



*Chemical Manufacturing Co. Ltd.*

**C.O.S.H.H. PACK**

**STRUCTURAL  
REPAIR**

# **SECTION 5 :**

## **STRUCTURAL REPAIR.**

- TRIMOL 15
- TRIMOL 23
- TRIGROUT EXTRA
- TRIFIX ADHESIVE

**Irritant**

**Triton Chemical Manufacturing Co. Ltd.**  
 129 Felixstowe Road, Abbeywood, London SE2 9SG  
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MSDS Ref: TR  
300Publication date  
4/4/97

Revision date

1. PRODUCT NAME: **TRIMOL RESINS 15, 34, 35, 36, 40, 41**

**2. COMPOSITION**

Hazardous ingredient	CAS Nos.	Weight, %	Symbols	Risk Phrases
Bisphenol A and F epoxy Resins, diglycidyl ethers	25068-38-6, 68609-97-2, 28064-14-4	100	Xi (Irritant)	R36/38,43,51/53

**3. HAZARD IDENTIFICATION****Irritant**

Irritant  
 Irritating to skin and eyes

**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 and overalls.
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(Contd.).

**6.ACCIDENTAL RELEASE MEASURES** (contd.)

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 absorbents 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.
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, boots 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	Clear, golden liquid	Oxidising properties	None
Odour	Faint	Vapour pressure	1Pa (20°C)
pH	7 (50% suspension in water)	Relative density	1.2-1.13 (15°C)
Boiling point	Decomposes	Bulk density	Not Relevant
Melting point	Not Relevant	Viscosity	No data
Flash point	>150°C	Solubility	Insoluble in water
Autoignition temperature	No data	Partition coefficient	No data
Explosive properties	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, acids and bases. Excess of hardener (uncontrolled polymerisation reaction).

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## 11. TOXICOLOGICAL INFORMATION

Not available data on acute toxicity. Irritating to eyes. A mild skin irritant and mild sensitising agent.

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## 12. ECOLOGICAL INFORMATION

MOBILITY	Low soil absorption.
DEGRADABILITY	Not easily biodegradable
ACCUMULATION	There is potential for bioaccumulation. Biomagnification is unlikely.
ECTOTOXICITY	Toxic to aquatic organisms: (TLm96: fish 1.2mg/litre, Daphnia 2.7 mg/litre, algae 9.4mg/litre)

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## 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.

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## 14. TRANSPORT INFORMATION

UN No.	None assigned
PROPER SHIPPING NAME	Liquid epoxy resin
ADR/RID	Not classified as hazardous
IMCO	Not classified as hazardous MFAG Table No. EmS No.
IATA/IACO	Not classified as hazardous
PACKING GROUP	
LABEL	No hazard label

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## 15.REGULATORY INFORMATION

CLASSIFICATION Irritant

### LABEL INFORMATION

S24: Irritating to eyes and skin.

S26: 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.

Refer to other relevant legislation such as 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.

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## 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.*

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Non-hazardous

MSDS Ref: TR  
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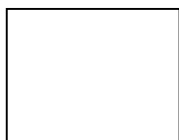
**1.PRODUCT NAME: TRIMOL 15 FILLER**

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**2. COMPOSITION**

An inert, light-weight inorganic filler consisting of aluminosilicate glass of particle size between 5 and 300 micrometres.

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**3.HAZARD IDENTIFICATION**

There are no particular hazards associated with this product in normal use.

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**4.FIRST AID**

CONTACT WITH SKIN	Wash with plenty of water or soap and water.
CONTACT WITH EYES	Wash out with water for several minutes. Seek medical advice.
INGESTION	Not likely to cause any adverse effects in the amounts which could be taken.
INHALATION	Remove to fresh air.

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**OTHER INFORMATION**

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**5.FIRE-FIGHTING MEASURES**

SUITABLE EXTINGUISHING MEDIA	As appropriate to surrounding fire
SPECIAL PROTECTIVE EQUIPMENT	No particular requirements

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**6.ACCIDENTAL RELEASE MEASURES**

PERSONAL PRECAUTIONS	Wear respiratory protection if large amounts of dust are generated.
ENVIRONMENTAL PRECAUTIONS	No environment hazard.
CLEAN-UP PROCEDURES	Sweep up and place in container for re-use or disposal to landfill.

