Protectakote Clear Primer Treatment

Prepared in accordance with European Regulation 1907/2006/EC, Article 31

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 **Product identifier**
Trade name: PROTECTAKOTE CLEAR PRIMER TREATMENT

1.2 **Relevant identified uses of the substance or mixture and uses advised against**
Application of the substance: organosilane surface modifier

1.3 **Details of the supplier of the safety data sheet**
Manufacturer/Supplier: Zest Polyurethanes
Alternator Avenue, Montague Gardens, Cape Town, South Africa, 7441, Tel: +27 (021) 555-3090
Further information obtainable from: The Technical Manager, Zest Polyurethanes

1.4 **Emergency telephone number:** Formbar Limited, Manor Farm Court Yard, West Hagbourne OX11 0ND. Tel: +44 (0)1235 850368

2. HAZARDS IDENTIFICATION

2.1 **Classification of the substance or mixture**
Classification according to Directive 67/548/EEC and Directive 2001/59/EC: R10, R20/21/22, R34.
Classification according to Directive 67/548/EEC and Directive 2006/102/EC: S24, S25, S42, S43, S62.
Information concerning particular hazards for human and environment: Flammable, irritant, may cause sensitisation by inhalation.
Classification system: The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

2.2 **Label elements**
Labelling according to EU guidelines:
The product has been marked in accordance with EU Directives / respective national laws.
The product has been classified and marked in accordance with EU Directive / Ordinance on Hazardous Materials.
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.

Risk phrases:

R10	Flammable
R20	Harmful by inhalation
R36/37/38	Irritating to eyes, respiratory system and skin
R42	May cause sensitisation by Inhalation

Safety phrases:

S24	Avoid contact with skin
S25	Avoid contact with eyes
S42	During spraying wear a cartridge-type respirator with cartridge for organic fumes
S43	In case of fire, use foam/carbon dioxide/ dry powder. Use water fog to cool. Do NOT use water jets!
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible

2.3 **Other hazards**
Harmful. Contains isocyanate. Temporary or minor injury possible even if treatment is given. No carcinogenic, mutagenic or genetic effects established. May have short-term environmental effects.
Results of PBT and vPvB assessment: Not applicable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.2 **Chemical characterisation: Mixtures**
Description: Mixture of substances listed below with non-hazardous additions

Dangerous components			
CAS: 1330-20-7 EINECS: 215-535-7	XYLENE (XYLOL): xylene (mixed isomers)	 F, Xn R10, R20/21, R38 S2, S25	35 – 45% by mass
CAS: EINECS:	BUTYL ALCOHOL:	 XN R10,20	25% by mass
CAS: EINECS:	AMINOPROPYL TRIETHOXY SILANE:	R22, R34	5% by mass

Refer to Section 16 for hazard symbol codes and statements of R and S phrases listed in this table.

4. FIRST AID MEASURES

4.1 **Description of first aid measures**
After skin contact: Use hand cleaner/soap and water. Remove contaminated clothing. If skin irritation continues, consult a doctor. After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. After inhalation: Move to fresh air. In case of any discomfort, seek medical attention immediately.

4.2 **Most important symptoms and effects, both acute and delayed**
Inhalation sensitiser with accumulative effects. Risk of dermatitis. May cause lung damage if swallowed.

4.3 **Indication of any immediate medical attention and special treatment needed**
If ingested, do not induce vomiting. Seek immediate medical attention.

5. FIRE FIGHTING MEASURES

5.1 **Extinguishing media**
Suitable extinguishing agents: Foam. Carbon dioxide. Dry powder. Fog to cool and control.
Unsuitable extinguishing agents, for safety reasons: Do NOT use water jets. Containers can become pressurised if contents are contaminated with water.

5.2 **Special hazards arising from the substance or mixture**
Flammable with toxic fumes.

5.3 **Advice for firefighters**
Wear protective equipment and respirators. Blown or distorted containers should be handled with extreme caution.

6. ACCIDENTAL RELEASE MEASURES

6.1 **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

6.2 **Environmental precautions**
Do not allow to enter drains or sewers / surface or ground water.

6.3 **Methods and material for containment and cleaning up**
Ensure adequate ventilation. Hazardous in liquid state. Solidify by reaction with water before disposal.

6.4 **Reference to other sections**
See section 7 for information on safe handling.
See section 8 for information on personal protection equipment.
See section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 **Precautions for safe handling**
Information about protection against fire and explosion: Flammable. No open flames. No smoking.

7.2 **Conditions for safe storage, including any incompatibilities**
Requirements to be met by storerooms and receptacles: Store separately from any reactive substances, especially oxidisers.
Information about storage in one common facility: As above.
Further information about storage conditions: Keep containers tightly sealed.

7.3 **Specific end use(s)**
Open with care. Cover lid / bung with a cloth while releasing pressure.
Generates carbon dioxide gas from reaction with water. Do not seal if contaminated with water due to danger of bursting.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: Adequate ventilation. See items 7.1 and 7.2.

8.1 **Control parameters**
Ingredients with limit values that require monitoring in the workplace: Monitoring is not required. The product has no quantities of materials with critical values.

