SAFETY DATA SHEET
BRUSHABLE CERAMIC BLUE RESIN

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

1.1. Product identifier

Product name: BRUSHABLE CERAMIC BLUE RESIN
Product number: 11762(R)
UFI: UFI: 7A50-70M4-J00E-UX7P

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

Identified uses: Resin.

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
customerservice.shannon@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

Human health: The product contains an epoxy resin. May cause sensitisation or allergic reactions in sensitive individuals.

2.2. Label elements

Hazard pictograms

| ! |  |

Signal word: Warning

Hazard statements:
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
BRUSHABLE CERAMIC BLUE 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
EPOXY RESIN (Number average MW <= 700 ), 1,4-BIS[(2,3-EPOXYPROPOXY)METHYL]CYCLOHEXANE

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).
P332+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
This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

<table>
<thead>
<tr>
<th>EPOXY RESIN (Number average MW &lt;= 700 )</th>
<th>30-60%</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>
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</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>1,4-BIS[(2,3-EPOXYPROPOXY)METHYL]CYCLOHEXANE</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 14228-73-0</td>
<td></td>
</tr>
<tr>
<td>EC number: 238-098-4</td>
<td></td>
</tr>
</tbody>
</table>

Classification
Skin Sens. 1 - H317

<table>
<thead>
<tr>
<th>TITANIUM DIOXIDE</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 13463-67-7</td>
<td></td>
</tr>
<tr>
<td>EC number: 236-675-5</td>
<td></td>
</tr>
<tr>
<td>REACH registration number: 01-2119489379-17-0000</td>
<td></td>
</tr>
</tbody>
</table>

Classification
Carc. 2 - H351
BRUSHABLE CERAMIC BLUE RESIN

2-BUTOXYETHANOL
CAS number: 111-76-2  EC number: 203-905-0

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319

<1%

Crystalline Silica (Quartz)
CAS number: 14808-60-7  EC number: 238-878-4

Classification
Carc. 1A - H350

<1%

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Avoid contact with skin and eyes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Inhalation
Move affected person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues.

Ingestion
Rinse mouth thoroughly with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Do not induce vomiting. Get medical attention immediately.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

Eye contact
Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention. Get medical attention if irritation persists after washing.

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

General information
The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

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 foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards
Irritating gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting
Avoid breathing fire gases or vapours. Keep up-wind to avoid fumes. Do not use water jet as an extinguisher, as this will spread the fire. Control run-off water by containing and keeping it out of sewers and watercourses.
BRUSHABLE CERAMIC BLUE RESIN

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

Warn everybody of potential hazards and evacuate if necessary. Provide adequate ventilation. Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions

Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

6.4. Reference to other sections

Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

Open drum carefully as content may be under pressure. Avoid spilling. Avoid contact with skin and eyes. Keep away from heat, sparks and open flame. Avoid eating, drinking and smoking when using the product. Good personal hygiene procedures should be implemented.

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. 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

Occupational exposure limits

TITANIUM DIOXIDE

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust
Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

2-BUTOXYETHANOL

Long-term exposure limit (8-hour TWA): WEL 25 ppm(Sk)
Short-term exposure limit (15-minute): WEL 50 ppm(Sk)

Crystalline Silica (Quartz)

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m³ respirable fraction
WEL = Workplace Exposure Limit.

Ingredient comments

WEL = Workplace Exposure Limits

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

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

**TRIETHYLENETETRAMINE (CAS: 112-24-3)**

**DNEL**
Workers - Inhalation; Long term systemic effects: 1 mg/m³
Workers - Inhalation; Short term systemic effects: 5380 mg/m³
Workers - Dermal; Long term systemic effects: 0.57 mg/kg/day

### 8.2. Exposure controls

**Protective equipment**

**Appropriate engineering controls**

Provide adequate general and local exhaust ventilation.

**Eye/face protection**

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

**Hand protection**

Wear protective gloves. It is recommended that gloves are made of the following material: Butyl rubber. 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**

Wear apron or protective clothing in case of contact.

**Hygiene measures**

Provide eyewash station and safety shower. Keep away from food, drink and animal feeding stuffs. Wash at the end of each work shift and before eating, smoking and using the toilet. Use appropriate skin cream to prevent drying of skin. Promptly remove any clothing that becomes contaminated.

**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.

### 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><strong>Appearance</strong></td>
<td>Viscous liquid</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>Blue</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Slight</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>pH (diluted solution): 7.0 50g/l H₂O</td>
</tr>
<tr>
<td><strong>Initial boiling point and range</strong></td>
<td>&gt;260°C @</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>&gt;204°C</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>&lt;0.03mmHg @ °C</td>
</tr>
</tbody>
</table>
BRUSHABLE CERAMIC BLUE RESIN

Relative density 1.83 @ °C
Solubility(ies) Slightly soluble in water.
Auto-ignition temperature >300°C
Viscosity 50,000 cP @ 25°C

9.2. Other information
Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity Acids. Strong oxidising agents.

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 Not available.

10.4. Conditions to avoid
Conditions to avoid Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials
Materials to avoid Strong acids. Strong oxidising agents.

10.6. Hazardous decomposition products
Hazardous decomposition products Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Aldehydes. Acids.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Skin contact Irritating to skin. Prolonged contact may cause redness, irritation and dry skin. May cause sensitisation by skin contact. May cause sensitisation or allergic reactions in sensitive individuals.
Eye contact Irritating to eyes.
Acute and chronic health hazards The product contains an epoxy resin. May cause sensitisation or allergic reactions in sensitive individuals.
Route of exposure Inhalation Ingestion.

SECTION 12: Ecological information

Ecotoxicity Avoid release to the environment. The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity
Toxicity Very toxic to aquatic organisms.

12.2. Persistence and degradability
BRUSHABLE CERAMIC BLUE RESIN

Persistence and degradability
There are no data on the degradability of this product.

12.3. Bioaccumulative potential
Bioaccumulative potential
No data available on bioaccumulation.

12.4. Mobility in soil
Mobility
Do not discharge into drains or watercourses or onto the ground.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment
This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects
Other adverse effects
Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
General information
When handling waste, the safety precautions applying to handling of the product should be considered.

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

Waste class
08 04 99

SECTION 14: Transport information

General
No other information known.

14.1. UN number
UN No. (ADR/RID) 3082
UN No. (IMDG) 3082
UN No. (ICAO) 3082

14.2. UN proper shipping name
Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700 ))
Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700 ))
Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700 ))

14.3. Transport hazard class(es)
ADR/RID class 9
ADR/RID label 9
IMDG class 9
ICAO class/division 9
BRUSHABLE CERAMIC BLUE RESIN

Transport labels

14.4. Packing group
ADR/RID packing group   III
IMDG packing group   III
ICAO packing group   III

14.5. Environmental hazards
Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user
EmS   F-A, S-F
Emergency Action Code   •3Z
Hazard Identification Number (ADR/RID)   90
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
No information required.

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 03/03/2021
Revision 20
Supersedes date 03/04/2018
# BRUSHABLE CERAMIC BLUE RESIN

**Hazard statements in full**

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H350 May cause cancer.
- H351 Suspected of causing cancer by inhalation.
- 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.