

UNIVERSAL SEALANTS (UK) LIMITED

NUFINS DIVISION

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1. Product Identification

Trade Name: CLEARGARD ANTI-GRAFFITI

Description: Two component polyurethane anti-graffiti coating.

2. Composition / Information on Ingredients

| Ingredient | CAS Number | Conc. (w/w) | Classification | R. Phrases |
|--|------------|-------------|----------------|------------|
| BASE COMPONENT | | | | |
| Aqueous Polyester Polyol | None | 40-60% | None | None |
| Magnesium Aluminium Silicate | 12174-11-7 | <5% | None | None |
| Dibasic Ester Blend | None | <5% | None | None |
| HARDENER COMPONENT | | | | |
| Hexamethylene-1,6-diisocyanate homopolymer | 28182-81-2 | 70-80% | Xi | 43 |
| Dibasic Ester Blend | None | 20-30% | None | None |

3. Hazard Identification

Base: The product is not classified as hazardous. Contains a small amount of volatile organic materials, which are however not classified as hazardous.

Hardener: Irritant, may cause sensitisation by skin contact. Contains a blend of volatile organic materials, which are however not classified as hazardous.

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.

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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.

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 between hardener component and 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 $0.02\text{mg}/\text{m}^3$, 15 min STEL $0.07\text{mg}/\text{m}^3$
MEL (Sens).
These exposure limits must not be exceeded at any time during the exposure period.
Dibasic Ester Blend - 8 Hour TWA $10\text{mg}/\text{m}^3$
(recommended).
General Dusts: 8 Hour TWA $10\text{mg}/\text{m}^3$ (total inhalable dust), $4\text{mg}/\text{m}^3$ (respirable) OES.
While this product contains magnesium aluminium silicate, which has a general dusts exposure limit

assigned to it, it is not present in powder form and therefore does not present an inhalation hazard.

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| 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: | In the unlikely event that levels of isocyanate exceed the above limits use an approved respirator fitted with an appropriate gas cartridge (organic substance). 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

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| Appearance: (Base) Buff liquid (Hardener) Clear liquid | Boiling Point: Base 100°C Hardener 200-230°C |
| Odour: (Base) Mild (Hardener) Sweet | Vapour Pressure @ 20°C: (Base) As water (Hardener) 0.1mm(Hg) |
| pH: N/D | Evaporation Rate (Butyl Acetate = 1): As water |
| Flash Point: (Base) N/A (Hardener) 108°C | Flammable Limits in Air: Upper: N/D Lower: N/D |
| Solubility: (Base) Fully miscible in water (Hardener) Immiscible in water (reacts) | Autoignition Temperature: 370°C |
| Flammability: (Base) Not flammable (Hardener) Not flammable | |

Specific Gravity: 1.1 (Mixed)

10. Stability and Reactivity

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| 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(CO₂).
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: Hardener is irritant. May cause sensitisation. 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

The Base and Hardener components are not classified as hazardous for transport.

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15. Regulatory Information

EU Classification and Labelling Particulars:

Base:

Designated Name: CLEARGARD ANTI-GRAFFITI - BASE

Classification: Not classified as hazardous

Indication(s) of Danger: N/A

Risk and Safety Phrases:

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39: Wear suitable gloves and eye/face protection.

Hardener:

Designated Name: CLEARGARD ANTI-GRAFFITI - HARDENER

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

Indication(s) of Danger: Xi

Risk and Safety Phrases:

R43: May cause sensitisation by skin contact.
S24: Avoid contact with skin.
S37: Wear suitable gloves.

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:

R43: May cause sensitisation by skin contact.

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 an anti-graffiti sealer coat for application over Covercrete.

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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.

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Changes in this Version: Sections 2, 8, 9 and 15 revised to reflect updated data.

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.