Additional information:

Component:	IOELV TWA (8 hours):		IOELV STEL (15 minutes):		Notes:
xylene (1330-20-7)	50 ppm	220 mg/m^3	100 ppm	441 mg/m^3	Skin

8.2 **Exposure controls**
General protective and hygiene measures: Wash hands before breaks and at the end of work. Do not inhale gases/fumes.

Personal protective equipment:

Respiratory protection:
A cartridge-type respirator with cartridge for organic fumes is essential for spraying operations.

Eye protection:
Wear tightly sealed goggles or face shield.

Hand protection:
Wear nitrile rubber gloves.

Material of gloves: The selection of suitable gloves also depends on marks of quality, which vary from manufacturer to manufacturer. The resistance of the glove material cannot be calculated in advance and therefore has to be checked prior to the time of application.
Penetration of glove material: Observe the exact breakthrough time supplied by the manufacturer.
Skin protection: Wear overalls and safety boots.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 **General information**

Appearance:

Physical state	Liquid
Colour	Clear
Odour	Sweetish
Odour threshold	Not determined

pH value:	N/A

Change in condition:

Melting point/Melting range	< –46 °C
Boiling point/Boiling range	140 °C
Flash point	27 °C (ASTM D56)
Flammability (solid, gaseous)	Flammable
Ignition temperature	> 200 °C
Decomposition temperature	200 °C
Self-igniting	Product is not self-igniting.
Danger of explosion	Explosion of mixtures with oxygen possible. Produces carbon dioxide gas when mixed with water. Subsequent sealing of drums can lead to pressure burst.

Explosion limits:

Upper	2.1 % by volume
Lower	11.5 % by volume
Vapour pressure at 20 °C	14.2 hPa
Density at 20 °C	1.03 g/cm^3
Relative density	1.03 (water = 1.00)
Vapour density	Heavier than air
Evaporation rate	Not determined
Solubility in / Miscibility with water	Not miscible, reacts with water
Segregation coefficient (n-octanol/water)	Not determined

Viscosity:

Dynamic at 20 °C	56 - 58 ku (Krebbs units)
Kinematic	Not determined

Solvent content:

Organic solvents	< 30 % by mass
Water	< 0.1 % by mass
Solids content	> 70 % by mass or 65 % by volume

9.2 **Other information**

No further relevant information available.

VOC (EU)	< 73 % by mass
VOC(EU)	< 62 g/ℓ
VOCV	< 85 % by volume

10. STABILITY AND REACTIVITY

10.1 **Reactivity**

Reacts with water.

10.2 **Chemical stability**

Thermal decomposition / conditions to be avoided: Could produce static discharge – use earthing.

10.3 **Possibility of hazardous reactions**

Stable if stored under normal conditions.

10.4 **Conditions to avoid**

When exposed to abnormally high temperatures containers will bulge and possibly burst.

10.5 **Incompatible materials**

Oxidisers. Reacts with water, generating carbon dioxide gas.

10.6 **Hazardous decomposition products**

Hazardous decomposition products such as carbon monoxide, carbon dioxide, oxides of nitrogen and smoke may be produced.

11. TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects**

Acute toxicity: LD_{50} / LC_{50} values relevant for classification:

XYLENE:		IPDI:	
Oral (LD_{50})	4300 mg/kg (rat)	Oral (LD_{50})	> 2600 mg/kg (rat)
Dermal (LD_{50})	> 1700 mg/kg (rabbit)	Dermal (LD_{50})	1060 mg/kg (rabbit)
Inhalation (LC_{50})	27.6 mg/ℓ / 4 hours (rat)	Inhalation (LC_{50})	0.67 mg/ℓ / 4 hours (rat)

No carcinogenic, mutagenic, or genetic effects have been established.
Primary irritant effect: Skin and Inhalation sensitiser.

XYLENE

On the skin	Practically non-irritating.
On the eyes	Irritant.
Orally	Low toxicity.
Through inhalation	Harmful. Can irritate the respiratory tract and cause headaches and giddiness. Sensitisation: Prolonged skin contact may defat the skin resulting in possible irritation and dermatitis. Prolonged inhalation may cause CNS disturbances.

IPDI

On the skin	Slight to moderate irritation. May stain skin.
On the eyes	Moderate eye irritation. May cause transient corneal damage.
Orally	Low toxicity. May cause gastrointestinal irritation.
Through inhalation	Can cause severe irritation of the respiratory tract with burning sensation of the nose and throat. Effects can be delayed.
Sensitisation	Respiratory sensitisation may occur. Chronic exposure by inhalation may result in a permanent decrease of lung function. May cause sensitisation by skin contact.

12. ECOLOGICAL INFORMATION

12.1 **Toxicity**
Aquatic toxicity: None of the components is persistent in the aquatic environment.

12.2 **Persistence and degradability**
Biodegradable. Once solidified, can be disposed of in landfill sites (consult local regulations).

12.3 **Bioaccumulative potential**
Not bioaccumulative.

12.4 **Mobility in soil**
Low due to solidification by reaction with water.
Additional ecological information:
General notes: Considered harmful to terrestrial vertebrates. May have short-term environmental effects. Contain, monitor and remove.

