SAFETY DATA SHEET
Chockfast Orange Resin

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

1.1. Product identifier
Product name: Chockfast Orange Resin
Product number: 1011R, 1010U resin, 1020U resin
REACH registration notes: CAS 25068-38-6: 01-2119456619-26-XXXX

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 a sensitising substance. May cause sensitisation or allergic reactions in sensitive individuals.

Environmental: The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

2.2. Label elements
Pictogram

Signal word: Warning
Chockfast Orange 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.
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.
P501 Dispose of contents/ container in accordance with national regulations.

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

Contains
EPOXY RESIN (Number average MW <= 700 ), REACTION PRODUCT: BISPHENOL F-(EPICHLORHYDRIN);EPOXY RESIN

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.

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>EC number: 500-033-5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irrit. 2 - H315</td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
</tr>
<tr>
<td>Skin Sens. 1 - H317</td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REACTION PRODUCT: BISPHENOL F-(EPICHLORHYDRIN);EPOXY RESIN</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 28064-14-4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irrit. 2 - H315</td>
</tr>
<tr>
<td>Eye Irrit. 2 - H319</td>
</tr>
<tr>
<td>Skin Sens. 1 - H317</td>
</tr>
<tr>
<td>Aquatic Chronic 2 - H411</td>
</tr>
</tbody>
</table>

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Avoid contact with eyes. Consult a physician for specific advice.

Inhalation
Remove affected person from source of contamination. If throat irritation or coughing persists, proceed as follows. Get medical attention. Show this Safety Data Sheet to the medical personnel.

Ingestion
Rinse mouth thoroughly with water. Give plenty of water to drink. Give milk instead of water if readily available. Keep affected person under observation. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes. 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. Get medical attention if any discomfort continues.

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. Control run-off water by containing and keeping it out of sewers and watercourses.

Special protective equipment for firefighters
Wear chemical protective suit. Use air-supplied respirator, gloves and protective goggles.

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. Avoid spilling. 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
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. Absorb spillage with non-combustible, absorbent material.
Chockfast Orange Resin

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  Wear protective clothing as described in Section 8 of this safety data sheet. Do not eat, drink or smoke when using the product. 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. Provide adequate ventilation.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions  Store in tightly-closed, original container in a 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

Ingredient comments  WEL = Workplace Exposure Limits

**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.

Eye/face protection  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  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. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Gloves made from the following material may provide suitable chemical protection: Butyl rubber. Nitrile rubber. Neoprene. Polyvinyl chloride (PVC).

Other skin and body protection  Wear apron or protective clothing in case of contact.

Hygiene measures  Provide eyewash station and safety shower. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.
Chockfast Orange Resin

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>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Orange.</td>
</tr>
<tr>
<td>Odour</td>
<td>No characteristic odour.</td>
</tr>
<tr>
<td>pH</td>
<td>pH (concentrated solution): 7</td>
</tr>
<tr>
<td>Flash point</td>
<td>254°C Closed cup.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>0.03 mm Hg @ °C</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.6 @ 20°C</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>300°C</td>
</tr>
</tbody>
</table>

9.2. Other information

Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity


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.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong acids. Amines.

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

Skin contact Irritating to skin. May cause sensitisation by skin contact. May cause sensitisation or allergic reactions in sensitive individuals.
Chockfast Orange Resin

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
The product contains a substance which is harmful to aquatic organisms and which may cause long-term adverse effects in the aquatic environment. Avoid releasing into the environment.

12.1. Toxicity
Toxicity
Very toxic to aquatic organisms.

Ecological information on ingredients.

<table>
<thead>
<tr>
<th>EPOXY RESIN (Number average MW &lt;= 700 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute aquatic toxicity</td>
</tr>
<tr>
<td>Acute toxicity - fish</td>
</tr>
<tr>
<td>Acute toxicity - aquatic invertebrates</td>
</tr>
<tr>
<td>Acute toxicity - aquatic plants</td>
</tr>
<tr>
<td>Acute toxicity - microorganisms</td>
</tr>
<tr>
<td>Chronic aquatic toxicity</td>
</tr>
<tr>
<td>Chronic toxicity - aquatic invertebrates</td>
</tr>
</tbody>
</table>

REACTION PRODUCT: BISPHENOL F-(EPICHLORHYDRIN);EPOXY RESIN

| Acute aquatic toxicity                 |
| Acute toxicity - fish                  | LC₅₀, 96 hours: 1-10 mg/l, Fish |
| Acute toxicity - aquatic invertebrates | EC₅₀, 48 hours: 1-10 mg/l, Daphnia magna |
| Acute toxicity - aquatic plants        | IC₅₀, 72 hours: 1-10 mg/l, Algae |

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

Ecological information on ingredients.

<table>
<thead>
<tr>
<th>EPOXY RESIN (Number average MW &lt;= 700 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
</tr>
<tr>
<td>The product is not readily biodegradable.</td>
</tr>
<tr>
<td>Biodegradation</td>
</tr>
</tbody>
</table>
Chockfast Orange Resin

Bioaccumulative potential  No data available on bioaccumulation.

Ecological information on ingredients.

**EPOXY RESIN (Number average MW <= 700 )**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioaccumulative potential</td>
<td>BCF: 100 - 3000</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>log Pow: 3.242</td>
</tr>
</tbody>
</table>

**REACTION PRODUCT: BISPHENOL F-(EPICHLORHYDRIN);EPOXY RESIN**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partition coefficient</td>
<td>log Pow: 3-5</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

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

Ecological information on ingredients.

**EPOXY RESIN (Number average MW <= 700 )**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobility</td>
<td>Not considered mobile.</td>
</tr>
<tr>
<td>Adsorption/desorption coefficient</td>
<td>Supplier's information. Water - Koc: 1800 - 4400 @ °C</td>
</tr>
<tr>
<td>Henry's law constant</td>
<td>4.93E-05 Pa m³/mol @ 25°C</td>
</tr>
</tbody>
</table>

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.

Ecological information on ingredients.

**EPOXY RESIN (Number average MW <= 700 )**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results of PBT and vPvB assessment</td>
<td>This substance is not classified as PBT or vPvB according to current EU criteria.</td>
</tr>
</tbody>
</table>

12.6. Other adverse effects

Other adverse effects  Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General information</td>
<td>Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.</td>
</tr>
<tr>
<td>Disposal methods</td>
<td>Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.</td>
</tr>
<tr>
<td>Waste class</td>
<td>08 04 99</td>
</tr>
</tbody>
</table>

SECTION 14: Transport information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).</td>
</tr>
<tr>
<td>Road transport notes</td>
<td>Refer to the Dangerous Goods List for information on any Special Provisions 375.</td>
</tr>
<tr>
<td>Rail transport notes</td>
<td>Refer to the Dangerous Goods List for information on any Special Provisions 375.</td>
</tr>
</tbody>
</table>
Chockfast Orange Resin

Sea transport notes
Refer to the Dangerous Goods List for information on any Special Provisions IMDG 2.10.2.7.

Air transport notes
Refer to the Dangerous Goods List for information on any Special Provisions 375.

14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group
14.5. Environmental hazards
14.6. Special precautions for user
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 05/11/2018
Revision 12
Supersedes date 05/04/2018
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.