

# TRADE GRADE PRODUCTS LTD

## MATERIAL SAFETY DATA SHEET

### 1. Identification of the substance / preparation and company.

|                            |   |
|----------------------------|---|
| Product name               | DeLam TX – Part A   |
| Supplier                   | Trade Grade Products Limited  |
| Address                    | 2 Thorne Way<br>Woolsbridge Industrial Park<br>Three Legged Cross<br>Wimborne<br>Dorset<br>BH21 6FB |
| Emergency telephone number | 01202 820177  |

### 2. Composition / Information on Ingredients.

| <u>Material description</u>                   | <u>CAS No.</u>               | <u>% Content</u> | <u>Health (class)</u> | <u>Risk (R No.)</u>   |
|---|------------------------------|------------------|-----------------------|-----------------------|
| Epoxy resin<br>Average molecular weight < 700 | 25068-38-6                   | >80              | Xi                    | R36/38, R43<br>R51/53 |
| Thixotropic filler                            | Not classified as hazardous. |                  |                       |                       |
| Oxirane                                       | 68609-97-2                   | 5 – 10           | Xi, N                 | R36/38, R43<br>R51/53 |

### 3. Hazards Identification.

|               |  |
|---------------|--|
| Skin contact  | Irritating to skin. May cause sensitisation by skin contact. |
| Eye contact   | Vapours may irritate eyes.                                   |
| Environmental | Dangerous for the environment.                               |

### 4. First Aid Measures.

|            |   |
|------------|---|
| Inhalation | If vapour has been inhaled in high concentrations move the affected person to fresh air, keep them warm and allow to rest. If there is difficulty breathing medical attention should be sought immediately. |
| Skin       | Remove contaminated clothing immediately. Rinse affected skin with plenty of soap and water, using a mild cleaning agent. If irritation persists obtain medical attention.                                  |
| Eye        | Immediately flush eyes with running water for at least 15 minutes without interruption. Obtain medical attention. If irritation persists obtain medical attention.  |
| Ingestion  | <b>DO NOT INDUCE VOMITING.</b> If patient vomits turn to recovery position. Drink water in small sips (Diluting effect). Obtain medical attention.  |

### 5. Fire-fighting Measures.

|                                |   |
|--------------------------------|---|
| Suitable extinguishing media   | Use foam, carbon dioxide, dry powder or water spray.  |
| Unsuitable extinguishing media | Do not use high pressure water jet.   |
| Personal protection            | Wear self-contained breathing apparatus.  |
| Exposure hazards               | Do not allow to enter drains, sewers or waterways. Should this happen; notify the relevant authority immediately. |

**6. Accidental Release Measures.**

Extinguish all naked lights to allow maximum ventilation to the spillage area. Use sand, barrier, etc. to contain spillage and prevent entry into drainage systems, sewers and waterways. The spillage should be put into a clean container for approved disposal.

**7. Handling and Storage.**

|          |   |
|----------|---|
| Handling | Mix only in the ratios supplied by the manufacturer. The mixed product has a low exotherm and remains usable for one hour. Injection guns should be cleaned out every hour as mixed adhesive near the end of its pot life can react with freshly mixed adhesive causing decreased pot life and adhesive curing inside the gun barrel. |
| Storage  | Keep containers tightly closed and dry. Avoid temperatures below 10°C and above 25°C.   |

**8. Exposure Controls / Personal Protection.**

|                        |   |
|------------------------|---|
| Respiratory protection | In case of insufficient ventilation wear suitable respiratory equipment.  |
| Hand protection        | Wear plastic or rubber gloves.  |
| Eye protection         | Suitable eye / face protection should be worn.  |
| Personal hygiene       | Apply skin protection crème before handling. Remove contaminated clothing. Wash hands before breaks and at the end of work. |