12.5 **Results of PBT and vPvB assessment**
Not applicable.

12.6 **Other adverse effects**
No further relevant information available.

13. DISPOSAL CONSIDERATIONS

13.1 **Waste treatment methods**
Recommendation: Hazardous in liquid state. Solidify by reaction with water before disposal. Danger of bursting – do not seal. Use reputable waste disposal contractors. Destroy used containers. Consult local official regulations.

European waste catalogue	
08 00 00	Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks.
08 01 00	Wastes from MFSU and removal of paint and varnish.
08 01 11	Waste paint and varnish containing organic solvents or other dangerous substances.

Uncleaned packaging

Recommendation: Leave container unsealed for 3 to 4 days to solidify from atmospheric moisture. Once solid, container may be disposed of in a landfill site. Disposal must be made according to official regulations.

14. TRANSPORT INFORMATION

14.1 **UN-Number**
ADR, IMDG, IATA UN 1263

14.2 **UN proper shipping name**
ADR 1263 PAINT
IMDG, IATA PAINT

14.3 **Transport hazard classes**

ADR		IMDG, IATA	
			
Class	3 Flammable liquids	Class	3 Flammable liquids
Label	3	Label	3

IMO class: 3.3
EA code: 127
HAZCHEM code: 3 (Y)

14.4 **Packing group**
ADR, IMDG, IATA III

14.5 **Environmental hazards**
Marine pollutant: ND (Not Dangerous)

14.6 **Special precautions for user** Warning: Flammable liquids
Danger code (Kemler): 33
EMS Number: F-E~S-E

14.7 **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable

Transport/Additional information: For ADR and IMDG: Transport and packing are in accordance with the regulation for limited quantities.
This product is therefore non-dangerous goods.

ADR
Limited quantities (LQ) 1 L and 4 L
Transport category 3

15. REGULATORY INFORMATION

15.1 **Safety, health and environmental regulations/legislation specific for the substance or mixture**

Labelling according to EU guidelines:
The product has been marked in accordance with EU Directives / respective national laws.
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
The R and S phrases may be omitted if packaging contains no more than 0.125 litre.

Conforms to EC regulation number 1907/2006 REACH, Annex II.

Conforms to US Navy Military spec MIL-PRF-32171A – Deck Coatings, high durability/QPL-32171.

Risk phrases: R10 Flammable
R20 Harmful by inhalation

	R36/37/38	Irritating to eyes, respiratory system and skin
	R42	May cause sensitisation by inhalation
Safety phrases:	S24	Avoid contact with skin
	S25	Avoid contact with eyes
	S42	During spraying wear a cartridge-type respirator with cartridge for organic fumes
	S43	In case of fire, use foam/carbon dioxide/dry powder. Use water fog to cool. Do NOT use water jets!
	S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible

EC Label Name: PAINT
EC Classification: Flammable. Harmful.
EC Symbols: F, Xn
National legislation

Further information:
HS (G) 178, Spraying of Flammable Liquids, HSE., HS (G) 176, Storage of Flammable Liquids in Tanks, HSE., HS (G) 51, Storage of Flammable Liquid in Containers, HSE., HS (G) 37, An introduction to Local Exhaust Ventilation, HSE., Health and Safety at Work etc Act, 1974, and relevant Statutory Provisions., Environmental Protection Act, 1990 and associated legislation., The Special Waste Regulations, 1996 and amendments., The Chemicals (Hazard Information and Packaging for Supply) Regulations, 1994 and amendments., EH 40, Occupational Exposure Limits, HSE. Revised annually., HS(G) 53, Respiratory Protective Equipment - A Practical Guide for Users, HSE., HS(G) 97, A Step by Step guide to COSHH Regulations, HSE., EH 173, Monitoring Strategies for Toxic Substances, HSE.

15.2 **Chemical safety assessment**
A Chemical Safety Assessment has not been carried out.
The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

16. OTHER INFORMATION

CONTAINS ISOCYANATE - POTENTIAL SENSITISER - ENSURE PRECAUTIONS ARE TAKEN.
PAY SPECIAL ATTENTION TO STORAGE AND HANDLING REQUIREMENTS.
IN CASE OF ANY DISCOMFORT FROM CONTACT WITH THE MIXTURE, ALWAYS SEEK MEDICAL ADVICE.

Hazard codes, R phrases and S phrases listed in item 3.2:
F = Flammable; N = Dangerous for the environment; T = Toxic; Xn = Harmful

R10	Flammable
R20/21	Harmful by inhalation and in contact with skin
R23	Toxic by inhalation
R36/37/38	Irritating to eyes, respiratory system and skin
R38	Irritating to skin
R42/43	May cause sensitisation by inhalation and skin contact
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S2	Keep out of the reach of children
S25	Avoid contact with eyes
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)
S61	Avoid release into the environment. Refer to special instructions/ safety data sheet

This MSDS is prepared in accordance with European Regulation 1907/2006/EC, Article 31, Addendum II.

All information is given in good faith, but without any guarantee in respect of accuracy.
No responsibility is accepted for errors or omissions or the consequences thereof.

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