

## MATERIAL SAFETY DATA SHEET GRIP COTE

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

**NAME OF PRODUCTS:**      **Grip Cote**  
2-pack clear polyurethane resin clear coating.

**MANUFACTURERS:**      **Ant Slip Solutions Ltd**  
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### 2: COMPOSITION/INFORMATION ON INGREDIENTS:

A 2-pack system comprising a water-based polyacrylate clear resin solution (base) and a solvent-free polyisocyanate hardener. The base and hardener 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:				
Polyacrylate resin	10-30%	}	}	}
Water & non-toxic additives	70-90%	}none	}none	}none
Composition of hardener:				
Polyisocyanate resin	70-90%	none	}	}
Polyisocyanate resin	10-30%	28182-81-2	}none	}none
Hexamethylene-1,6-diisocyanate (HDI)	< 0.1%	822-06-0	T	R23,36/37/38,42/43

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### 3: HAZARDS IDENTIFICATION:

Base:                      Non-hazardous.  
Hardener:                Contains isocyanates. See information supplied by the manufacturer.

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### 4: FIRST AID MEASURES:

Eye contact:            Rinse carefully and thoroughly with water and seek medical attention.  
Skin contact:           Wipe off mechanically and wash with plenty of soap and water. Remove contaminated clothing.  
Inhalation:             Remove the affected person to fresh air and allow to rest. In case of irritation of the respiratory tract, consult a doctor.  
Ingestion:              In case of swallowing, consult a doctor.

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### 5: FIRE FIGHTING MEASURES:

Special hazards:        If involved in a fire, may generate noxious or toxic vapours. Formation of carbon monoxide, nitrogen oxide, isocyanate vapour and traces of hydrogen cyanide is possible.  
Protective equipment: Fire fighters wear self-contained breathing apparatus.  
Extinguishing agents: Foam, dry powder, CO2 or water-spray.

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### 6: ACCIDENTAL RELEASE MEASURES:

Personal precautions: Wear full protective clothing when dealing with a spillage.  
Environmental precautions: Prevent from entering sewer system, surface water, or soil.  
Methods for cleaning up: Absorb with earth, sand or other absorbent materials.

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### **7: HANDLING AND STORAGE:**

Handling: Wear goggles or a face shield, impervious gloves and protective clothing.  
Storage: Store in a cool, well ventilated place away from foodstuffs. Keep containers dry and tightly sealed until mixing.  
Avoid temperatures above 50 °C. or below 0 °C.

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### **8: EXPOSURE CONTROLS/PERSONAL PROTECTION:**

During application: Wear goggles or a face shield, impervious gloves and protective clothing. Respiratory protection is required in insufficiently ventilated working areas and during spraying.

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### **9: PHYSICAL AND CHEMICAL PROPERTIES:**

Base:	Physical state:	liquid resin.
	Colour:	Off white emulsion.
	Odour:	weak odour.
	Vapour pressure:	about 2.3 kPa at 20 °C.
	Boiling point:	100 °C.
	Flash point:	not applicable.
	Density:	about 1.0 g/cm <sup>3</sup> at 20 °C.
	Solubility:	miscible with water.
	Viscosity:	<1 Pa.s at 25 °C.
Hardener:	Physical state:	clear liquid.
	Colour:	clear transparent.
	Odour:	nearly odourless.
	Vapour pressure:	about 0.9 kPa at 50 °C.
	Boiling point:	170 °C.
	Flash point:	180 °C.
	Density:	about 1.15 g/cm <sup>3</sup> at 20 °C.
	Solubility:	insoluble in water.
	Viscosity:	<1 Pa.s at 25 °C.

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### **10: STABILITY AND REACTIVITY:**

Base: No hazardous decomposition products when stored and handled correctly.  
Hardener: Reacts exothermally with amines and alcohols. Reacts slowly with water forming carbon dioxide.

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### **11: TOXICOLOGICAL INFORMATION:**

Base: Non-hazardous.  
Hardener: LD50 oral, rat: >5000 mg/kg. Contains isocyanates. See information supplied by the manufacturer. Over-exposure without the necessary precautions entails risk of concentration-dependant irritant effects on eyes, nose, throat and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible. Hypersensitive persons may suffer from these effects even at low concentrations.

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### **12: ECOLOGICAL INFORMATION:**

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

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**13: DISPOSAL CONSIDERATIONS:**

Waste: Burn in a hazardous waste incinerator.

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**14: TRANSPORT INFORMATION:**

Not classed as dangerous or restricted goods within the meaning of national and international transport regulations.

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**15: REGULATORY INFORMATION:**

Base: No hazard labels, R-phrases or S-phrases required.

Hardener: Xi irritant Contains isocyanates.  
R 43 may cause sensitisation by skin contact  
S 24 avoid contact with skin

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**16: OTHER INFORMATION:**

The base and hardener are mixed together in the approximate ratio as follows:

base: 70-90 % by weight  
hardener: 10-30 % by weight

All the foregoing information should be regarded as being applicable to the finished coating as well as to the individual base and hardener components.

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