Ref: HSD/U1
Issue No: 6
Date of Issue: 23rd November, 2005

UNIVERSAL SEALANTS (UK) LIMITED

NUFINS DIVISION
Kingston House, 3 Walton Road, Pattinson North,
Washington, Tyne & Wear. NE38 8QA
Telephone No: 0191 416 8360 Fax No: 0191 415 5966

1. Product Identification

Trade Name: **URASCREED**

Description: Three component polyurethane floor screeding material.

2. Composition / Information on Ingredients

Ingredient	CAS Number	Conc. (w/w)	Classification	R. Phrases
BASE COMPONENT				
Solvent Naptha	64742-95-6	<10%	F,Xn,N	10,65,66,67,51/53
1,2,4-Trimethylbenzene (all isomers or mixtures)	25551-13-7	<5%	F,Xn,N	10,20,36/37/38,51/53
Mesitylene	108-67-8	<2%	Xi	37
Ferric Oxide Pigments	1332-37-2	<10%	None	None
HARDENER COMPONENT				
4,4'-Diphenylmethane di-isocyanate (mixture)	9016-87-9	100%	Xn	20,36/37/38,42
AGGREGATE COMPONENT				
Quartz Grits	None	<70-100%	None	None
Crystalline Silica	None	Trace	Xn	20,48

NOTE: Benzene (CAS No. 71-43-2) will normally be present in trace amounts but will always be less than 0.1% w/w marker level in the 21st ATP to the Dangerous Substances Directive. This product is NOT CLASSIFIED as a carcinogen under the CHIP3 regulations.

3. Hazard Identification

Base: Flammable. Harmful, may cause lung damage if swallowed. Repeated exposure has the potential to cause skin dryness or cracking, possibly leading to dermatitis. The vapours from this material may cause drowsiness and dizziness. The product is toxic to aquatic organisms and may cause long-term damage to the aquatic environment.

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

Aggregate: Possibility of dust generation when handling. The low level of crystalline silica is unlikely to present a hazard during normal conditions of use.

4. First Aid Measures

Inhalation: In case of drowsiness or sickness remove to fresh air, keep patient warm and at rest. If unconscious, turn to the recovery position. Seek medical assistance.

Skin Contact: NOTE: Effects may be delayed. Promptly remove contaminated clothing and wash the affected area with plenty of soap and water to ensure all traces of product are removed, then rinse thoroughly. Any contaminated clothing must be thoroughly cleaned before re-using. Seek medical advice if irritation persists.

Eye Contact: Flush with copious amounts of clean water for at least 15 minutes, with the eye lids held open. Seek medical attention.

Ingestion: Wash out mouth with water. Keep patient at rest and obtain medical attention. DO NOT INDUCE VOMITING.

5. **Fire Fighting Measures**

Suitable Extinguisher Media: Alcohol-resistant foam, dry powder, carbon dioxide or sand.

Unsuitable Extinguishing Media: Water.

Exposure Hazards: May give off toxic fumes if heated or involved in a fire, including carbon dioxide, carbon monoxide and hydrogen cyanide.

Special Protective Equipment: Full face, positive pressure, self-contained breathing apparatus and full protective clothing.

6. **Accidental Release Measures**

Personal Precautions: Wear protective equipment as specified in Section 8. Do not eat, drink or smoke. Avoid contact with skin and eyes. Eliminate all ignition sources.

Environmental Precautions: Eliminate all ignition sources. Keep people and animals away. Prevent entry into drains, sewers and watercourses. If spillage enters drains leading to sewerage works inform the local water company. If spillage enters rivers or watercourses inform the Environment Agency.

Spillages: Cordon off area. Absorb/contain spillage using inert absorbent granules, sand or earth. Transfer collected material to heavy-duty plastic/steel drums and keep in a well ventilated place for subsequent safe disposal. See Section 13.

7. **Handling and Storage**

Handling: No specific precautions required when handling unopened containers; follow any relevant manual handling guidance. Avoid contact with water, alcohols, amines and other materials that may react with isocyanates. Refer to Sections 6 and 8 if exposure to product is possible. Wash thoroughly with soap and water before eating, drinking or smoking, and after work.

Storage: Store in original containers in a well ventilated area away from heat, ignition sources or open flame. Do not store near acids. Isocyanates react with water to liberate carbon dioxide. Any ingress of moisture into an isocyanate container, whether full or empty, can lead to a pressure build-up and subsequent explosion.

