

PRODUCT SAFETY DATA SHEET

According to EC directive 91/155/EEC and subsequent amendments

Version: 1.0

Revision Date: 18/06/02

GEOCHEM UNIVERSAL PVA ADHESIVE & SEALER

1. Identification of the Product.

Commercial Name: Geochem Universal PVA Adhesive & Sealer
Name and Address of Supplier: Geocel Limited
Western Wood Way
Langage Science Park
Plympton
Plymouth
PL7 5BG
United Kingdom
Main Switchboard: +44 (01752) 202060
Main Fax: +44 (01752) 334384

2. Composition/Information on Ingredients.

Chemical Characterisation: Vinyl acetate emulsion incorporating stabilisers and plasticisers (preparation)

HAZARDOUS INGREDIENTS:

| Name | CAS No | % | Symbols & Health Risk Phrases |
|---------------|----------|-------|-------------------------------|
| Vinyl acetate | 108-05-4 | < 0.5 | R11 Highly Flammable (F) |

1 According to Commission Directive 88/379/EEC (Article 3 6aa)

3. Hazards Identification.

Not classified as hazardous

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4. First Aid.

| | |
|-------------------------------------|---|
| Skin: | Wash with soap and water before product dries. |
| Eyes: | Flush with water for a minimum of 15 mins. Obtain medical attention if discomfort persists. |
| Inhalation: | Remove to fresh air. Consult doctor if symptoms persist. |
| Ingestion: | Drink water. Obtain medical attention if amount ingested exceeds 20ml. |
| Other first aid information: | None known. |

5. Fire-Fighting Measures.

| | |
|--|---|
| Extinguishing media: | Foam carbon dioxide, dry powder, fine water spray. |
| Unsuitable extinguishing media: | None known. |
| Unusual fire fighting hazards: | None known. |
| Special fire fighting procedures: | Incompletely burnt carbon products, carbon dioxide and carbon monoxide. |

6. Accidental Release Measures.

| | |
|--|---|
| Personal precautions: | Wear proper protective equipment, as described in Section 8. Beware of slippery floors. |
| Precautions to protect the environment: | Prevent ingress into drains and watercourses. |
| Clean up procedures: | Contain spillage and absorb onto sand or other absorbent material. Place into a container fitted with a lid. |

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7. Handling and Storage.

| | |
|--|---|
| Handling precautions: | Local and general ventilation is required during use. Avoid breathing vapour and open drums in a ventilated area. Small amounts of organic compound may accumulate in the headspace of unventilated containers. |
| Storage: | Between 5°C and 25°C in original containers. |
| Unsuitable packaging materials: | None known. |
| Incompatibilities: | None known. |
| Other information: | None known. |

8. Exposure Controls and Personal Protection.

Exposure controls: Refer to section 7

Exposure controls for hazardous components

| Name | CAS No | Exposure Limits (1) |
|---------------|----------|---|
| Vinyl Acetate | 108-05-4 | 10ppm (OES 8hr, TWA) 20ppm (OES 15mm STEL) |

Personal Protective Equipment

| | |
|----------------------------|--|
| Respiratory: | Dust masks required if spray is generated |
| Hand: | Rubber or plastic gloves should be worn |
| Eye: | Safety glasses or goggles should be worn |
| Skin: | Impervious overalls should be worn if splashing is possible |
| Industrial hygiene: | Wash hands after use especially before eating, drinking or smoking. Contaminated clothing must be washed before reuse. |
| Other information: | None known |

(1) According to Health & Safety executive document EH40

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9. Physical and Chemical Properties.

Appearance

| | |
|---------|--------|
| Form: | Liquid |
| Colour: | White |
| Odour: | Faint |

Safety related information

| | |
|----------------------------------|----------------|
| PH: | 4-6 |
| Boiling point/Boiling range: | 100°C |
| Melting point/Melting range: | 0°C |
| Flashpoint: | Not applicable |
| Flammability (solid, gas): | Not applicable |
| Autoflammability: | Not applicable |
| Explosive properties: | Not determined |
| Oxidising properties: | Not determined |
| Vapour pressure: | As water |
| Specific gravity: | 1.07 |
| Solubility in water: | 100% |
| Solubility in fat: | Not determined |
| Oil/water partition coefficient: | Not determined |

Other data

| | |
|-----------------------------------|----------------|
| Vapour density (air=1): | Not determined |
| Evaporation rate (ethyl ether=1): | Not determined |
| Viscosity: | 110-160 P |
| % volatiles: | Not determined |

The above information is not intended for use in preparing product specifications. Contact Geocel before writing specifications.