**9. Physical and Chemical Properties.**

|                 |                              |
|-----------------|------------------------------|
| Appearance      | Light paste                  |
| Odour           | Slight                       |
| Flash point     | > 140°C DIN51758             |
| Boiling point   | > 200°C                      |
| Viscosity       | Thixotropic                  |
| Vapour pressure | < 2 Pa @ 20°C                |
| Density         | 1.2 g/cm <sup>3</sup> @ 20°C |

**10. Stability and Reactivity.**

|                     |  |
|---------------------|--|
| Stability           | Stable and un-reactive at normal temperatures and conditions.          |
| Reactivity          | May react under considerable heat build up with amines and mercaptans. |
| Conditions to avoid | Static charges, strong oxidising agents, strong bases.                 |

**11. Toxicological Information.**

LD50 Oral (rat) 10000mg/kg

Irritant to eyes and skin, may cause sensitisation by skin contact.

**12. Ecological Information.**

Mobile liquid, insoluble in water. Not expected to biodegrade. Expected to be bioaccumulative. Do not allow to enter drains, sewers or waterways.

**13. Disposal Consideration.**

Incinerate only in officially approved incinerator.

Disposal of the wet adhesive is governed by the Control of Pollution (Special Wastes) Regulations 1980.


Non-recoverable waste should be disposed of via a licensed waste disposal contractor.

Material is non hazardous when used with Tradeweld Floor Kit Part B and cured.

**14. Transport Information.**

|                      |   |
|----------------------|---|
| Proper shipping name | Environmentally hazardous substance, liquid, n.o.s. |
| RID / ADR            | UN3082 Class 9, Packing group III                   |
| IMDG-Code            | UN3082 Class 9, Packing group III                   |
| IATA                 | UN3082 Class 9, Packing group III                   |
| Flashpoint           | > 140°C   |

**15. Regulatory Information.**

|                       |   |  |
|-----------------------|---|--|
| CHIP Label for supply |      | IRRITANT<br>Contains: Epoxy resin average molecular weight <700, Oxirane.  |
| Classification        | Xi, N   |  |
| CHIP Risk phrases     | R36/38<br>R43<br>R51/53   | Irritating to eyes and skin.<br>May cause sensitisation by skin contact.<br>Toxic to aquatic organisms, may cause long term adverse effects in the marine environment.   |
| CHIP Safety phrases   | S01/02<br>S24/25<br>S28<br>S37/39   | Keep locked up and out of the reach of children.<br>Avoid contact with skin and eyes.<br>After contact with skin, wash immediately with plenty of soap and water.<br>Wear suitable gloves and eye/face protection. |
| Regulatory references | CHIP Regulations 1996<br>Health and Safety at Work Act 1996<br>COSHH Regulations 1994 |  |

**16. Other Information.**

Other information This adhesive should be used in accordance with the supplier's recommendations.

The information provided in this data sheet is based on our current knowledge of the product and is intended to describe it for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

# TRADE GRADE PRODUCTS LTD

## MATERIAL SAFETY DATA SHEET

### 1. Identification of the substance / preparation and company.

|                            |   |
|----------------------------|---|
| Product name               | DeLam TX Part B   |
| Supplier                   | Trade Grade Products Limited  |
| Address                    | 2 Thorne Way<br>Woolsbridge Industrial Park<br>Three Legged Cross<br>Wimborne<br>Dorset<br>BH21 6FB |
| Emergency telephone number | 01202 820177  |

### 2. Composition / Information on Ingredients.

Hardener component of a two part thixotropic epoxy adhesive.

| <u>Material description</u> | <u>CAS No.</u> | <u>Health (class)</u> | <u>Risk (R No.)</u>      |
|-----------------------------|----------------|-----------------------|--------------------------|
| Diethylenetriamine          | 111-40-0       | C                     | R21/22, R34, R43         |
| Benzyl alcohol              | 100-51-6       | Xn                    | R20/22                   |
| Isophorone diamine          | 2855-13-2      | C                     | R21/22, R34, R43, R52/53 |

