SAFETY DATA SHEET
ALUMINIUM LIQUID (F2) RESIN

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

1.1. Product identifier
Product name ALUMINIUM LIQUID (F2) RESIN
Product number X0011

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@itwp.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
ALUMINIUM LIQUID (F2) 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.

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

Contains
EPOXY RESIN (Number average MW <= 700 ), OXIRANE, MONO [(C12-14-ALKYLOXY)METHYL] DERIVS

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>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>OXIRANE, MONO [(C12-14-ALKYLOXY)METHYL] DERIVS</th>
<th>1-5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 68609-97-2</td>
<td></td>
</tr>
</tbody>
</table>

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
ALUMINIUM LIQUID (F2) RESIN

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.

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.

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

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.
ALUMINIUM LIQUID (F2) RESIN

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions
Provide adequate ventilation. 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

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

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. Change work clothing daily before leaving workplace. 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.
ALUMINUM LIQUID (F2) 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>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous liquid.</td>
</tr>
<tr>
<td>Colour</td>
<td>Light (or pale). Grey.</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight.</td>
</tr>
<tr>
<td>pH (concentrated solution)</td>
<td>7.0 @ 20 ºC</td>
</tr>
<tr>
<td>Melting point</td>
<td>n/d°C</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>&gt;204.4°C @</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 93.3°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>&lt;&lt;1 (butyl acetate =1)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt;1</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.92 @ 20 ºC</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Slightly soluble in water.</td>
</tr>
</tbody>
</table>

9.2. Other information

Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

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. Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid

Avoid contact with the following materials: Strong oxidising agents. Strong acids. Amines.

10.6. Hazardous decomposition products

Hazardous decomposition products


SECTION 11: Toxicological information

11.1. Information on toxicological effects
ALUMINIUM LIQUID (F2) RESIN

Skin contact
Irritating to skin. May cause sensitisation by skin contact. May cause sensitisation or allergic reactions in sensitive individuals. Prolonged contact may cause redness, irritation and dry skin.

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 entry
Inhalation Ingestion.

SECTION 12: Ecological Information

Ecotoxicity
Avoid releasing into 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

General
No other information known.

14.1. UN number
UN No. (ADR/RID) 3082
UN No. (IMDG) 3082
UN No. (ICAO) 3082
ALUMINIUM LIQUID (F2) RESIN

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 ))
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  •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
ALUMINIUM LIQUID (F2) RESIN

EU legislation

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

SECTION 16: Other information

<table>
<thead>
<tr>
<th>Revision date</th>
<th>03/04/2018</th>
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<tbody>
<tr>
<td>Revision</td>
<td>16</td>
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<tr>
<td>Supersedes date</td>
<td>27/04/2016</td>
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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.