MATERIAL SAFETY DATA SHEET
THERMOFIGHT FR/707/H1 (COMPONENT B – HARDENER)

Section 1. Chemical Product And Company Identification

Common Name: Thermofight FR/707/H1 (Component B – Hardener)
Synonym: Not available
Trade Name: Thermofight FR/707/H1 (Component B – Hardener)
Material Uses: Electro Insulating Resin
Manufacturer: Elite Chemical Industries (Pty) Ltd
23 Barium Street
Alrode, Ext 7
South Africa
Tel: +27 11 864 4620
Email: info@elitechemical.co.za

Code: FR/707/H1
Validation Date: 29.04.2025
Print Date: 29.04.2025

Responsible Name: J Friedrich
In Case of Emergency: + 27 83 287 2929 (Business hours)
+ 27 83 287 2929 (After hours)

Section 2. Composition, Information on Ingredients

Substance/Preparation: Preparation

Ingredient Name	CAS Number	%	EC Number	EU/SABS 0265 Classification
Diphenylmethane diisocyanate	9016-87-9	25	615-005-01-6	R36/37/38, R42/43 Xi
Modifiers, Liquid (Alkylsulphonic acidester)	91082-17-6	75	1272-2008	Non Hazardous
See Section 16 for the full text of the R Phrases declared above				

*** Occupational Exposure Limit(s), if available, are listed in section 8**

Section 3. Hazardous Identification

The preparation is classified as not dangerous according to Directive 1999/45/EC and its amendments.

Classification: R36/37/38, R42/43
Human health hazards: Irritating to eyes, respiratory system and skin.
May cause sensitisation by skin contact.

See Section 11 for more detailed information on health effects and symptoms.

Section 4. First Aid Measures

Eye Contact: In cases of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.
Skin Contact: Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation: If inhaled, remove to fresh air. Get medical attention if symptoms appear.
Ingestion: Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately.
Notes to Physician: No specific treatment, treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms.

Section 5. Fire Fighting Measures

Flammability of the Product:	May be combustible at high temperatures
Auto-ignition Temperature:	The lowest known value is 336.9ºC (638.4ºF) (Triethylenetetramine).
Flash Points:	The lowest known value is Closed cup: 98.9ºC (210ºF). Open cup: 97.9ºC (208ºF). (Cleveland). (Diethylenetriamine).
Flammable Limits:	Not available
Products of Combustion:	These products are carbon oxides (CO, CO_2), nitrogen oxides (NO, NO_2…).
Fire Hazards in Presence of Various Substances:	Flammable – self-extinguishing in the presence of open flames, sparks, and static discharge, of heat.
Explosion Hazards in Presence of Various Substances:	None identified
Fire Fighting Media and Instructions:	In case of fire, use water spray (fog), foam, dry chemical, or CO_2.
Special protective Equipment for fire-fighters:	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Special Remarks on Fire Hazards:	When heated to decomposition, it emits toxics fumes. (Diethylenetriamine)
Special Remarks on Explosion Hazards:	No additional remark.

Section 6. Accidental Release Measures

Personal precautions:	Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Follow all firefighting procedures (Section 5).
Environmental Precautions and Clean-up Methods:	Minimize contact of spilled material with soils to prevent runoff to surface waterways. See Section 13 for Waste Disposal Information. If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills like spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Note: See section 8 for personal protective equipment and section 13 for waste disposal.

Section 7. Handling and Storage

Handling:	Do not ingest. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Use suitable protective equipment (Section 8).
Storage:	Keep container tightly closed. Keep container in a cool, well-ventilated area.
Packaging materials Recommended:	Use original container.

Section 8. Exposure Controls, Personal Protection

Exposure Controls

Occupational exposure Controls:	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Respiratory protection:	A respirator is not needed under normal and intended conditions of product use. Wear appropriate respirator when ventilation is inadequate.
Hand protection:	Rubber gloves. Neoprene gloves.
Eye protection:	Safety glasses. Goggles, face shield, or other full-face protection if potential exists for direct exposure to aerosols or splashes.
Skin protection:	Additional body garments should be used based upon the task being performed (e.g. sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces. Appropriate techniques should be used to remove potentially contaminated clothing.

