1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION & OF THE COMPANY / UNDERTAKING

Product name: Tecseal 100FR
Use of substance / preparation: Sealant
Company name: Lindab Ltd.
Unit 9-10 Carousel Way, Riverside Business Park, Northampton, NN3 9HG
Tel: 01604 788350 Fax: 01604 788351

2. HAZARDS IDENTIFICATION

Main hazards: Highly flammable. Irritating to skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child. Vapours may cause drowsiness & dizziness.

Other hazards: In use, may form flammable / explosive vapour-air mixture.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients:
- TOLUENE 27.50% EINECS: 203-625-9 CAS: 108-88-3 [F] R11; [Xi] R38; [Xn] R63; [Xn] R65; [-] R67
- MIXED ALIPHATIC HYDROCARBONS 16.60%
- ACETONE 1.70% EINECS: 200-662-2 CAS: 67-64-1 [F] R11; [Xi] R36; [-] R66; [-] R67
- BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT} 0.16% EINECS: 500-033-5 CAS: 25068-38-6 [Xi] R36/38; [Sens.] R43; [N] R51/53
- ZINC OXIDE 0.80% CAS: 1314-13-2 [N] R50/53

4.0 FIRST AID MEASURES (SYMPTOMS)

Skin contact: There may be irritation & redness at the site of contact. Onset of symptoms may be delayed.
Eye contact: There may be irritation & redness. The eyes may water profusely.
Ingestion: There may be soreness & redness of the mouth & throat.
Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing. Onset of symptoms may be delayed.

4.1 FIRST AID MEASURES (ACTION)

Skin contact: Remove from skin with paper or towel. Wash effected area thoroughly with soap & water. Seek medical advice if symptoms persist.
Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor
Ingestion: Wash out mouth with water. Consult a doctor.
Inhalation: Remove casually from exposure ensuring one’s own safety whilst doing so. Consult a doctor if symptoms persist.

5. FIRE-FIGHTING MEASURES

Extinguishing media: Alcohol resistant foam. Carbon Dioxide. Dry chemical powder. Use water spray to cool containers.
Exposure hazards: Highly flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture. Vapour may travel considerable distance to source of ignition & flash back.
Protection of fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin & eyes.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Refer to section 8 of MSDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind & away from danger point. Mark out the contaminated area with signs & prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid. Eliminate all sources of ignition.

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

Clean up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

7. HANDLING & STORAGE

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Smoking is forbidden. Use non-sparking tools.

Storage conditions: Store in cool well ventilated area. Keep container tightly closed. Keep away from sources of ignition. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting & electrical equipment are not a source of ignition.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

WEL (8hr exposure limit): 5mg/m³
WEL (15 minute exposure limit): 10mg/m³

Hazardous ingredients:
- TOLUENE: WEL (8hr exposure limit): 191mg/m³ WEL (15 min exposure limit): 574 mg/m³
- ACETONE WEL (8hr exposure limit): 1210 mg/m³ WEL (15 min exposure limit): 3620 mg/m³
- ZINC OXIDE WEL (8hr exposure limit): 5 mg/m³ WEL (15 min exposure limit): 10 mg/m³

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure lighting & electrical equipment are not a source of ignition.

Respiratory protection: If exposure levels are likely to be exceeded, use a full face mask fitted with an organic AXP3 filter for short term low level exposures. For long term or high level exposures, compressed airline breathing apparatus should be used.

Hand protection: Avoid skin contact. For repeated exposure use Viton or 4H chemical gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

9. PHYSICAL & CHEMICAL PROPERTIES

State: Liquid
Colour: Grey
Odour: Pungent
Evaporation rate: Moderate
Oxidising: Non-oxidising (by EC criteria)
Solubility in water: Insoluble
Viscosity: Highly viscous
Boiling point / range: 56°C
Flammability limits; lower: 0.6%
upper: 13%
Flash point: -35°C
Auto flammability: 200°C
Relative density: 1.15
10. STABILITY & REACTION

Stability: Stable under normal conditions. Stable at room temperature.
Materials to avoid: Strong oxidising agents. Strong acids.
Hazardous combustion products: In combustion emits toxic fumes.

11. TOXICOLOGICAL INFORMATION

Hazardous ingredients: 
- TOLUENE — IVN RAT LD50 1960 mg/kg ORL MUS LD50 2 gm/kg ORL RAT LD50 6900 mg/kg
- ACETONE — IVN RAT LD50 5500 mg/kg ORL MUS LD50 3 gm/kg ORL RAT LD50 5800 mg/kg
- BISPHENOL A {(EPICHLORHYDRIN)(REACTION PRODUCT)} — ORL MUS LD50 15600 mg/kg
  ORL RAT LD50 11400 mg/kg SKN RBT LD50>20 ml/kg
- ZINC OXIDE — IPR RAT LD50 240 mg/kg ORL MUS LD50 7950 mg/kg

Routes of exposure: Refer to section 4 of MSDS for routes of exposure & corresponding symptoms.

12. ECOLOGICAL INFORMATION

Mobility: Volatile.
Persistence & degradability: Biodegradable in part only.
Bio accumulative potential: No data available.