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## 7. HANDLING AND STORAGE

HANDLING PRECAUTIONS                      Observe normal industrial hygiene methods.

STORAGE INFORMATION                      Store in a cool, dry place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The quantity of the Filler in the trimol 15 pack is not likely to present a risk in handling, but eye protection and respiratory protection may be used if the filler is handled frequently or in large amounts.

EXPOSURE LIMITS                      OES: 10mg/m<sup>3</sup> total respirable dust (EH40)

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Light grey or buff powder	Oxidising properties	None
Odour	None	Vapour pressure	Not relevant
pH	Not relevant	Relative density	No data
Boiling point	Not relevant	Bulk density	350kg/m <sup>3</sup>
Melting point	1350°C	Viscosity	Not relevant
Flash point	Not combustible	Solubility	Insoluble in water
Autoignition temperature	Not relevant	Partition coefficient	Not relevant
Explosive properties	Not explosive	Other data	

## 10. STABILITY/REACTIVITY

STABILITY                                      Stable

CONDITIONS TO AVOID                      No special requirements

MATERIALS TO AVOID                      None

## 11. TOXICOLOGICAL INFORMATION

Not toxic

**12. ECOLOGICAL INFORMATION**

MOBILITY	Not mobile in the soil.
DEGRADABILITY	Inert, not biodegradable
ACCUMULATION	There is no likelihood of bioaccumulation or biomagnification.
ECTOTOXICITY	Not ecotoxic

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**13. DISPOSAL CONSIDERATIONS**

DISPOSAL OF PRODUCT:	Dispose of by landfill in a commercial site, in accordance with local and national regulations.
DISPOSAL OF PACKAGING:	As for product.

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**14. TRANSPORT INFORMATION**

Not regulated for transport by road, rail, sea or air.

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**15. REGULATORY INFORMATION**

CLASSIFICATION	Not classified as hazardous.
LABEL INFORMATION	None

Refer to other relevant legislation such as 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.

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**16. OTHER INFORMATION**

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*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.*

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**Corrosive**

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MSDS Ref: TR  
301Publication date  
4/4/97Revision date  
18/06/04

1. PRODUCT NAME: **TRIMOL HARDENER 15, 34, 35, 36**

## 2. COMPOSITION

Hazardous ingredient	CAS Nos.	EC No.	Weight, %	Symbols	Risk Phrases
Trimethylhexamethylene diamine	25620-58-0	247-134-8	100	C (Corrosive)	R22,34,43,52/53

## 3. HAZARD IDENTIFICATION

**Corrosive**

Corrosive – Causes burns  
 Harmful if swallowed  
 May cause sensitisation by skin contact  
 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 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 or foam. For small fires use CO <sub>2</sub> . Never use 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 which may include eye/face protection, PVC or synthetic rubber gloves, protective footwear and overalls. Avoid contact with skin, eyes and clothing.
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**6.ACCIDENTAL RELEASE MEASURES (contd.)**

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 absorbents 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. Handle and open container with care
STORAGE INFORMATION	Keep containers tightly closed in a cool place, out of direct sunlight. Keep store well ventilated. Keep away from food and feeding stuffs.

**8.EXPOSURE CONTROLS/PERSONAL PROTECTION**

Wear protective clothing, including eye protection, boots and PVC or synthetic rubber gloves. In case of insufficient ventilation, wear suitable respiratory protective equipment.

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	Clear, colourless liquid	Oxidising properties	None
Odour	Amine-like	Vapour pressure	6Pa (20°C)
pH	11.3 (50% in water)	Relative density	0.86-0.87 (20°C)
Boiling point	>200°C	Bulk density	Not Relevant
Melting point	Not Relevant	Viscosity	5mPa.s (25°)
Flash point	>108°C (CC)	Solubility	Miscible with water
Autoignition temperature	No data	Partition coefficient	No data
Explosive properties	No data	Other data	

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## 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.

