



RESIN SURFACES LIMITED

SAFETY DATA SHEET, RESUTHANE. POLYURETHANE RESIN FINISHES

1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY:

NAMES OF PRODUCTS: RESUTHANE TG69, TGF69, TGC90, JT40, SL23, SL45, RS 69 RS90
Resuthane Terrazzo Finishes, and antistatic finishes in the above grades
Resufil

MANUFACTURERS: Resin Surfaces Ltd, Titan House, Lowick Close, Newby Road Industrial Estate, Hazel Grove, Cheshire, SK7 5ED, England.

EMERGENCY TELEPHONE: 0161-483-1232.

2: COMPOSITION/INFORMATION ON INGREDIENTS:

A 3-pack system comprising base, hardener and aggregate, which are supplied in separate containers to be mixed together at the site of application.

	% by weight	CAS No.	Hazard Symbols	R-phrases
Composition of base:				
Polyester/polyether polyol resin}				
Non-toxic pigments & additives }	> 75%	none	none	none
Water	< 25%			
Composition of hardener:				
Diphenylmethane-4-4'diisocyanate	> 99%	9016-87-9Xn		R20,36/37/38,42
Composition of aggregate:				
Mineral aggregates}	70- 90%	none	none	none
Sand}				
Portland cement	10-30%	65997-15-1	Xi	R36/38

3: HAZARDS IDENTIFICATION:

Base: Has a very low order of acute toxicity, does not represent a significant health hazard. Avoid prolonged contact with skin as irritation may occur. Avoid contact with eyes.

Hardener: Harmful by inhalation. Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation

Aggregate: Irritating to eyes and skin.

4: FIRST AID MEASURES:

Eye contact: Rinse immediately with plenty of water, continuing for at least 15 minutes. Seek medical attention.

Skin contact: Wash immediately with plenty of soap and water. Remove contaminated clothing. In case of persistent irritation or if a rash develops, seek medical attention.

Inhalation: Remove the affected person to fresh air. In case of breathing difficulty or distress, seek medical attention.

Ingestion: Immediately rinse mouth with water and seek medical attention. If this is not immediately available, drink one or two pints of water. Do not induce vomiting.

5: FIRE FIGHTING MEASURES:

Special hazards: If involved in a fire, may generate noxious or toxic vapours.
Protective equipment: Fire fighters wear self-contained breathing apparatus.
Extinguishing agents: Foam, dry powder, CO₂ or large quantity waterspray (not full jet).

6: ACCIDENTAL RELEASE MEASURES:

Personal precautions: Wear full protective clothing when dealing with a spillage.
When working with significant quantities ensure adequate ventilation
Environmental precautions: Prevent from entering sewer system, surface water, or soil.
Methods for cleaning up: Absorb with earth, sand or other absorbent materials. Transfer to a suitable open container for removal.

7: HANDLING AND STORAGE:

Handling: Wear goggles or a face shield, impervious gloves and protective clothing.
Avoid inhaling directly over containers, also dust from aggregate.
Storage: Store in a cool, well ventilated place away from foodstuffs.
Keep containers sealed until mixing.

8: EXPOSURE CONTROLS/PERSONAL PROTECTION:

During mixing: Wear dust respirator when handling aggregate.
During application: Wear goggles or a face shield, impervious gloves and protective clothing. Apply in a well ventilated area. In cases of insufficient ventilation, suitable respiratory protection should be used.

9: PHYSICAL AND CHEMICAL PROPERTIES:

Base: Physical state: pigment dispersion in liquid resin.
Colour: varies according to shade of finish required.
Odour: weak odour.
Vapour pressure: about 2.3 kPa at 20 °C.
Boiling point: 100 °C.
Flash point: >200 °C.
Density: about 1.1 g/cm³ at 20 °C.
Solubility: miscible with water.
Viscosity: <1 Pa.s at 25 °C.
Hardener: Physical state: viscous liquid.
Colour: dark brown.
Odour: slightly musty.
Boiling point: >230 °C.
Flash point: >200 °C.
Density: about 1.2 g/cm³ at 20 °C.
Solubility: immiscible with water.
Viscosity: 3-5 Pa.s at 25 °C.
Aggregate: Physical state: solid.
Density: about 2.65 g/cm³ at 20 °C.
Solubility: insoluble in water.

10: STABILITY AND REACTIVITY:

Base: No decomposition if used according to specifications.
In case of a fire, carbon monoxide carbon dioxide and other harmful gases may be formed.
Hardener: Reacts with water to produce CO₂ gas. May react exothermally with acids, alcohols, amines, bases. In case of a fire, toxic fumes of nitrogen oxides, carbon monoxide and carbon dioxide may be formed.

11: TOXICOLOGICAL INFORMATION:

- Base: May cause skin and eye irritation in humans. Unlikely to cause skin sensitisation.
- Hardener: LD50 oral, rat: >2000 mg/kg. Severe respiratory irritant by inhalation, and potential respiratory sensitiser. Hypersensitive persons may suffer from broncho constrictions (asthmatic symptoms) at very low concentrations. Moderate to severe irritant by skin contact. Prolonged and/or repeated contact may lead to skin sensitisation. May cause eye irritation and reversible corneal injury.
- Aggregate: Irritant to skin and eyes. Repeated exposure to well above the OEL level by inhalation may produce adverse effects on the lungs.
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12: ECOLOGICAL INFORMATION:

Environmental precautions: Prevent from entering sewer system, surface water, or soil.

13: DISPOSAL CONSIDERATIONS:

Waste: Burn in a hazardous waste incinerator. Do not re-use containers.

14: TRANSPORT INFORMATION:

- Base: Not classified as dangerous goods according to national or international regulations.
- Hardener: Not classified as dangerous cargo under The Carriage of Dangerous goods (CPL) regulations. Irritating to skin and mucous membranes.
- Aggregate: Not classified for conveyance purposes.
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15: REGULATORY INFORMATION:

- Base: Not classed as hazardous for labeling purposes.
- Hardener: Hazard labels: Xn Harmful. Contains isocyanates, see manufacturers information diphenylmethane-4-4'-diisocyanate.
- R-phrases: R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R42 May cause sensitisation by inhalation.
- S-phrases: S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of soap and water.
S38 In case of insufficient ventilation, wear suitable respiratory equipment.
S45 In case of accident or if you feel unwell, seek medical attention immediately (show the label where possible).
- Aggregate: Hazard labels: Xi Irritant.
R36/38 Irritating to eyes and skin.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of soap and water.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
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16: OTHER INFORMATION:

The base, hardener and aggregate are mixed together in the appropriate ratio as supplied. All the foregoing information should be regarded as being applicable to the uncured mixed product as well as to the individual base, hardener and aggregate components.