13. DISPOSAL CONSIDERATIONS

Disposal operations: Arrange for disposal by a licensed waste disposal company.
Disposal of packaging: Arrange for disposal by a licensed waste disposal company.

NB: The user’s attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. TRANSPORT INFORMATION

14.1 ADR / RID

UN number: 1133  ADR Class: 3
Packing group: II  Classification code: F1
Shipping name: ADHESIVES  Hazard ID number: 33
Labelling: 3

14.2 IMDG / IMO

UN number: 1133  Class: 3
Packing group: II  EmS: F-E,S-D
Labelling: 3  Marine pollutant: Yes

14.3 IATA / ICAO

UN number: 1133  Class: 3
Packing group: II  Packing instructions: 305(P&CA): 307(CAO)
Labelling: 3
15. REGULATORY INFORMATION

Hazard symbols:

- Highly Flammable
- Harmful

Risk phrases:
- R11: Highly flammable.
- R38: Irritating to skin.
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R63: Possible risk of harm to the unborn child.
- R67: Vapours may cause drowsiness & dizziness.

Safety phrases:
- S16: Keep away from sources of ignition – No smoking.
- S23: Do not breathe vapour.
- S38: In case of insufficient ventilation, wear suitable respiratory equipment.
- S24/25: Avoid contact with skin & eyes.
- S36/37: Wear suitable protective clothing & gloves.
- S61: Avoid release to the environment. Refer to special instructions / safety data sheets.

Precautionary phrases:
Contains bisphenol a-(epichlorhydrin) (reaction product), rosin. May produce an allergic reaction. Restricted to professional users.

Note:
The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user’s attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international & local regulations or provisions.

16. OTHER INFORMATION

Risk phrases used in sec. 3
- R11: Highly flammable.
- R38: Irritating to skin.
- R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R63: Possible risk of harm to the unborn child.
- R65: Harmful: may cause lung damage if swallowed.
- R67: Vapours may cause drowsiness & dizziness.
- R36: Irritating to eyes.
- R66: Repeated exposure may cause skin dryness or cracking.
- R36/38: Irritating to eyes & skin.
- R43: May cause sensitisation by skin contact.
- R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Legal disclaimer:
The above information is believed to be correct but does not purport to be all inclusive & shall be only used as a guide. The company shall not be held liable for any damage resulting from handling or from contact with the above product.
MATERIAL SAFETY DATA SHEET

TECSEAL 200FRA

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION & OF THE COMPANY / UNDERTAKING

Product name: Tecseal 200FRA
Use of substance / preparation: Sealant
Company name: Lindab Ltd.
Unit 9-10 Carousel Way, Riverside Business Park, Northampton, NN3 9HG
Tel: 01604 788350 Fax: 01604 788351

2. HAZARDS IDENTIFICATION

Main hazards: The product is non-hazardous. General cleanliness should be observed.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients:
- ETHYLENE GLYCOL <0.3% [Xn] R22: Harmful if swallowed.
- SILANE <0.1% [Xi] R36/38: Irritating to eyes & respiratory system.
- BIOCIDE <0.1% [Xi] R43: May cause sensitisation by skin contact.
- WHITE SPIRIT <3.5% R10: Flammable.

4. FIRST AID MEASURES

Skin contact: Wipe off excess with a paper towel, then clean with resin removing cream or hand cleanser. DO NOT use solvents. Finally wash with soap & water.
Eye contact: Irrigate thoroughly with water & seek medical advise.
Ingestion: DO NOT induce vomiting. Seek medical advice.
Inhalation: Provide patient with fresh air & seek medical advice.

5. FIRE-FIGHTING MEASURES

Extinguishing media: The material is incombustible in emulsion form. Use appropriate extinguisher for the surrounding conditions.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions: Do not discharge into drains or rivers.
Clean up procedures: Absorb into dry earth or sand. Collect up by shovel or scraper, and then scrub affected area immediately with detergent & water.

7. HANDLING & STORAGE

Storage conditions: Avoid frost & freezing conditions in storage & transport.
Store in a dry place in the temperature range of 5°C to 30°C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye protection: Safety glasses / goggles. Ensure eye bath is to hand.
Skin protection: Protective clothing.

9. PHYSICAL & CHEMICAL PROPERTIES *

Appearance: White paste.
Relative density: 1.6 g/ml
Miscibility: Miscible with water.
Solids: Approximately 75%.
10. STABILITY & REACTION

Conditions to avoid: Avoid freezing conditions.
Hazardous combustion products: In a fire, smoke & fumes with carbon dioxide & carbon monoxide will be generated with a small amount of acid gases.

11. TOXICOLOGICAL INFORMATION

Hazardous ingredients: The product is non-hazardous.
Routes of exposure: Ingestion may cause obstruction. Contact with eyes may cause physical damage.

12. ECOLOGICAL INFORMATION

Contamination: Contamination of both terrestrial & marine environments should be avoided.

13. DISPOSAL CONSIDERATIONS

Waste disposal: This material is not such as to be classified as “special waste” as the term is defined by the Control of Pollution (Special Waste) Regulations 1980 & may be disposed of by landfill tipping.