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## 11. TOXICOLOGICAL INFORMATION

LD<sub>50</sub> (rat, oral): 910mg/kg. Eye irritation (rabbit): corrosive. Skin irritation (rabbit): corrosive.

Dermal sensitisation (guinea pig): sensitiser.

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## 12. ECOLOGICAL INFORMATION

MOBILITY	Avoid subsoil penetration
DEGRADABILITY	Not easily biodegradable
ACCUMULATION	There is potential for bioaccumulation. Biomagnification is unlikely.
ECTOTOXICITY	Toxic to aquatic organisms. (LC <sub>50</sub> (fish) 96h: 1000mg/litre, EC <sub>50</sub> (daphnia) 24h: 31.5mg/litre EC <sub>50</sub> (algae) 72h: 29.5mg/litre), IC <sub>50</sub> (bacteria) 3h: 100mg/litre.

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## 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:	Uncleaned packaging should be treated as for the product. After cleaning, can be landfilled.

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## 14. TRANSPORT INFORMATION

UN No.	2327
PROPER SHIPPING NAME	Trimethylhexamethylene diamines, solution
ADR/RID	Class 8. Item 53(c).
IMCO	Class 8. IMDG Code page 08243 MFAG Table No. 320 EmS No. 8.05
IATA/IACO	Class 8
PACKING GROUP	3
LABEL	Corrosive



## 15. REGULATORY INFORMATION

CLASSIFICATION Corrosive

### LABEL INFORMATION

R34: Causes burns

R22: Harmful if swallowed.

R43: May cause sensitisation by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

S45: In case of accident or if you feel unwell, seek medical advice (show the label where possible).

Refer to other relevant legislation such as 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.

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*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.*

---

**Irritant**

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MSDS Ref: TR  
303

Publication date  
11/4/97

Revision date

1. PRODUCT NAME: **TRIMOL 23 RESIN**

## 2. COMPOSITION

Hazardous ingredient	CAS Nos.	Weight, %	Symbols	Risk Phrases
Bisphenol A and F epoxy Resins, diglycidyl ethers	25068-38-6, 68609-97-2 28064-14-4	49	Xi (Irritant)	R36/38,43, 51/53

## 3. HAZARD IDENTIFICATION

**Irritant**

Irritant  
Irritating to skin and eyes

## 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 and overalls.
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(Contd.).

**6.ACCIDENTAL RELEASE MEASURES (contd.)**

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 absorbents 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.
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, boots 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	Black Paste	Oxidising properties	None
Odour	Faint	Vapour pressure	1Pa (20°C)
pH	7 (50% suspension in water)	Relative density	1.6 (15°C)
Boiling point	Decomposes	Bulk density	Not Relevant
Melting point	Not Relevant	Viscosity	Thixotropic
Flash point	>150°C	Solubility	Insoluble in water
Autoignition temperature	No data	Partition coefficient	No data
Explosive properties	No data	Other data	

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## 10. STABILITY/REACTIVITY

STABILITY	Stable under normal conditions of use.
CONDITIONS TO AVOID	High temperatures (degrades resin).
MATERIALS TO AVOID	Strong oxidising agents, acids and bases. Excess of hardener (uncontrolled polymerisation reaction).

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## 11. TOXICOLOGICAL INFORMATION

Not available data on acute toxicity. Irritating to eyes. A mild skin irritant and mild sensitising agent.

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## 12. ECOLOGICAL INFORMATION

MOBILITY	Low soil absorption.
DEGRADABILITY	Not easily biodegradable
ACCUMULATION	There is potential for bioaccumulation. Biomagnification is unlikely.
ECTOTOXICITY	Toxic to aquatic organisms (data for 100% resin): (TLm96: fish 1.2mg/litre, Daphnia 2.7 mg/litre, algae 9.4mg/litre)

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## 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.

