HEALTH AND SAFETY DATA SHEET
EPOXY RESIN FILM RF-464

1. IDENTIFICATION OF SUBSTANCE

Trade name: RF-464 Epoxy Resin Film
Supplier: PRF Composite Materials
3 Upton Road
Poole, Dorset
BH17 7AA
England

After hours no: 07785 501851

2. HAZARD IDENTIFICATION

Potential Health Hazards:
- Irritating to eyes and skin.
- May cause sensitisation by skin contact.

Effect on the Environment:
- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Classification:
- (1999/45) Xi; R36/38, R43, R52/53.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>EC No.</th>
<th>CAS No</th>
<th>Risk phrases</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bisphenol A Epoxy resin mw &lt; 700</td>
<td>NLP 500-033-5</td>
<td>25068-38-6</td>
<td>Xi, R36/38; R51/53, R43</td>
<td>15-75%</td>
</tr>
<tr>
<td>Solid Bisphenol A Epoxy resin</td>
<td>Polymer</td>
<td>25036-25-3</td>
<td>Xi; R36/38, N; R51/53, R43</td>
<td>10-25%</td>
</tr>
</tbody>
</table>

Additional information: *For the wording of the listed risk phrases refer to section 16.

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All statements, technical information and recommendations offered are only for consideration and evaluation. Whilst they are believed to be accurate they are not guaranteed and are provided without warranty of any kind. No undertaking is given that the goods/products supplied are fit for any particular purpose and the buyer/user should rely upon its own tests to establish the suitability of the goods/products for its particular purpose. The buyer/user shall ensure all risks and liabilities in connection therewith.
4. FIRST AID MEASURES

Symptoms and effects

Skin Contact:
This product is a skin sensitiser. Avoid direct contact. Remove contaminated clothing. Wash skin with plenty of soap and water. Do not use solvent. Wash clothing before re-use. If symptoms persist, seek medical advice.

Eye Contact:
Seek medical attention. Flush eye with water for at least 15 minutes holding eyelids apart.

Inhalation:
If inhalation of vapours occurs, remove casualty to fresh air. If symptoms persist, seek medical attention.

Ingestion:
Seek medical aid. If swallowed, wash out mouth thoroughly with water and give plenty of water to drink.

5. FIRE FIGHTING MEASURES

Suitable extinguishing agents: Water mist, Carbon Dioxide, Foam, Dry Powder

Unsuitable Extinguishing Media:
High pressure water jet.

Exposure Hazards:
Do not release chemically contaminated water into drains, soil or surface water. Sufficient measures must be taken to contain water used for extinguishing. Burning produces toxic fumes, oxides of carbon and nitrogen.

Special Protective Equipment for Fire-Fighters:
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Person-related precautions:
Avoid contact with skin, eyes and clothing.

Measures for environmental protection:
Prevent contamination of soil, drains and surface waters.

Measures for cleaning:
Place in a suitable container for disposal as hazardous waste. Recycle whenever possible.

7. HANDLING AND STORAGE

Handling:
Irritant, sensitising. Avoid skin and eye contact. Ensure good local ventilation. Do not eat, drink or smoke at the work place. Practise good housekeeping and personal hygiene. Do not breathe vapours when heat curing.

Storage:
Store at or below -18°C/0°F in a closed protective bag. Store by holding at both ends of the roll. Keep away from food and drink.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Technical Protective Measures: No special measures required.

Exposure Limits Values: 10 mg/m³ for dust generated when machining or finishing uncured or cured material.

Exposure Controls: Use engineering controls to keep curing oven/autoclave air out of the workplace.

Occupational Exposure Controls

Respiratory Protection: In case of insufficient ventilation wear suitable respiratory protection.

Hand Protection: Wear barrier cream and suitable gloves (not cotton). Butyl or nitrile rubber for example.

Eye Protection: Wear suitable goggles or safety glasses.

Skin Protection: Wear overalls and closed footwear in order to minimise skin contact.

Environmental Exposure Control: Uncured material should be disposed of as hazardous waste.

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information:

Appearance: Amber flexible film.

Odour: Slight.

Important Health, Safety and Environmental Information:

Flammability: Not flammable but will burn.

Flash point: Not applicable

Explosive Limits: Not applicable

Vapour Pressure: Not applicable

Density: Resin = 1.22 g/cc at 21°C

Solubility: Insoluble in water

Oxidising Properties: Not applicable

10. STABILITY AND REACTIVITY

Condition to avoid: Excessive Heat

Materials to avoid: Acids, strong bases and strong oxidising agents.

