SAFETY DATA SHEET
TITANIUM PUTTY (Ti) RESIN.

1. Identification

Product identifier
Product name TITANIUM PUTTY (Ti) RESIN.
Product number X0007

Recommended use of the chemical and restrictions on use
Application Resin.

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

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

2. Hazard(s) identification

Classification of the substance or mixture
Physical hazards Not Classified
Health hazards Skin Irrit. 2 - H315 Skin Sens. 1 - H317
Environmental hazards Aquatic Chronic 2 - H411

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

Label elements
Pictogram
Signal word Warning
Hazard statements H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
TITANIUM PUTTY (Ti) RESIN.

Precautionary statements

- P261 Avoid breathing vapor/ spray.
- P264 Wash contaminated skin thoroughly after handling.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- 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.
- P312 Specific treatment (see medical advice on this label).
- P332+P313 If skin irritation occurs: Get medical advice/ attention.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P501 Dispose of contents/ container in accordance with national regulations.

Contains

EPOXY RESIN (Number average MW <= 700 )

Other hazards

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

3. Composition/Information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>EPOXY RESIN (Number average MW &lt;= 700 )</th>
<th>10-30%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 25068-38-6</td>
<td></td>
</tr>
</tbody>
</table>

Classification

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

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

4. First-aid measures

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. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention.

Skin Contact

Remove affected person from source of contamination. Wash skin thoroughly 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.

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.

Indication of immediate medical attention and special treatment needed

Notes for the doctor

No specific recommendations. If in doubt, get medical attention promptly.
TITANIUM PUTTY (Ti) RESIN.

5. Fire-fighting measures

Extinguishing media
Suitable extinguishing media Extinguish with foam, carbon dioxide or dry powder.

Special hazards arising from the substance or mixture
Specific hazards Irritating gases or vapors.

Advice for firefighters
Protective actions during firefighting Avoid breathing fire gases or vapors. Keep up-wind to avoid fumes. 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.

6. Accidental release measures

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.

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.

Methods and material for containment and cleaning up
Methods for cleaning up Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. Containers with collected spillage must be properly labeled with correct contents and hazard symbol.

Reference to other sections
Wear protective clothing as described in Section 8 of this safety data sheet.

7. Handling and storage

Precautions for safe handling
Usage precautions Use only in well-ventilated areas. Handle and open container with care. Keep away from heat, sparks and open flame. Do not use in confined spaces without adequate ventilation and/or respirator. Do not eat, drink or smoke when using the product. Good personal hygiene procedures should be implemented.

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).

Specific end use(s)
Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Ingredient comments No exposure limits known for ingredient(s).

Exposure controls
TITANIUM PUTTY (Ti) RESIN.

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 OSHA 1910.133.

Hand protection

Wear protective gloves made of the following material: Rubber or plastic. To protect hands from chemicals, gloves should comply with OSHA 1910.138 and be demonstrated to be impervious to the chemical and resist degradation. The selected gloves should have a breakthrough time of at least 8 hours.

Other skin and body protection

Avoid contact with skin. Wear chemical protective suit.

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. 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 OSHA 1910.134.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Paste</td>
</tr>
<tr>
<td>Color</td>
<td>Dark. Grey.</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight.</td>
</tr>
<tr>
<td>pH</td>
<td>pH (concentrated solution): 7.0 @ 20 °C</td>
</tr>
<tr>
<td>Melting point</td>
<td>N/D°C</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>&gt;260°C @</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 204°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt;&lt;1 ( butyl acetate =1)</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>0.03mmHg @ °C</td>
</tr>
<tr>
<td>Vapor density</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Relative density</td>
<td>2.5 @ @ 20 °C°C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Slightly soluble in water.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>&gt;300°C</td>
</tr>
<tr>
<td>Other information</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

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## TITANIUM PUTTY (Ti) RESIN.

### 10. Stability and reactivity

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable at normal ambient temperatures and when used as recommended.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Avoid contact with the following materials: Strong oxidizing agents. Strong acids. Amines.</td>
</tr>
</tbody>
</table>

### 11. Toxicological information

#### Information on toxicological effects

<table>
<thead>
<tr>
<th>Inhalation</th>
<th>No significant hazard at normal ambient temperatures. Heating may generate the following products: Irritating gases or vapors.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingestion</td>
<td>Irritating. Symptoms following overexposure may include the following: Nausea, vomiting. Stomach pain.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Irritating to skin. May cause sensitisation by skin contact. The product contains a small amount of sensitizing substance. May cause sensitization or allergic reactions in sensitive individuals.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Irritating to eyes.</td>
</tr>
<tr>
<td>Acute and chronic health hazards</td>
<td>The product contains an epoxy resin. May cause sensitization or allergic reactions in sensitive individuals.</td>
</tr>
</tbody>
</table>

### 12. Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Avoid release to the environment. The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxicity</td>
<td>Very toxic to aquatic organisms.</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>There are no data on the degradability of this product.</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>No data available on bioaccumulation.</td>
</tr>
<tr>
<td>Mobility in soil</td>
<td>Mobility</td>
</tr>
<tr>
<td>Other adverse effects</td>
<td>Other adverse effects</td>
</tr>
<tr>
<td></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### 13. Disposal considerations
TITANIUM PUTTY (Ti) RESIN.

**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

14. **Transport information**

**General**
No other information known.

**UN Number**

| UN No. (TDG) | 3082 |
| UN No. (IMDG) | 3082 |
| UN No. (ICAO) | 3082 |
| UN No. (DOT) | 3082 |

**UN proper shipping name**

| Proper shipping name (TDG) | 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 )) |
| Proper shipping name (DOT) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700 )) |

**Transport hazard class(es)**

| TDG class | 9 |
| TDG label(s) | 9 |
| IMDG Class | 9 |
| ICAO class/division | 9 |

**Transport labels**

**Packing group**

| TDG Packing Group | III |
| IMDG packing group | III |
| ICAO packing group | III |
| DOT packing group | III |

**Environmental hazards**
TITANIUM PUTTY (Ti) RESIN.

Environmentally Hazardous Substance

Special precautions for user
EmS F-A, S-F

Transport in bulk according to
Annex II of MARPOL 73/78
and the IBC Code
No information required.

15. Regulatory information

16. Other information

Revision date 4/4/2018
Revision 20
Supersedes date 4/25/2017

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.