



MSDS Ref:

**Triton Systems**  
Units 3-5 Crayford Commercial Centre, Greyhound Way  
Crayford, Kent DA1 4HF  
Tel: 01322 318830 Fax: 01322 524017  
[www.tritonsystems.co.uk](http://www.tritonsystems.co.uk) [info@tritonsystems.co.uk](mailto:info@tritonsystems.co.uk)

Publication date  
26/02/2002

Revision date  
12/08/2011

## 1. PRODUCT NAME: **TRISEAL - RESIN (Part 1)**

### 2. HAZARD IDENTIFICATION



Irritant  
Irritating to skin and eyes.  
May cause sensitisation by skin contact.  
Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

### 3. COMPOSITION

| Hazardous ingredient           | CAS No.                  | EC No.  | Weight | %    | Symbols       | Risk Phrases      |
|--------------------------------|--------------------------|---------|--------|------|---------------|-------------------|
| Bisphenol A and F epoxy Resins | 25068-38-6               | 2683582 | }      | <60% | Xi (Irritant) | R36/38,43         |
| Alkylglycidylether             | 54208-63-8<br>68081-84-5 |         |        | <15% | Xi (Irritant) | R36/38,R43,R51/53 |

### 4. FIRST AID

|                    |  |
|--------------------|--|
| CONTACT WITH SKIN: | Wash with plenty of soap and water.                              |
| CONTACT WITH EYES: | Wash out with water for several minutes and seek medical advice. |
| INGESTION:         | Seek medical advice in the event of discomfort.                  |
| INHALATION:        | Remove to fresh air if fumes cause irritation of nose or throat. |
| OTHER INFORMATION: | May aggravate existing respiratory problems.                     |

### 5. FIRE-FIGHTING MEASURES

|                               |  |
|-------------------------------|--|
| SUITABLE EXTINGUISHING MEDIA: | Dry powder or foam. For small fires use CO <sub>2</sub> Never use water jet. |
| SPECIAL PROTECTIVE EQUIPMENT: | For fires in confined spaces, use breathing apparatus.                       |

### 6. ACCIDENTAL RELEASE MEASURES

|                            |   |
|----------------------------|---|
| PERSONAL PRECAUTIONS:      | Wear suitable protective clothing appropriate to the amount involved, which may include eye/face protection, PVC or synthetic rubber gloves, protective footwear, overalls. |
| ENVIRONMENTAL PRECAUTIONS: | Do not allow to enter public sewers and watercourses.<br>If this cannot be avoided, inform the appropriate authority.   |
| CLEAN-UP PROCEDURES        | Absorb in dry sand or earth or similar absorbent and shovel into a suitable closed container for disposal according to item 13.   |

## 7. HANDLING AND STORAGE

### HANDLING PRECAUTIONS

Observe good hygiene standards and minimise skin contact.  
Wear suitable protective clothing according to item 8.  
Avoid open flames and sources of ignition.

### STORAGE INFORMATION

Keep containers tightly closed in a cool place, out of direct sunlight. Keep stored well ventilated.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION



Where prolonged or repeated exposure is likely, protective clothing should be worn, including eye protection and PVC or synthetic rubber gloves.  
Wash hands and exposed skin before meals and after work. Do not eat, drink or smoke whilst handling the product.  
Do not wear contaminated clothing. Ventilate confined spaces thoroughly.

### EXPOSURE LIMITS

None prescribed in EH40  
Slight irritant, not considered hazardous.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                          |              |
|--------------------------|--------------|
| Appearance               | Red Liquid   |
| Odour                    | Faint        |
| pH                       | N/A          |
| Boiling Point            | 200°C        |
| Melting Point            | Not Relevant |
| Flash Point              | >150C        |
| Autoignition temperature | No data      |
| Explosive properties     | No data      |

|                       |                    |
|-----------------------|--------------------|
| Oxidising Properties  | None               |
| Vapour Pressure       | No Data            |
| Relative density      | 1.13 (25°C)        |
| Bulk density          | Not Relevant       |
| Viscosity             | No data            |
| Solubility            | Insoluble in water |
| Partition Coefficient | No data            |
| Other data            |                    |

## 10. STABILITY/REACTIVITY

### STABILITY:

Stable under normal conditions of use.

### CONDITIONS TO AVOID:

High temperatures (degrades resin).

### MATERIALS TO AVOID:

Strong oxidising agents, strong acids and bases.

## 11. TOXICOLOGICAL INFORMATION

No available data on acute toxicity. Irritating to eyes. A mild skin irritant and mild sensitising agent.

## 12. ECOLOGICAL INFORMATION

### MOBILITY:

Low soil absorption

### DEGRADABILITY:

Not easily biodegradable.