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## 14. TRANSPORT INFORMATION

UN No.	None assigned
PROPER SHIPPING NAME	Liquid epoxy resin
ADR/RID	Not classified as hazardous
IMCO	Not classified as hazardous MFAG Table No. EmS No.
IATA/IACO	Not classified as hazardous
PACKING GROUP	
LABEL	No hazard label

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**Corrosive**

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MSDS Ref: TR  
302

Publication date  
4/4/97

Revision date

**1. PRODUCT NAME:****TRIMOL 23 HARDENER****2. COMPOSITION**

Hazardous ingredient	CAS Nos.	EC No.	Weight, %	Symbols	Risk Phrases
Trimethylhexamethylene diamine	25620-58-0	247-134-8	12	C (Corrosive)	R22,34,43,52/53

**3. HAZARD IDENTIFICATION****Corrosive**

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

**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 or foam. For small fires use CO <sub>2</sub> . Never use 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 and overalls.
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**6. ACCIDENTAL RELEASE MEASURES (contd.)**

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 absorbents 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. Handle and open container with care
STORAGE INFORMATION	Keep containers tightly closed in a cool place, out of direct sunlight. Keep store well ventilated. Keep away from food and feeding stuffs.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Wear protective clothing, including eye protection, boots and PVC or synthetic rubber gloves. In case of insufficient ventilation, wear suitable respiratory protective equipment.

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	White Paste	Oxidising properties	None
Odour	Amine-like	Vapour pressure	6Pa (20°C)
pH	11.3 (50% in water)	Relative density	1.4 (20°C)
Boiling point	Decomposes above 200°C	Bulk density	Not Relevant
Melting point	Not Relevant	Viscosity	Thixotropic
Flash point	>108°C (CC)	Solubility	Partially miscible with water
Autoignition temperature	No data	Partition coefficient	No data
Explosive properties	No data	Other data	

**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): 7600mg/kg (by calculation). Eye irritation (rabbit): corrosive. Skin irritation (rabbit): corrosive.  
 Dermal sensitisation (guinea pig): sensitiser.

**12. ECOLOGICAL INFORMATION**

MOBILITY	Avoid subsoil penetration
DEGRADABILITY	Not easily biodegradable
ACCUMULATION	There is potential for bioaccumulation. Biomagnification is unlikely.
ECTOTOXICITY	Toxic to aquatic organisms. Data for 100% amine: (LC <sub>50</sub> (fish) 96h: 1000mg/litre, EC <sub>50</sub> (daphnia) 24h: 31.5mg/litre EC <sub>50</sub> (algae) 72h: 29.5mg/litre), IC <sub>50</sub> (bacteria) 3h: 100mg/litre.

**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:	Uncleaned packaging should be treated as for the product. After cleaning, can be landfilled.

**14. TRANSPORT INFORMATION**

UN No.	2327
PROPER SHIPPING NAME	Trimethylhexamethylene diamines, solution
ADR/RID	Class 8. Item 53(c).
IMCO	Class 8. IMDG Code page 08243 MFAG Table No. 320 EmS No. 8.05
IATA/IACO	Class 8
PACKING GROUP	3
LABEL	Corrosive



## 15.REGULATORY INFORMATION

CLASSIFICATION Corrosive

### LABEL INFORMATION

R34:Causes burns

R22: Harmful if swallowed.

R43: May cause sensitisation by skin contact.

R52/53: Harmful to aquatic organisms, may cause long-term adverse affects in the aquatic environment.

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.

S45: In case of accident or if you feel unwell, seek medical advice (show the label where possible).

Refer to other relevant legislation such as 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.

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*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.*

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Irritant

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MSDS Ref: TR

Publication date

Revision date

312

06/11/2002


**1. PRODUCT NAME: TRITON TRI-GROUT EXTRA**
**2. COMPOSITION**

Hazardous ingredient	CAS No.	EC No.	Weight %	Symbols	Risk Phrases
Ordinary Portland cement	65997-15-1		<50	Xi (Irritant)	See section 15

Also contains silica flour, silica sand and other additives

**3. HAZARD IDENTIFICATION**


Irritant

 Irritant  
 Irritating to skin and eyes

**4. FIRST AID**

CONTACT WITH SKIN	Wash off with plenty of soap and water. Remove contaminated clothing.
CONTACT WITH EYES	Wash out with water for at least 15 minutes and seek medical advice without delay.
INGESTION	Wash out mouth with water and give plenty of water to drink. DO NOT INDUCE VOMITING.
INHALATION	Remove to fresh air. If nose or airways become inflamed, seek medical advice.
OTHER INFORMATION	Until the mixture has set, may cause both irritant and allergic contact dermatitis.

