Chemical Resin C.O.S.H.H data sheet


Chemical nature: organic peroxide – cure unsaturated polyester resin grout (in a sealed cartridge)

2. Composition/Ingredients
Contains: Unsaturated polyester resin in styrene, dibenzoyl peroxide, dibutyl phthalate and inert fillers.

<table>
<thead>
<tr>
<th>No</th>
<th>% w/w</th>
<th>CAS Number</th>
<th>Name</th>
<th>EEC Number</th>
<th>Symbol</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10-15</td>
<td>100-42-5</td>
<td>Styrene</td>
<td>601-026-00-0</td>
<td>Xn</td>
<td>R10,20,36,38</td>
</tr>
<tr>
<td>2</td>
<td>2-3</td>
<td>94-36-0</td>
<td>Dibenzoyl peroxide</td>
<td>2023276</td>
<td>Xi</td>
<td>R2,36,43,7</td>
</tr>
<tr>
<td>3</td>
<td>1-2</td>
<td>84-74-2</td>
<td>Dibutyl phthalate</td>
<td>2015574</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

3. Hazard Identification
Note: In use the product presents minimal risk as the material is largely contained within the cartridge system. Flammable; harmful by inhalation; irritating to eyes and skin; may cause sensitisation by skin contact.

4. First aid measures

Skin Contact
In case of skin contact, wipe off mechanically and wash afflicted areas thoroughly with soap and water.

Eye contact
Rinse carefully and thoroughly with water and seek medical advice.

Inhalation
Move to fresh air, rest in the half upright position, loosen clothing. Seek medical advice after prolonged exposure.

Ingestion
DO NOT induce vomiting because of risk of aspiration. Seek medical advice.

5. Fire Fighting Measures

SUITABLE EXTINGUISHING MEDIA
CO2, foam, dry powder.
UNSUITABLE EXTINGUISHING MEDIA
Halones
EXPOSURE HAZARDS
If involved in a fire, it will support combustion. Do not breath fumes. Wear suitable protective clothing. Cool closed containers with water.
6. Accidental Release Measures

PERSONAL PRECAUTIONS
For personal protection see section 8.
Remove sources of fire.
ENVIRONMENTAL PRECAUTIONS
Collect as much as possible in clean container for re-use or disposal.
Do not empty into drains.
METHODS FOR CLEANING
Sweep up into inert containers. Absorb the remainder with dry sand.

7. Handling and Storage

HANDLING
Observe the necessary precautionary measure for styrene. Ensure adequate ventilation. Do not inhale vapour. Avoid contact with skin and eyes.

STORAGE
Store upright in cool, well ventilated conditions away from direct sunlight.

8. Exposure Controls/Personal Protection

TECHNICAL PROTECTIVE MEASURES
Provided by design of cartridge.

EXPOSURE CONTROL LIMITS
Styrene: 100ppm or 420mg/cu.m. (8h T.W.A.)
Dibenzoyl peroxide 5ml/cu.m. (8h T.W.A.)

RESPIRATORY PROTECTION
Provide adequate ventilation.
The usual precautionary measures for handling chemicals should be observed.

HAND PROTECTION
Wear suitable gloves of neoprene or synthetic rubber.

EYE PROTECTION
Wear eye/face protection

SKIN PROTECTION
Wear suitable protective clothing.
Launder clothes before use.
9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th></th>
<th>Base</th>
<th>Catalyst</th>
<th>Appearance</th>
<th>Base</th>
<th>Catalyst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point/Range</td>
<td>N/A</td>
<td>N/A</td>
<td>Paste</td>
<td>Paste</td>
<td>Paste</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>145 Deg C</td>
<td>Decomposes</td>
<td>Odour</td>
<td>Characteristic Styrene</td>
<td>Faint</td>
</tr>
<tr>
<td>Oxidisation Properties</td>
<td>N/A</td>
<td>N/A</td>
<td>Density</td>
<td>1.49 Typical</td>
<td>1.19 Typical</td>
</tr>
<tr>
<td>Autoflamibility</td>
<td>-</td>
<td>-</td>
<td>Flashpoint</td>
<td>32 deg C</td>
<td>Above SADT</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
<td>Insoluble</td>
<td>Ignition</td>
<td>490 deg C</td>
<td>380 deg C</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>7m bar@20Deg C</td>
<td>-</td>
<td>Viscosity</td>
<td>Thixotropic</td>
<td>Thixotropic</td>
</tr>
<tr>
<td>SADT</td>
<td>-</td>
<td></td>
<td>Explosive limits</td>
<td>1.1% by volume (lower)</td>
<td>8.0% by volume (upper)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

Product is stable and non reactive whilst in cartridge.

THERMAL DECOMPOSITION
The catalyst undergoes self accelerating decomposition at and above 50 degrees C
CONDITIONS TO AVOID
Temperatures above 30 degrees C; exposure to sunlight; naked flame
MATERIALS TO AVOID
Direct contact with acids, alkalis, reducing agents or heavy metal salts.
HAZARDOUS DECOMPOSITION PRODUCTS
Not determined.

11. Toxicology Information

LD 50 Acute oral toxicity in rats: 5000mg/Kg
Special properties: In high concentration styrene has irritating effects on eyes and mucous membranes. Skin contact may cause skin irritation.

12. Ecological Information

Prevent contamination of soil, drains or surface water.
(Styrene) Acute toxicity; ECOO=72m/1
(Catalyst) acute toxicity (fish) 96h-Le50=2.0mg/1 (Poecilia Reticulata)
(Styrene) Acute toxicity (fish) 48h-Le50=17mg L (Leuciscus Idus)

13. Disposal Conditions

Controlled incineration according to local authority regulations.

14. Transport Information

Store away from foodstuffs
RID/ARD=class RN No. 301D
IMDG/Code=3.3, Un 1866 (page 3379)
IATA=3, 1866 III
Flashpoint=32 Degree C (Styrene)
Flammable; marine pollutant; irritating skin and eyes; harmful by inhalation.
15. Regulatory Information

Symbol Xn-Harmful
Contains Resin solution in flammable solvent (Styrene)
R10 Flammable
R20 Harmful by irritation
R36/38 Irritating to eyes and skin
S23 Do not breathe vapour

The product is supplied in sealed containers. Although there is no requirement in normal use to work with the constituent raw materials, they are subject to occupational exposure limits (OEL) or occupational exposure standards (OES) as follows:

<table>
<thead>
<tr>
<th>Substance</th>
<th>% by weight</th>
<th>Long term exposure limit (Sh TWA)</th>
<th>Short term exposure limit (10min TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Styrene</td>
<td>10-15</td>
<td>100ppm (420mg/cu.m.)</td>
<td>250ppm (1050mg cu.m.)</td>
</tr>
<tr>
<td>Dibenzoyl Peroxide</td>
<td>2-3</td>
<td>5.0mg/cu.m.</td>
<td></td>
</tr>
</tbody>
</table>

16. Other information

Further advice and assistance may be obtained from our offices: Tel: 01254 916 544

Date produced: 28th April 2006

The product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulations. The information contained herein in based on the present state of our knowledge and is intended to describe the product from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

J.E.B