### ACCUMULATION:

There is potential for bioaccumulation. Biomagnification is unlikely.

### ECOTOXICITY:

Toxic to aquatic organisms.



## 13. DISPOSAL CONSIDERATIONS

|                        |  |
|------------------------|--|
| DISPOSAL OF PRODUCT:   | Chemical residues are normally regarded as Special Waste. Dispose of in accordance with local and national regulations (incinerate or landfill). |
| DISPOSAL OF PACKAGING: | Uncleaned packaging should be treated as for the product.  |

## 14. TRANSPORT INFORMATION

|                      |   |
|----------------------|---|
| UN NO.               | 3082  |
| PROPER SHIPPING NAME | Liquid epoxy resin  |
| ADR/RID              | Class 9 No/letter:11-C                                      |
| IMCO                 |   |
|                      | MFAG Table No.  |
|                      | EmS No.   |
| IATA/IACO            | Class 9 Environmentally hazardous substance, liquid, n.o.s. |
| PACKING GROUP        | III   |
| LABEL                | No hazard label   |

## 15. REGULATORY INFORMATION

CLASSIFICATION Irritant

### LABEL INFORMATION

R36/38: Irritating to eyes and skin.

R43: May cause sensitisation by skin contact.

S28: After contact with skin, wash immediately with plenty of water.

S37/39: Wear suitable gloves and eye/face protection.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S61: Avoid release to the environment. Refer to special instructions/Safety data sheets.

Refer to other relevant legislation such as the Health and Safety at Work etc Act (HSWA), THE Control of Substances Hazardous to Health Regulations (COSHH), the Environment Protection Act and the Control of Pollution Act.

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risk as Required by health and safety legislation.

## 16. OTHER INFORMATION

The information contained in this data sheet is to the best of our knowledge accurate at the date of publication, but we cannot accept responsibility that it is sufficient or correct in all cases.

The data contained herein does not constitute a specification. Such information is available from the technical data sheet for the product.

*Abbreviations: OES – occupational exposure standard. STEL – short-term exposure limit. LTEL – long term exposure limit. TWA – time weighted (8 hour) average. LEL – lower explosive limit. UEL – upper explosive limit.*



**CORROSIVE**

MSDS Ref:

Publication date  
26/02/2002

**Triton Systems**  
Units 3-5 Crayford Commercial Centre, Greyhound Way  
Crayford, Kent DA1 4HF  
Tel: 01322 318830 Fax: 01322 524017  
[www.tritonsystems.co.uk](http://www.tritonsystems.co.uk) [info@tritonsystems.co.uk](mailto:info@tritonsystems.co.uk)

Revision date  
12/08/2011

## 1. PRODUCT NAME: **TRISEAL - HARDENER (Part 2)**

## 2. HAZARD IDENTIFICATION



**Corrosive**

Corrosive – Causes Burns.  
Harmful if swallowed.  
May cause sensitisation by skin contact.

## 3. COMPOSITION

| Hazardous ingredient                     | CAS No.    | Weight % | Symbols       | Risk Phrases     |
|--|------------|----------|---------------|------------------|
| Tris-2,4,6(Dimethyl amino methyl) phenol | 90-72-2    | <5.0%    | Xn            | R22-36/38        |
| Bis(Dimethyl amino methyl) phenol        | 71074-89-0 | <1.0%    | Xn            | R22-36/38        |
| Alkylated polyamine adduct               |            | <90%     | C (Corrosive) | R21/22,34, 42/43 |

## 4. FIRST AID

|                    |  |
|--------------------|--|
| CONTACT WITH SKIN: | Wash with plenty of soap and water. If irritation persists, obtain medical advice. |
| CONTACT WITH EYES: | Wash out with water for several minutes and seek medical advice.                   |
| INGESTION:         | Give plenty of water – if possible, charcoal slurry. Do not induce vomiting.       |
| INHALATION:        | Remove to fresh air. If symptoms persist, seek medical advice.                     |
| OTHER INFORMATION: | Treat symptomatically.   |

## 5. FIRE-FIGHTING MEASURES

|                               |  |
|-------------------------------|--|
| SUITABLE EXTINGUISHING MEDIA: | Dry powder, fog or foam. For small fires use CO <sub>2</sub> Do not use high pressure water jet. |
| SPECIAL PROTECTIVE EQUIPMENT: | Full protective equipment. Toxic and irritant fumes may be produced.                             |

## 6. ACCIDENTAL RELEASE MEASURES

|                            |   |
|----------------------------|---|
| PERSONAL PRECAUTIONS:      | Wear suitable protective clothing appropriate to the amount involved, which may include eye/face protection, PVC or synthetic rubber gloves, protective footwear, overalls. Avoid contact with eyes and skin. |
| ENVIRONMENTAL PRECAUTIONS: | Do not allow to enter public sewers and watercourses. If this cannot be avoided, inform the appropriate authority.  |
| CLEAN-UP PROCEDURES:       | Absorb in dry sand or earth or similar absorbent and shovel into a suitable closed container for disposal according to item 13.   |

## 7. HANDLING AND STORAGE

### HANDLING PRECAUTIONS:

Ensure adequate ventilation in work areas. Keep away from sources of ignition – no smoking. Avoid contact with eyes and skin. Avoid inhaling vapour, ensure good ventilation.

