1. Identification

Product identifier

Product name ALUMINIUM LIQUID (F2) RESIN
Product number X0011

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.
ALUMINIUM LIQUID (F2) 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.
P321 Specific treatment (see medical advice on this label).
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P333+P313 If skin irritation or rash occurs: 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.

Contains

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

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>30-60%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 25068-38-6</td>
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<table>
<thead>
<tr>
<th>Classification</th>
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<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>OXIRANE, MONO [(C12-14-ALKYLOXY)METHYL] DERIVS</th>
<th>1-5%</th>
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</thead>
<tbody>
<tr>
<td>CAS number: 68609-97-2</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Irrit. 2 - H315</td>
</tr>
<tr>
<td>Skin Sens. 1 - H317</td>
</tr>
</tbody>
</table>

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.
ALUMINIUM LIQUID (F2) RESIN

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.

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. 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.

6. Accidental release measures

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.

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 non-combustible, absorbent material. 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
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.

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).
ALUMINIUM LIQUID (F2) RESIN

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

8. Exposure Controls/personal protection

Ingredient comments
WEL = Workplace Exposure Limits

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 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
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.

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

Appearance
Viscous liquid.

Color
Light (or pale). Grey.

Odor
Slight.

pH
pH (concentrated solution): 7.0 @ 20 ºC

Melting point
n/d°C

Initial boiling point and range
>204.4°C @

Flash point
> 93.3°C

Evaporation rate
<<1 (butyl acetate =1)

Vapor density
>1
ALUMINIUM LIQUID (F2) RESIN

Relative density
1.92 @ 20 °C

Solubility(ies)
Slightly soluble in water.

Other information
Not available.

10. Stability and reactivity

Reactivity

Stability
Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions
Not available.

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.

Materials to avoid
Avoid contact with the following materials: Strong oxidizing agents. Strong acids. Amines.

Hazardous decomposition products

11. Toxicological information

Information on toxicological effects

Skin Contact
Irritating to skin. May cause sensitisation by skin contact. May cause sensitization 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 sensitization or allergic reactions in sensitive individuals.

Route of entry
Inhalation Ingestion.

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.

Toxicity
Very toxic to aquatic organisms.

Persistence and degradability

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

Bioaccumulative potential
Bio-Accumulative Potential
No data available on bioaccumulation.

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

Other adverse effects

Other adverse effects
Not available.
ALUMINIUM LIQUID (F2) RESIN

13. Disposal considerations

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
ALUMINIUM LIQUID (F2) RESIN

Environmentally Hazardous Substance

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

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

15. Regulatory information

16. Other information

Revision date 4/3/2018
Revision 16
Supersedes date 4/27/2016
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.