### 3. Hazards Identification.

|               |  |
|---------------|--|
| Skin contact  | Causes burns. May cause sensitisation by skin contact. |
| Eye contact   | Irritating to eyes.                                    |
| Inhalation    | Harmful by inhalation.                                 |
| Ingestion     | Harmful if swallowed.                                  |
| Environmental | Dangerous for the environment.                         |

### 4. First Aid Measures.

|            |   |
|------------|---|
| Inhalation | If vapour has been inhaled in high concentrations move the affected person to fresh air, keep them warm and allow to rest. If there is difficulty breathing medical attention should be sought immediately. |
| Skin       | Remove contaminated clothing immediately. Rinse affected skin with plenty of soap and water, using a mild cleaning agent, do not use solvents. If irritation persists obtain medical attention.             |
| Eye        | Immediately flush eyes with running water for at least 15 minutes without interruption. Obtain medical attention. If irritation persists obtain medical attention.  |
| Ingestion  | <b>DO NOT INDUCE VOMITING.</b> If patient vomits turn to recovery position. Drink plenty of water. Obtain medical attention. Never make an unconscious person drink fluids.                                 |

**5. Fire-fighting Measures.**

|                     |   |
|---------------------|---|
| Extinguishing media | Foam / Water fog / Dry powder / CO <sup>2</sup> . Do not use a water jet. |
| Personal protection | Wear self-contained breathing apparatus and a protective suit.            |

**6. Accidental Release Measures.**

Spillages should be contained by and covered with sand, sawdust or other inert material. The mixture can then be placed into suitable containers and the spill area cleaned with detergent and water. Dispose of as hazardous waste in accordance with local regulations.

**7. Handling and Storage.**

|          |  |
|----------|--|
| Handling | When handling do not eat, drink or smoke. Do not breathe vapour. Avoid contact with skin and eyes. Use only in well ventilated areas. Provide adequate air exchange / exhaust in the work room. Handle and open container with care. |
| Storage  | Keep away from food, drink and animal feeding stuffs. Keep container tightly closed. Store at room temperature in the original container. Store away from epoxy resins, amines and oxidising agents.                                 |

**8. Exposure Controls / Personal Protection.**

|                        |   |
|------------------------|---|
| Exposure limits        | Diethylenetriamine 8 Hours TWA OEL = 4.3 mg/m <sup>3</sup>  |
| Respiratory protection | None required providing suitable ventilation. If local exhaust ventilation is inadequate a respirator fitted with an organic vapour cartridge should be worn. |
| Hand protection        | Wear plastic or rubber gloves.  |
| Eye protection         | Wear chemical goggles.  |
| Skin protection        | Overalls and enclosed footwear. Wash hands before work breaks and after work.   |

**9. Physical and Chemical Properties.**

|                 |                          |
|-----------------|--------------------------|
| Appearance      | Liquid                   |
| Odour           | Smell of ammonia         |
| Flash point     | > 100°C DIN51758         |
| Boiling point   | > 190°C                  |
| Viscosity       | > 10 mPa.s @ 25°C        |
| Vapour pressure | < 1 Pa @ 20°C            |
| Density         | c/a 1 gram per cc @ 25°C |

**10. Stability and Reactivity.**

|                                  |   |
|----------------------------------|---|
| Thermal decomposition            | Stable thermal decomposition. > 200°C                                       |
| Hazardous reactions              | Static charges, strong oxidising agents, strong bases.                      |
| Hazardous decomposition products | Ammonia, oxides of nitrogen, carbon and other hazardous gases are released. |

**11. Toxicological Information.**

|                  |   |
|------------------|---|
| LD50 Oral (rats) | 2000 mg/Kg  |
| Skin irritation  | Corrosive. Causes sensitisation.                    |
| Eye irritation   | Corrosive.  |
| Inhalation       | Irritant.   |
| Ingestion        | Severe damage to mouth, throat and digestive tract. |

**12. Ecological Information.**

Avoid subsoil penetration. Do not allow product to enter drains, sewers or waterways. Do not contaminate surface water. Mobile liquid. Miscible with water. Not expected to biodegrade. Expected to be bioaccumulative.

