance with national regulations.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>PHENOL,POLYMER WITH FORMALDEHYDE,GLYCIDYL ETHER</th>
<th>10-30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 28064-14-4</td>
<td></td>
</tr>
</tbody>
</table>

Classification

Skin Irrit. 2 - H315
Eye Irr. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

<table>
<thead>
<tr>
<th>EPOXY RESIN (Number average MW &lt;= 700 )</th>
<th>5-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 25068-38-6</td>
<td></td>
</tr>
<tr>
<td>EC number: 500-033-5</td>
<td></td>
</tr>
<tr>
<td>REACH registration number: 01-2119456619-26-0000</td>
<td></td>
</tr>
</tbody>
</table>

Classification

Skin Irrit. 2 - H315
Eye Irr. 2 - H319
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411
**DFense Blok Resin**

**Reaction product of Epichlorohydrin & Bisphenol A**  
5-10%  
CAS number: 25085-99-8  
EC number: 500-033-5

**Classification**  
Skin Irrit. 2 - H315  
Eye Irrit. 2 - H319  
Skin Sens. 1 - H317  
Aquatic Chronic 2 - H411

**1,3-bis(2,3-EPOXYPROPOXY)-2,2-DIMETHYLPROPANE**  
<1%  
CAS number: 17557-23-2  
EC number: 241-536-7

**Classification**  
Skin Irrit. 2 - H315  
Skin Sens. 1 - H317

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**: Move affected person to fresh air at once. If breathing stops, provide artificial respiration.
- **Ingestion**: Do not induce vomiting. Consult a physician for specific advice. Never give anything by mouth to an unconscious person.
- **Skin contact**: Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.
- **Eye contact**: Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes.

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

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

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

- Suitable extinguishing media: Extinguish with carbon dioxide or dry powder.

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

- Hazardous combustion products: Does not decompose when used and stored as recommended.

**5.3. Advice for firefighters**

- Protective actions during firefighting: Evacuate area of unprotected personnel. Control run-off water by containing and keeping it out of sewers and watercourses.
- Special protective equipment for firefighters: Use air-supplied respirator, gloves and protective goggles.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**
DFense Blok Resin

Personal precautions For personal protection, see Section 8.

6.2. Environmental precautions
Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Flush contaminated area with plenty of water.

6.4. Reference to other sections
SECTION 7: Handling and storage

7.1. Precautions for safe handling
Usage precautions Provide adequate ventilation. Avoid inhalation of vapours.

7.2. Conditions for safe storage, including any incompatibilities
Storage precautions Keep container tightly closed. Store in tightly-closed, original container in a dry and cool place. Store away from incompatible materials (see Section 10).

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

EPOXY RESIN (Number average MW <= 700 ) (CAS: 25068-38-6)

DNEL Workers - Dermal; Short term systemic effects: 8.33 mg/kg/day
Workers - Inhalation; Short term systemic effects: 12.25 mg/m³

8.2. Exposure controls
Appropriate engineering controls Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles. Personal protective equipment for eye and face protection should comply with European Standard EN166.

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. The selected gloves should have a breakthrough time of at least 8 hours.

Other skin and body protection Provide eyewash station and safety shower.

Hygiene measures Promptly remove any clothing that becomes wet or contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn. Respirator selection must be based on exposure levels, the hazards of the product and the safe working limits of the selected respirator. Check that the respirator fits tightly and the filter is changed regularly. Wear a respirator fitted with the following cartridge: Gas filter, type A2. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.
DFense Blok Resin

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>solid</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild.</td>
</tr>
<tr>
<td>pH (concentrated solution)</td>
<td>neutral</td>
</tr>
<tr>
<td>Melting point</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Flash point</td>
<td>93.3°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.29g/mL</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

9.2. Other information

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 and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions

No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid

Avoid heat. Avoid contact with strong oxidising agents. Avoid contact with acids.

10.5. Incompatible materials

Materials to avoid


10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

ECOTOXICITY

No data on possible environmental effects have been found.

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

12.4. Mobility in soil

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects
DFense Blok Resin

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

General
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number
Not applicable.

14.2. UN proper shipping name
Not applicable.

14.3. Transport hazard class(es)
Transport labels
No transport warning sign required.

14.4. Packing group
Not applicable.

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user
Not applicable.

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

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date
03/04/2018
Revision
4
Supersedes date
28/04/2016
DFense Blok Resin

Hazard statements in full

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.