14. TRANSPORT INFORMATION

Regulations: Not applicable.

15. REGULATORY INFORMATION

Note: Co-polymer emulsion with fillers & additives which is not dangerous as the term is defined in the Chemicals (Hazard Information & Packaging for Supply) Regulations 1994.

16. OTHER INFORMATION

Legal disclaimer:
- This product should be used as directed by Lindab Ltd. For further information consult the application instructions.
- This Material Safety Data Sheet was compiled using the current safety information supplied by the distributors of the components materials.
- This Material Safety Data Sheet supersedes all previous issues, & users are cautioned to ensure it is current. Destroy all previous data sheets, & if in any doubt, contact Lindab Ltd; quoting the information at the top of all pages of this document.
**1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION & OF THE COMPANY / UNDERTAKING**

<table>
<thead>
<tr>
<th>Product name:</th>
<th>Tecseal 300HM Clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use of substance / preparation:</td>
<td>Sealant</td>
</tr>
</tbody>
</table>
| Company name: | Lindab Ltd.  
Unit 9-10 Carousel Way, Riverside Business Park, Northampton, NN3 9HG  
Tel: 01604 788350  
Fax: 01604 788351 |

**2. HAZARDS IDENTIFICATION**

Main hazards: Indirect toxicity hazard Lachrymatory.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Hazardous ingredients:
- Dimethypolysiloxane.
- Filters.
- Auxiliaries.
- Acetoxysilane cross linker.

**4. FIRST AID MEASURES**

| Skin contact: | Immediately rinse with plenty of soap & water. |
| Eye contact: | Immediately irrigate thoroughly with water for 10-15 minutes & seek medical advice. |
| Ingestion: | DO NOT induce vomiting. Rinse mouth with water. Seek medical advice. |
| Inhalation: | Provide patient with fresh air & seek medical advice. |

**5. FIRE-FIGHTING MEASURES**

| Extinguishing media: | Dry powder, foam, carbon dioxide. Extinguishing media which must not be used for safety reasons: None known. |
| Exposure hazards: | Exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: None known. |
| Protection of fire-fighters: | Special protective equipment for fire fighting: None known. |

**6. ACCIDENTAL RELEASE MEASURES**

| Environmental precautions: | Observe local bye-laws. |
| Clean up procedures: | Absorb mechanically & dispose of according to regulations. |

**7. HANDLING & STORAGE**

| Handling requirements: | Ensure adequate ventilation. Ensure general rules for fire prevention in partly used containers liberation of explosive gases is possible. |
| Storage conditions: | Protect against moisture. Store in a cool dry place. Keep container tightly closed. |

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

| Eye protection: | Safety glasses / goggles. Ensure eye bath is to hand. Avoid contact. |
| Skin protection: | PVC / rubber gloves recommended. Avoid contact. |
| Respiratory protection: | Compressed air / oxygen apparatus. Do not breath vapour. |
9. PHYSICAL & CHEMICAL PROPERTIES *

Appearance: Transparent paste with strong-irritating / pungent odour.
Relative density: 1.03 g/ cm³ at 20°C.
Ignition temperature: Approximately 460°C.
Solubility in water: Virtually insoluble.

10. STABILITY & REACTION

Stability: If stored & handled in accordance with standard industrial practices, no reactions are known.
Materials to avoid: Halogens.
Hazardous decomposition products: At the temperature of approximately 150°C a small amount of formaldehyde can be released by oxidative degradation. Under the effect of humidity: acetic acid.

11. TOXICOLOGICAL INFORMATION

Hazardous ingredients: Under effects of humidity product separates a small quantity of acetic acid (64-19-7) which irritates skin & mucous membranes.
Routes of exposure: Refer to section 4 of MSDS for routes of exposure & corresponding symptoms.

12. ECOLOGICAL INFORMATION

Contamination: May cause long term adverse effects in the marine environments. Contamination should be avoided.
Degradability: In terrestrial environment not or barely biodegradable.

13. DISPOSAL CONSIDERATIONS

Waste disposal: Use appropriate containment to avoid environmental contamination. Do not discharge into the sewer / drain or the environment, dispose of at authorised waste collection point.

14. TRANSPORT INFORMATION

14.1 ADR / RID & GGVS / GGVE

Land transport: Non-hazardous material. Transport permitted.

14.2 IMDG / GGV

Sea transport: Non-hazardous material. Transport permitted.

14.3 ICAO-TI / IATA-DGR

Air transport: Non-hazardous material. Transport permitted.

15. REGULATORY INFORMATION

Identification: According to EEC directives: EEC / R EEC / S

16. OTHER INFORMATION

Legal disclaimer: • This product should be used as directed by Lindab Ltd. For further information consult the application instructions.
• This Material Safety Data Sheet was compiled using the current safety information supplied by the distributors of the components materials.
• This Material Safety Data Sheet supersedes all previous issues, & users are cautioned to ensure it is current. Destroy all previous data sheets, & if in any doubt, contact Lindab Ltd; quoting the information at the top of all pages of this document.