SAFETY DATA SHEET
BRUSHABLE CERAMIC RED RESIN

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

1.1. Product identifier

Product name: BRUSHABLE CERAMIC RED RESIN
Product number: X0030B

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
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

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

2.2. Label elements

Pictogram

Signal word: Warning
BRUSHABLE CERAMIC RED RESIN

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.

Precautionary statements
P273 Avoid release to the environment.
P274 Avoid breathing dust/vapours./smoke./gases./fume./spray.
P270 Offer first-aid as normally advised.
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.

Supplemental label information
EUH205 Contains epoxy constituents. May produce an allergic reaction.

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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</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
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. Get medical attention if any discomfort continues.

**Ingestion**
Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Rinse mouth thoroughly with water. Get medical attention.

**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.
BRUSHABLE CERAMIC RED RESIN

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.

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: Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions: Avoid the spillage or runoff entering drains, sewers or watercourses.

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: Use only in well-ventilated areas. Keep away from heat, sparks and open flame. Open drum carefully as content may be under pressure. Do not eat, drink or smoke 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): 10 mg/m3 total dust

2-BUTOXYETHANOL
BRUSHABLE CERAMIC RED RESIN

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

TOLUENE

Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 191 mg/m³(Sk)
Short-term exposure limit (15-minute): WEL 100 ppm(Sk) 384 mg/m³(Sk)

WEL = Workplace Exposure Limit

Ingredient comments

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

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. 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

Wear protective gloves made of the following material: Rubber or plastic. 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. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Do not eat, drink or smoke when using the product. Change work clothing daily before leaving workplace.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2. 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. 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
BRUSHABLE CERAMIC RED RESIN

Appearance  
Viscous liquid.

Colour  
Red.

Odour  
Slight.

pH  
pH (concentrated solution): 7.0 @ 20 ºC

Initial boiling point and range  
260°C @

Flash point  
204.4°C PMCC (Pensky-Martens closed cup).

Vapour pressure  
<0.03mmHg @ °C

Relative density  
1.83 @ 20 °C

Solubility(ies)  
Slightly soluble in water.

Auto-ignition temperature  
>300°C

9.2. Other information

Volatile organic compound  
This product contains a maximum VOC content of 50 g/litre.

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  
Avoid contact with the following materials: Acids. 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.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation  
May cause respiratory system irritation. Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Headache. Dizziness. Drowsiness.

Ingestion  
May cause chemical burns in mouth, oesophagus and stomach. Gastrointestinal symptoms, including upset stomach. May cause discomfort if swallowed.

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.
BRUSHABLE CERAMIC RED RESIN

Eye contact

Irritating to eyes. Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

Acute and chronic health hazards

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

Route of entry

Inhalation Ingestion. Skin and/or eye contact

Target organs

Eyes Skin Respiratory system, lungs

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

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

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

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700 )

General

No other information known.
BRUSHABLE CERAMIC RED RESIN

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 )

Proper shipping name (ADN) 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

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 2X
Hazard Identification Number (ADR/RID) 90

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

15.2. Chemical safety assessment
No chemical safety assessment has been carried out.
SECTION 16: Other information

Revision date 03/04/2018
Revision 10
Supersedes date 28/04/2017

Hazard statements in full
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
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.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
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.