**5. FIRE-FIGHTING MEASURES**

SUITABLE EXTINGUISHING MEDIA	As appropriate to surrounding fire
SPECIAL PROTECTIVE EQUIPMENT	No particular requirement

## 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 and overalls, particularly during mixing operations.
ENVIRONMENTAL PRECAUTIONS	Contain the spillage and keep children away from the area.
CLEAN-UP PROCEDURES	Recover the spilt material in a dry state if possible. Minimise generation of airborne dust.

## 7. HANDLING AND STORAGE

HANDLING PRECAUTIONS	Observe good hygiene standards and minimise skin contact. Wear suitable protective clothing according to item 8.
STORAGE INFORMATION	Keep containers tightly closed in a cool place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION



When handling or mixing the product, 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 wear contaminated clothing.



**EXPOSURE LIMITS** Occupational exposure standard (8h TWA):  
10mg/m<sup>3</sup> total inhalable dust, 5mg/m<sup>3</sup> respirable dust

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Grey powder	Oxidising properties	None
Odour	None	Vapour pressure	Not relevant
pH	11, when wet.	Relative density	Not relevant
Boiling point	Not relevant	Bulk density	1300 kg/m <sup>3</sup>
Melting point	Not relevant	Viscosity	Not relevant
Flash point	None	Solubility	Very slightly soluble in water
Autoignition temperature	Not combustible	Partition coefficient	Not relevant
Explosive properties	None	Other data	

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## 10. STABILITY/REACTIVITY

STABILITY	Stable under normal conditions of use.
CONDITIONS TO AVOID	Damp (degrades product).
MATERIALS TO AVOID	No particular requirements.

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## 11. TOXICOLOGICAL INFORMATION

Severe eye irritant. Irritating to skin – the powder or its mixture with water may cause irritant dermatitis or burns, and traces of hexavalent chromium in the product may cause allergic dermatitis. Ingestion of small amounts is unlikely to cause any significant reaction, but large doses may result in irritation to the gastro intestinal tract.

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## 12. ECOLOGICAL INFORMATION

MOBILITY	Not mobile in soil.
DEGRADABILITY	Relatively inert.
ACCUMULATION	No potential for bioaccumulation or biomagnification.
ECOTOXICITY	Addition of cement-based products to water may cause the pH to rise, and they may therefore be toxic to aquatic life in some circumstances.

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## 13. DISPOSAL CONSIDERATIONS

DISPOSAL OF PRODUCT	Dispose of in accordance with local and national regulations (normally landfill), or to any place authorised to accept builders waste.
DISPOSAL OF PACKAGING	Packaging should be treated as for the product, or may be incinerated.

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## 14. TRANSPORT INFORMATION

UN NO.	None assigned
PROPER SHIPPING NAME	Portland cement mixture
ADR/RID	Not classified as hazardous
IMCO	Not classified as hazardous
ICAO/IATA	Not classified as hazardous
PACKING GROUP	
LABEL	No hazard label

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## 15. REGULATION INFORMATION

CLASSIFICATION Irritant

### LABEL INFORMATION:

CONTACT WITH WET MORTAR MAY CAUSE IRRITATION, DERMATITIS OR BURNS.

CONTACT BETWEEN THE POWDER AND BODY FLUIDS (eg Sweat or Eye Fluid) MAY ALSO CAUSE IRRITATION, DERMATITIS OR BURNS.

RISK OF SERIOUS DAMAGE TO EYES.

### READ ALL PRECAUTIONS BEFORE USE

The (COSHH) Control of Substances Hazardous to Health Regulations 1988 may apply to the use of this product at work. Engineering control of operator exposure must be used where reasonably practicable in addition to the following items of personal protective equipment.

WEAR SUITABLE PROTECTIVE CLOTHING, gloves and eye/face protection.