8. **Exposure Controls / Personal Protection**

Occupational Exposure Standards:	Isocyanates (as -NCO): 8 Hour TWA 0.02mg/m^3, 15 min STEL 0.07mg/m^3 MEL (Sens). These exposure limits must not be exceeded at any time during the exposure period. Hydrocarbon Solvent (from raw material composition): 8 Hour TWA 150mg/m^3 OEL (calculated). General Dusts: 8 Hour TWA 10mg/m^3 (total inhalable dust), 4mg/m^3 (respirable) OES. While the base component contains general dusts, which have Occupational Exposure Standards assigned to them, they are not present in powder form and therefore do not present an inhalation hazard. Crystalline Silica - 8 hour TWA 0.3mg/m^3 (respirable) MEL. This exposure limit must not be exceeded at any time during the exposure period. The aggregate component contains crystalline silica and general dusts, which have Occupational Exposure Standards assigned to them, and therefore present a dust inhalation hazard while handling.
Engineering Control Measures:	Refer to any applicable COSHH assessments. Engineering controls should be used where practicable in preference to personal protection and may include physical containment and good ventilation.
Respiratory Protection:	If levels of isocyanate or solvents exceed the above limits use an approved respirator fitted with an appropriate gas cartridge (organic substance). An approved respirator and filter medium for dusts should be used if engineering controls are unlikely to control exposure below the relevant exposure standards when handling the aggregate component. All items must conform to EN149 and should be suitable for the levels of contamination present in the workplace.
Hand Protection:	Wear Neoprene or Nitrile gloves or gauntlets. These must be manufactured to EN374. The material breakthrough time should be stated by the glove manufacturer, and must be observed at all times.
Eye Protection:	If splashing of the product is likely chemical resistant goggles conforming to BS 2092 should be worn.
Body Protection:	Wear suitable impervious, chemical resistant overalls.
Foot Protection:	Wear chemical resistant safety footwear.
Hygiene Measures:	Handle in accordance with good industrial hygiene and safety practice.

9. **Physical and Chemical Properties**

Appearance: (Base) Pigmented liquid
(Hardener) Brown liquid
Aggregate: Sand coloured aggregate

Boiling Point: Base 155-181°C
Hardener N/D

Odour: (Base) Aromatic
(Hardener) Musty
Aggregate: None

Vapour Pressure @ 20°C: (Base) >1000 mbar
(Hardener) <0.00001mbar

pH: N/A

Evaporation Rate (Butyl Acetate = 1): 0.21

Flash Point: (Base) >41°C
(Hardener) >200°C

Flammable Limits in Air: **Upper:** 7.0%
Lower: 0.8%

Solubility: (Base) Immiscible in water
(Hardener) Insoluble (reacts)

Autoignition Temperature: (Base) >450°C
(Hardener) >400°C

Flammability: (Base) Flammable liquid
(Hardener) Not flammable

Specific Gravity: 1.7 (Mixed)

10. **Stability and Reactivity**

Stability: Stable under normal conditions (see Section 7).

Materials to Avoid: Alcohols, glycols, acids (organic and inorganic), oxidising agents, amines, water, steam, inorganic alkalis.

Hazardous Decomposition Products: Toxic gases/vapours/fumes of: Carbon dioxide(CO_2). Carbon monoxide (CO). Oxides of: Nitrogen. Hydrogen cyanide (HCN). Nitrous gases (NO_x).

11. **Toxicological Information**

There is no data available on the product itself.
Contains isocyanates which may cause allergic reaction and irritation of the respiratory system, however the low volatility of the product makes this unlikely during normal conditions of use. Once the base and hardener have been mixed together, the isocyanate in the hardener component will react with the base and be progressively consumed.

Inhalation: Harmful by inhalation. May cause sensitisation by inhalation. Vapour concentrations above the recommended exposure levels are irritating to the eyes and respiratory tract, and may cause headaches, dizziness and have other CNS effects.

Eye Contact: May cause Irritation.

Skin Contact: Irritant for skin and mucous membranes. May cause sensitisation.

Ingestion: May result in irritation to the gastro intestinal tract. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

Health Warnings: Can be hazardous when inhaled and/or following skin contact. May cause allergic reaction and irritation of the respiratory system. Prolonged inhalation of high concentrations may damage the respiratory system. Pulmonary sensitiser and severe pulmonary irritant. Recognised allergen. May also cause sensitisation by skin contact.