Hazardous Decomposition Products: Oxides of carbon, nitrogen, hydrogen cyanide and other toxic gases.

Other Information: Potential hazardous exothermic reaction when heated.
11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Acute Oral Toxicity</td>
<td>Not measured for this preparation</td>
</tr>
<tr>
<td>LD50 Acute Skin Toxicity</td>
<td>Not known</td>
</tr>
<tr>
<td>LC50 Acute Inhalation Toxicity</td>
<td>Not known</td>
</tr>
<tr>
<td>Eye Irritation</td>
<td>Irritant</td>
</tr>
<tr>
<td>Skin Irritation</td>
<td>Irritant</td>
</tr>
<tr>
<td>Respiratory Tract Irritation</td>
<td>Not known</td>
</tr>
<tr>
<td>Skin Sensitisation</td>
<td>Sensitising</td>
</tr>
<tr>
<td>Respiratory Sensitisation</td>
<td>Not known</td>
</tr>
<tr>
<td>Repeated-dose Toxicity</td>
<td>Not known</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Not believed to have any mutagenic effects</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not believed to have any carcinogenic effects</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Not believed to have any reproductive effects</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exotoxicity:</td>
<td>LC50 (Daphnia) 100 mg/l</td>
</tr>
<tr>
<td>Mobility:</td>
<td>Very low.</td>
</tr>
<tr>
<td>Persistence and Degradability:</td>
<td>Not readily biodegradable.</td>
</tr>
<tr>
<td>Bioaccumulative Potential:</td>
<td>Low</td>
</tr>
<tr>
<td>Other Adverse Effects:</td>
<td>Not known</td>
</tr>
</tbody>
</table>

Prevent contamination of soil, drains or surface water.

13. DISPOSAL CONSIDERATIONS

Uncured and cured material should be disposed of in accordance with Local and National Regulations. The material must not be allowed to enter the drains or watercourses. Recycle whenever possible.

Non-contaminated packaging should be treated as household waste or recyclable material.

14. TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN No.</td>
<td>N/A</td>
</tr>
<tr>
<td>Class</td>
<td>N/A</td>
</tr>
<tr>
<td>Proper Shipping Name</td>
<td>N/A</td>
</tr>
<tr>
<td>Packing Group</td>
<td>N/A</td>
</tr>
<tr>
<td>Marine Pollutant</td>
<td>N/A</td>
</tr>
<tr>
<td>Other Applicable Information</td>
<td>Not classified as Dangerous Goods for transport.</td>
</tr>
</tbody>
</table>
15. REGULATORY INFORMATION

Symbol

Contains

Bisphenol ‘A’ epoxy resin (MW < 700)
Solid Bisphenol A Epoxy Resin.

Risk Phrase(s)

R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R36/38 Irritating to eyes and skin.

Safeguard Phrase(s)

S28 After contact with skin, wash immediately with plenty of soap and water.
S36/37 Wear suitable protective clothing and gloves.
S61 Do not release to the environment. Refer to special instructions/safety data sheet.

Exceptional Labelling of Special Preparations:

Contains epoxy constituents. See information supplied by the manufacturer.

The provision of Safety Data Sheets comes under Regulation 5 of the Chemical Hazards Information and Packaging Regulations. This is in addition to the duties under the Health and Safety at Work At.

Users of products supplied within Great Britain are reminded to take appropriate measures to implement the Control of Substances Hazardous to Health Regulations; users outside of Great Britain are reminded to refer to their local legislation.

16. OTHER INFORMATION

Relevant R-phrases:

These R-phrases refer to section 2.

R36/38 Irritating to eyes and skin.
R43 May cause sensitization by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Allergic skin reaction may be caused by prolonged or repeated dermal contact with epoxy resins. RF-464 is based on a reactive resin/curative and may undergo an uncontrolled exothermic reaction. This may be accompanied by harmful fumes. The recommended curing procedures must be followed. If an uncontrolled exothermic reaction occurs, remove external heat sources and insulation. Use water spray or carbon dioxide fire extinguisher directly on the exotherming area to rapidly cool the area. Ideally these should be operated automatically or remotely to avoid exposure to hazardous fumes. If this is not possible, self-contained breathing apparatus must be worn.
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

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