Section 8. Exposure Controls, Personal Protection (Continue/…)

Personal protective Equipment (Pictograms):

Occupational exposure limits:

Ingredient Name:	**Occupational Exposure Limits**

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid
Colour:	Transparent Brown
Odour:	Earthy, musty
Taste:	Not available
Molecular Weight:	Not applicable
Molecular Formula:	Not applicable
pH:	Not applicable
Boiling/Condensation Point:	The lowest known value is 207.05ºC (404.7ºF)
Melting/Freezing Point:	May start to solidify at 12ºC (53.6ºF) based on data for: Triethylenetetramine.
Critical Temperature:	The lowest known value is 459.9ºC (859.8ºF) (Triethylenetetramine).
Specific Gravity:	1.10 – 1.15 g/cm³
Vapour Pressure:	The highest known value is 0.03 kPa (0.2 mmHg) (at 20ºC)
Vapour Density:	The highest known value is 5.04 (Air = 1) (Triethylenetetramine).
Volatility:	Not available
Odour Threshold:	Not available
Evaporation Rate:	Not available
VOC:	Not available
Viscosity / 25ºC:	600 – 700 mPa.s
LogK_{ow}:	The product is insoluble in water and octanol.
Ionicity (in Water):	Not available
Dispersion Properties:	Partly dispersed in cold water, hot water.
Solubility:	Insoluble in cold water, hot water, methanol, diethyl ether, n-octanol.
Physical Chemical Comments:	No additional remark.

Section 10. Stability and Reactivity

Stability and Reactivity:	The product is stable
Conditions of Instability:	None identified.
Incompatibility with Various Substances:	Exothermic reaction with amines and alcohols; reacts with water forming CO_2 in closed containers, risk of bursting owing to increase of pressure. Slightly reactive to reactive with OXIDIZING AGENTS.
Hazardous Decomposition Products:	No hazardous decomposition products when stored and handled correctly.
Hazardous Polymerization:	Will not occur.

Section 11. Toxicological Information

Potential Acute Health Effects

Inhalation: No specific hazard
Ingestion: Ingestion may cause gastrointestinal irritation and diarrhoea.
Skin contact: Irritating to skin. May cause sensitisation by skin contact.
Eye contact: Irritating to eyes.

Acute toxicity

Ingredient Name	Test	Result	Route	Species

Potential Chronic Health Effects

Ingredient Name	Carcinogenic Effects	Mutagenic Effects	Developmental toxicity	Impairs fertility

No evidence of risk in humans

Over-exposure signs/symptoms
Target Organs: Contains material, which causes damage to the following organs: kidneys, liver, gastrointestinal tract, cardiovascular system, skin, eye, lens or cornea.
Other adverse effects: None identified.

Section 12. Ecological Information

Ecotoxicity Data

Ingredient Name	Species	Period	Result

BOD and COD: Not available.
Biodegradable/OECD: Not available.
Mobility: Not available.
Products of Degradation: These products are carbon oxides (CO, CO_2) and water, nitrogen oxides (NO, NO_2…).
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation: Not available

Section 13. Disposal Considerations

Waste Disposal: Incinerate in a licensed high temperature hazardous waste incinerator. Dispose of according to all federal, state and local applicable regulations.
Waste Stream: Not applicable.
Waste Classification: Not applicable.
European Waste Catalogue (EWC): Not applicable.
Consult your local or regional authorities.

Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
ADR/RID/SABS 0228 Class	Not regulated					
IMDG Class	Not regulated					
IATA-DGR Class	Not regulated					

Section 15. Regulatory Information

EU / SABS 0265 Classification

Hazard symbol(s):

Irritant

Risk phrases: R36/37/38- Irritating to eyes, respiratory system and skin.
R42/43- May cause sensitisation by inhalation and skin contact.

Safety phrases: S23- Do not breathe vapour/spray.
S36/37- Wear suitable protective clothing and gloves.
S45- In case of accident seek medical advice immediately and show this container or label.

Contains:

Product Use: Classification and labelling have been performed according to EU directives 67/548/EEC, 1999/45/EC including amended and the intended use.
- Industrial applications.

Section 16. Other information

Full text of R phrases referred to in Section 2 and 3: R36/37/38- Irritating to eyes, respiratory system and skin.
R42/43- May cause sensitisation by inhalation and skin contact.

Full text of classifications referred to in Sections 2 and 3:

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