### STORAGE INFORMATION:

Keep containers tightly closed in a cool place, out of direct sunlight. Keep stored well ventilated. Keep away from food and feeding stuffs.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION



Wear protective clothing, including eye protection and PVC or synthetic/rubber gloves.  
Wash hands and exposed skin before meals and after work. Do not eat, drink or smoke whilst handling the product.

### EXPOSURE LIMITS

None prescribed in EH40

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|                          |               |
|--------------------------|---------------|
| Appearance               | Brown Liquid  |
| Odour                    | Amine-Like    |
| pH                       | >7 (in water) |
| Boiling Point            | Decomposes    |
| Melting Point            | Not Relevant  |
| Flash Point              | >100°C (CC)   |
| Autoignition temperature | No data       |
| Explosive properties     | No data       |

|                       |  |
|-----------------------|--|
| Oxidising Properties  | None   |
| Vapour Pressure       | <8 hpa @ 25°C                                  |
| Relative density      | 1.01 (25°C)                                    |
| Bulk density          | Not Relevant                                   |
| Viscosity             | No data  |
| Solubility            | Partially miscible with water                  |
| Partition Coefficient | No data  |
| Other data            | Avoid contact with strong acids and oxidizers. |

## 10. STABILITY/REACTIVITY

### STABILITY:

Stable under normal conditions of use.

### CONDITIONS TO AVOID:

High temperatures, formation of aerosols, static discharges.

### MATERIALS TO AVOID:

Strong oxidising agents, acids and bases.

## 11. TOXICOLOGICAL INFORMATION

LD<sub>50</sub> (rat, oral): > 5000mg/kg (by calculation). Eye irritation (rabbit): corrosive. Skin irritation (rabbit): corrosive.

Dermal sensitisation (guinea pig): sensitiser

## 12. ECOLOGICAL INFORMATION

### MOBILITY:

Likely to be mobile in soil.

### DEGRADABILITY:

Readily biodegradable.

### ACCUMULATION:

There is little potential for bioaccumulation. Biomagnification is unlikely.

### ECOTOXICITY:

Harmful to aquatic organisms:

### 13. DISPOSAL CONSIDERATIONS

|                        |  |
|------------------------|--|
| DISPOSAL OF PRODUCT:   | Chemical residues are normally regarded as Special Waste. Incinerate in compliance with the Environmental Protection Act 1990 (Process Guidance Note IPR5/1) |
| DISPOSAL OF PACKAGING: | As for the product.  |

### 14. TRANSPORT INFORMATION

|                      |                         |
|----------------------|-------------------------|
| UN NO.               | 2735                    |
| PROPER SHIPPING NAME | Class 8. Item 53(b)     |
| ADR/RID              | Class 8. IMDG Code page |
| IMCO                 | MFAG Table No. 320      |
| IATA/IACO            | EmS No. 8-05            |
| PACKING GROUP        | Class 8                 |
| LABEL                | 3                       |
|                      | Corrosive               |



### 15. REGULATORY INFORMATION

|                |           |
|----------------|-----------|
| CLASSIFICATION | Corrosive |
|----------------|-----------|

#### LABEL INFORMATION

R34: Causes burns.

R21/22: Harmful in contact with skin and if swallowed.

R42/43: May cause sensitisation by inhalation and skin contact.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.

S28: After contact with skin, wash immediately with plenty of water and mild soap.

Refer to other relevant legislation such as the Health and Safety at Work etc Act (HSWA), THE Control of Substances Hazardous to Health Regulations (COSHH), the Environment Protection Act and the Control of Pollution Act.

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risk as required by health and safety legislation.

### 16. OTHER INFORMATION

The information contained in this data sheet is to the best of our knowledge accurate at the date of publication, but we cannot accept responsibility that it is sufficient or correct in all cases.

The data contained herein does not constitute a specification. Such information is available from the technical data sheet for the product.

*Abbreviations: OES – occupational exposure standard. STEL – short-term exposure limit. LTEL – long term exposure limit. TWA – time weighted (8 hour) average. LEL – lower explosive limit. UEL – upper explosive limit.*