10. Stability and Reactivity.

| | |
|-------------|-----------|
| Stability: | Stable |
| Reactivity: | Not known |

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11. Toxicological Information.

Possible health effects

| | |
|---|---|
| Skin (3): | Repeated or prolonged contact may cause defatting and lead to irritation. |
| Eyes (3): | May cause irritation. |
| Inhalation (3): | May cause choking, coughing or dizziness if organic contents are inhaled. |
| Ingestion (3): | Nausea. |
| Other health hazard information: | Long-term experience of this product type has not indicated any serious acute or chronic effects resulting from handling. |
| LC50: | Not determined |
| LD50: | Not determined |

1 Based on product test data

2 Based on assessments from related products

3 This information is based either on test data, extrapolation from tests on similar materials, review of components data, or a combination of these sources.

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12. Ecological Information.

Elimination (3)

Persistence: Not determined

Degradability: Poorly biodegradable

Behaviour in aquatic compartment (3)

Mobility: Product is miscible in water and may be transported long distances.

Bioaccumulation: Not susceptible to bioaccumulation.

Ecotoxicity (3)

Aquatic: May cause milky discoloration. May be harmful to aquatic organisms.

Terrestrial: Not determined.

Sewage treatment: Low concentration in water for sewage treatment is unlikely to reduce sludge activity. The polymer is largely absorbed with the sludge and thus eliminated from the waste stream.

1 Based on product test data

2 Based on assessments from related products

3 This information is based either on test data, extrapolation from tests on similar materials, review of component data, or a combination of these sources.

13. Disposal Considerations.

Product disposal: Disposal in accordance with local and national regulations.

Packaging disposal: Packaging should be disposed of in accordance with regional and/or national regulations.

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14. Transport Information.

Not classified as hazardous for transport

UNNO:

Symbols:

Road & Rail Transport (ADR/RID)

Class:

Hazard name:

Tremcard:

Sea Transport (IMO)

Class:

Packing group:

Ems:

MFAG:

Proper shipping name:

IMO marine pollutant:

Air Transport (ICAO)

Class:

Proper shipping name:

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15. Regulatory Information.

EEC Supply classification & labelling

Not classified as hazardous for supply

S2: Keep out of reach of children
S24/25: Avoid contact with skin

National legislation

Other regulations

EINECS/ELINCS: All ingredients listed or exempt
TSCA: Not determined
MITI: Not determined
DSL: Not determined
AICS: Not determined

The following sections have been changed in this version: All sections

(1) According to 93/18/EEC as adapted for the 3rd time to technical progress commission directive 88/379/EEC

16. Other Information.

This product safety data sheet was prepared in compliance with Commission Directive 91/155/EEC, 67/548/EEC and 1999/45/EC as well as their relevant amendments, on the approximation of laws, regulations and administrative provisions relative to the classification, packaging and labelling of dangerous substances and preparations.

It is the responsibility of persons in receipt of this Product Safety Data Sheet to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces a formulation containing the Geocel product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from the Geocel Product Safety Data Sheet to their own Product Safety Data Sheet in compliance with Commission Directive 1999/45/EC.

All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS. Geocel shall not be held responsible for any defect in the product covered by this SDS, should the existence of such defect not be detectable considering the current state of scientific and technical knowledge.

As stated above, this Safety Data Sheet has been prepared in compliance with applicable European law. If you purchase this material outside Europe, where compliance laws may differ, you should receive from your local Geocel supplier a SDS applicable to the country in which the product is sold and intended to be used. Please note that the appearance and content of the SDS may vary – even for the same product – between different countries, reflecting the different compliance requirements. Should you have any question, please refer to your local Geocel supplier.