12. **Ecological Information**

There is no data available on the product itself.
Hazardous for water. Do not allow the product to reach ground water, water bodies or sewage systems. Must not reach sewage water or drainage ditch undiluted or unneutralised. The liquid product may be neutralised with a mixture of ammonia solution (190g/ltr), water and ethanol.

13. **Disposal Considerations**

Dispose of used containers and un-cured product as hazardous waste, in accordance with all applicable local and national regulations, and in compliance with the Environmental Protection (Duty of Care) Regulations 1991.

14. **Transport Information**

Base:

UN Number:	1866	Packaging Group:	III
ROAD		**AIR**	
ADR Class:	Limited quantity	Air Transport Number:	3
ADR Hazard No:	in compliance with chapter 3.4 LQ7 less than 5 litre per inner package	Packaging Instruction:	310
SEA			
IMDG Class:	3.3		
IMDG Page Number:	3379		
Marine Pollutant:	P		

Proper Shipping Name: Resin solution, flammable (contains solvent naptha and 1,2,4-Trimethylbenzene)

Hardener:
Not classified as hazardous for any mode of transport.

15. **Regulatory Information**

EU Classification and Labelling Particulars:

Base:

Designated Name: URASCREED - BASE

Classification: Flammable and Harmful - Contains Solvent Naptha and 1,2,4-Trimethylbenzene

Indication(s) of Danger: F, Xn & N

Risk and Safety Phrases:

R10:	Flammable.
R65:	Harmful: may cause lung damage if swallowed.

R66:	Repeated exposure may cause skin dryness or cracking.
R67:	Vapours may cause drowsiness and dizziness.
R51/53:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S23:	Do not breathe vapour or spray.
S24:	Avoid contact with skin.
S60:	This material and its container must be disposed of as hazardous waste.
S62:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Hardener:

Designated Name: URASCREED - HARDENER

Classification: Harmful - Contains Isocyanates, see information supplied by the manufacturer.

Indication(s) of Danger: Xn

Risk and Safety Phrases:

R20:	Harmful by inhalation.
R36/37/38:	Irritating to eyes, respiratory system and skin.
R42:	May cause sensitisation by inhalation.
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 advice immediately (show the label where possible).

Aggregate:

Designated Name: URASCREED - AGGREGATE

Classification: Not classified as hazardous

Indication(s) of Danger: N/A

UK Guidance Publications: EH40; Occupational Exposure Limits, HSE. Revised annually.
EH44; Dust in the Workplace: General Principles of Protection, HSE.
EH26; Occupational Skin Diseases - Health and Safety Precautions, HSE.

UK Legislation: Health and Safety at Work, etc Act, 1974, and relevant Statutory Provisions.
Control of Substances Hazardous to Health Regulations, 1999.
The Manual Handling Operations Regulations, 1992.
The Personal Protective Equipment at Work Regulations, 1992.
Chemicals (Hazard Information and Packaging for Supply) Regulations, 2002 - CHIP 3.

16. **Other Information**

Full Text of R-Phrases Referred to above:

R10:	Flammable.
R20:	Harmful by inhalation.
R36/37/38:	Irritating to eyes, respiratory system and skin.
R42:	May cause sensitisation by inhalation.
R48:	Danger of serious damage to health by prolonged exposure.
R51/53:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65:	Harmful: may cause lung damage if swallowed.
R66:	Repeated exposure may cause skin dryness or cracking.
R67:	Vapours may cause drowsiness and dizziness.

Training Advice: Do not use unless trained to do so. Refer to the Technical Data Sheet for the product.

Recommended Uses: For professional use only. This product is designed for use as a polyurethane floor screed for application to concrete floors.

Further Information: This Safety Data Sheet was compiled in accordance with EU Directives 67/548/EEC and 1999/45/EC. Reference was also made to the above legislation and guidance publications.

MSDS First Issued: 5th May 1995

MSDS Revised: 23rd November 2005

Changes in this Version: Section 14 transport reclassification.

Prepared By: F. Stratton

Disclaimer: The information in this document is offered for general health and safety guidance only and is not intended to be a definitive source of advice, nor does it constitute a risk assessment, for which the user is responsible. All information provided in this document is believed to be accurate to the best of our knowledge. Users of the products referred to should observe the recommendations, conditions and instructions relating to any relevant product label, usage information, consent or approval in force at the time. Further and more specific information may be obtained from the supplier on request.