IN CASE OF CONTACT WITH EYES rinse immediately with plenty of water and seek medical advice.

AFTER CONTACT WITH SKIN, wash immediately with plenty of clean water.

KEEP OUT OF REACH OF CHILDREN.

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.

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## 16. OTHER INFORMATION

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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.*

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Irritant

**Triton Chemical Manufacturing Co. Ltd**

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Telephone: 020 8310 3929

Fax: 020 8312 0349

MSDS Ref:

TR305

Publication date

14/04/97

Revision date

1. PRODUCT NAME: **TRIFIX ADHESIVE - RESIN**

## 2. COMPOSITION

Hazardous ingredient	CAS No.	Weight %	Symbols	Risk Phrases
Bisphenol A and F epoxy Resins, diglycidyl	25068-38-6, 68609-97-2 28064-14-4	56	Xi (Irritant)	S24,S26,S28,S37/39

## 3. HAZARD IDENTIFICATION



Irritant

Irritant

Irritating to skin and eyes.

## 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.
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ENVIRONMENTAL PRECAUTIONS	Do not allow to enter public sewers and watercourses. If this cannot be avoided, inform the appropriate authority.
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(Contd.)

## 6. ACCIDENTAL RELEASE MEASURES (contd.)

**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	Beige, thixotropic liquid	Oxidising properties	None
Odour	Faint	Vapour pressure	1Pa (20°C)
pH	7 (50% suspension in water)	Relative density	1.7 (25°C)
Boiling point	Decomposes	Bulk density	Not relevant
Melting point	Not Relevant	Viscosity	No data
Flash point	>150C	Solubility	Insoluble in water
Autoignition temperature	No data	Partition coefficient	No data
Explosive properties	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.  
Excess of hardener (uncontrolled polymerisation reaction)



## 16. OTHER INFORMATION

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*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.*

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**Corrosive**

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 Telephone: 020 8310 3929  
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MSDS Ref:  
TR306

Publication date  
14/04/97

Revision date

## 1. PRODUCT NAME: **TRIFIX ADHESIVE - HARDENER**

### 2. COMPOSITION

Hazardous ingredient	CAS No.	EC No.	Weight %	Symbols	Risk Phrases
Diethylene triamine	111-40-0	203-865-4	7.3	C (Corrosive)	R21/22,34,43
Triphenyl phosphite	101-02-0	202-908-4	10.3	Xi (Irritant)	R36/38
Alkylated polyamine adduct			30.6	C (Corrosive)	R21/22,34,43

### 3. HAZARD IDENTIFICATION

**Corrosive**

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

### 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 halones.
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
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**6.ACCIDENTAL RELEASE MEASURES (contd.)**

**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. Do not break open the dispenser cartridge.

**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	Red paste	Oxidising properties	None
Odour	Amine-like	Vapour pressure	No data
pH	>7 (in water)	Relative density	1.2 (25°C)
Boiling point	Decomposes	Bulk density	Not relevant
Melting point	Not Relevant	Viscosity	No data
Flash point	>100°C (CC)	Solubility	Partially miscible with water
Autoignition temperature	No data	Partition coefficient	No data
Explosive properties	No data	Other data	

**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.

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**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

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**12. ECOLOGICAL INFORMATION**

MOBILITY	Likely to be mobile in soil.
DEGRADABILITY	Readily biodegradable.
ACCUMULATION	There is little potential for bioaccumulation. Biomagnification is unlikely.
ECOTOXICITY	Toxic to aquatic organisms:

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**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.

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**14. TRANSPORT INFORMATION**

UN NO.	2327
PROPER SHIPPING NAME	
ADR/RID	Class 8. Item 53(b)
IMCO	Class 8. IMDG Code page MFAG Table No. 320 EmS No. 8-05
IATA/IACO	Class 8
PACKING GROUP	3
LABEL	Corrosive



## 15. REGULATORY INFORMATION

### CLASSIFICATION

Corrosive

### LABEL INFORMATION

R34: Causes burns.

R22: Harmful if swallowed.

R43: May cause sensitisation by 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.

**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.**

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