**13. Disposal Consideration.**

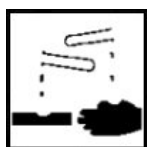
Must be incinerated in compliance with local regulations. Disposal should be in accordance with the Environmental Protection (Duty of Care) Regulations 1991.

**14. Transport Information.**

|                      |  |
|----------------------|--|
| Proper shipping name | Environmentally hazardous material, Corrosive liquid, n.o.s. |
| RID / ADR            | UN3082 Class 9, Packing group III                            |
| IMDG-Code            | UN3082 Class 9, Packing group III                            |
| ICAO                 | UN3082 Class 9, Packing group III                            |
| Flashpoint           | > 100°C DIN51758   |

**15. Regulatory Information.**

CHIP Label for supply



CORROSIVE

Contains: Diethylenetriamine, Benzyl alcohol, Isophorone diamine.

|                     |   |   |
|---------------------|---|---|
| Classification      | C, N                                      |   |
| CHIP Risk phrases   | R20/21/22<br>R34<br>R43<br>R51/53         | Harmful by inhalation, in contact with skin and if swallowed.<br>Causes burns.<br>May cause sensitisation by skin contact.<br>Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.                   |
| CHIP Safety phrases | S01/02<br>S24<br>S28<br><br>S29<br>S37/39 | Keep locked up and out of the reach of children.<br>Avoid contact with skin.<br>After contact with skin wash immediately with plenty of soap and water.<br><br>Do not empty into drains.<br>Wear suitable gloves and eye / face protection. |

**16. Other Information.**

The information provided in this data sheet is based on our current knowledge of the product and is intended to describe it for the purpose of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



*The Glue People*

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# Tradeweld DeLam TX

## Delamination Repair System

### General Description

DeLam TX is a two part, low exotherm, thixotropic epoxy resin system; primarily designed for pressure injection into delaminated flooring in the repair of caravans and motorhomes. The unique nature of DeLam TX allows it to be pressure injected by gun from underneath the caravan, thereby saving time, labour and money by eliminating the need to remove fitted furniture and cut flooring in order to get to the delaminated area.

The two part system can fill gaps from 0.1mm to 10mm and is non shrink enabling a complete fill of gaps and voids. DeLam TX is suitable for most construction materials with particular reference to thermal insulation materials based on timber – polystyrene composites. The hardened adhesive is resistant to most chemicals and is stable to repeated temperature cycles.

### Application

For best results, it is imperative that the delamination is treated as quickly as possible after it is first noticed, as constant trafficking of a delaminated floor will create dust and debris between the timber ply and the insulation material.

The first part of the repair is to determine the extent of the damage. From inside the vehicle walk on the floor to determine how far the delamination has travelled. Mark the outer edges of the damage and then by careful measurement, transfer this information to the underside.

Drill a series of 8mm holes up into the floor, but not through the insulation, to cover the entire affected area at 200mm centres and in a diamond pattern. Now drill 6mm pilot holes up through the insulation until you touch the upper floor section. This will form a tight seal around the probe to prevent the adhesive from squeezing past it and out of the bottom of the hole. (fig. b). Vacuum around the drilled holes and remove as much dust as possible from inside the holes.

When all of the preparation work is complete, empty the entire B pack into the A pack and mix thoroughly by hand until a homogenous mix is achieved. The material will seem to thicken considerably during mixing, this is just the thixotrope reacting, and is normal. Although the material seems thick, it will pump very easily. Load into the DeLam injection gun with a spatula and close the gun. DeLam TX has a specially controlled exotherm to keep heat build up to a minimum and to increase pot life. The mixed material will remain useable for at least 1 hour.

The plastic probe on the end of the flexible injection pipe is now pushed into one of the 6mm pre-drilled holes in the insulation material. When it hits the upper plywood floor, pull it back around 6mm (1/4") and then start to pump the resin into the space, still holding the probe in place. Seven to eight complete pulls on the trigger will usually suffice. If it builds up a lot of pressure and refuses to pump, remove the probe and go to the next hole. It probably means that the ply has not delaminated in that position. Work methodically across the van completing one line of holes at a time to ensure that no air is trapped in the adhesive. Alternatively, work around the delaminated area and work slowly towards the centre. Be aware that the resin will start to cure fairly quickly inside the gun and therefore needs to be applied without delay. When the injection is complete, immediately place some boards inside the van, above the injected area and place some weights on them to bring the ply into contact with the insulation. This will probably displace some resin and will pump it back out through the holes, so ensure there is a dust sheet, paper, etc under the van to catch it. The adhesive will be cured well enough the following morning to move the van. Do not forget to clean any resin from the gun quickly. If the resin starts to set inside the gun, it will be rendered useless.

Finally plug the holes with the grommets supplied. Do not clean around the hole first as residual resin will help to bond the grommets into place.

## Physical Data

|                        | Part A   | Part B               |
|------------------------|--|----------------------|
| <b>Base</b>            | Epoxy  | Polyamine            |
| <b>Appearance</b>      | Light paste  | Liquid               |
| <b>Density</b>         | 1.2g/cm <sup>3</sup> @ 20°C  | c/a 1g per cc @ 25°C |
| <b>Vapour pressure</b> | < 2 Pa @ 20°C  | < 1 Pa @ 20°C        |
| <b>Viscosity</b>       | Thixotropic paste  | > 10 mPa.s @ 25°C    |
| <b>Shelf life</b>      | 12 months in unopened packs when kept in dry conditions at temperatures between 5°C and 35°C. Higher temperatures may reduce shelf life. |                      |

*Pot life for adhesive after mixing.*

|                                 |    |    |    |    |
|---------------------------------|----|----|----|----|
| <b>Ambient temperature (°C)</b> | 5  | 10 | 20 | 30 |
| <b>Useable time (minutes)</b>   | 80 | 45 | 25 | 10 |

Additional Properties

|                                 |                        |
|---------------------------------|------------------------|
| <b>Slant shear strength</b>     | 55 N/mm <sup>2</sup>   |
| <b>Density</b>                  | 1200 Kg/m <sup>2</sup> |
| <b>Mixed adhesive viscosity</b> | Thixotropic            |

Exotherm temperature development @ 20°C

|                                  |    |    |    |
|----------------------------------|----|----|----|
| <b>Time after mixing (hours)</b> | 1  | 2  | 3  |
| <b>Exotherm temperature (°C)</b> | 30 | 55 | 55 |

## General Information

When repairing large delaminations or multiple repair jobs; it is important to clean the barrel of the injector gun at least once every hour. This is because the residue of mixed adhesive near the end of its pot life can react with freshly mixed adhesive causing drastically reduced pot life and even flash setting of the adhesive inside the injector gun.

**Health and Safety**

DeLam TX is an epoxy resin based adhesive. Epoxy resins may cause an allergic reaction in some people. Wear gloves, use barrier cream on unprotected skin areas and wear suitable eye / face protection when mixing, using and cleaning. Ensure adequate ventilation to prevent inhalation of vapours. If skin contact occurs remove resin immediately with cleansing cream and wash with soap and water. Should eye contact occur rinse immediately with plenty of clean water and seek medical advice. If swallowed, do not induce vomiting, seek medical attention immediately.

**Important Notice**

Data contained in this document is for information only and is believed to be reliable. Trade Grade Products Ltd (TGP) cannot assume responsibility for results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability of the product for any specific purpose and TGP is pleased to provide a sample upon request.

Before using this product ensure that you have been supplied with and have read carefully the following information.

- The hazard label (complying with latest CDG/CPL regulations) applied to the container.
- Material Safety Data Sheets, DeLam TX Part A and DeLam TX Part B.

**Instruction sheets are available for general use and heavy-duty use for badly damaged floors.**