



MATERIAL SAFETY DATA SHEET.

1. IDENTIFICATION OF PRODUCT AND COMPANY

Product name : ARMAGLAZE PACK A of an Architectural / anti-graffitti coating

- 1.2 Company: D. Adam & Associates / ACTEL Coatings
Clarendon, 17 High Cross Avenue,
Melrose TD6 9SQ Scotland, U.K.
Tel: +44 (0) 189682697 Mob 07880 805478
E: dougadam@globalnet.co.uk
www.enviroguard-anti-graffiti.co.uk

2. COMPOSITION/ HAZARDOUS INGREDIENTS

Polyester resin containing organic/inorganic pigments in aromatic and aliphatic solvents

3. HAZARD IDENTIFICATION

This product is flammable flash point 21°C-32°C

4. FIRST AID MEASURES

Eye contact : Wash out with copious amounts of water.
If irritation persists seek medical advice.
Skin contact : Wash off with soap and water. Do not use solvents or thinners.
Ingestion : Wash out the mouth with water. Obtain medical advice.
Inhalation : Move the exposed person into fresh air. Get prompt medical attention.

5. FIRE FIGHTING MEASURES

Use Carbon dioxide, Dry Powder, Halogenated Hydrocarbons, Foam. Never use water.
Fire will produce dense black smoke from wet product containing hazardous products of combustion. Decomposition products may be hazardous to health. Use self contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

Spillages should be contained using soil or other adsorbent material to prevent contamination of drains and water courses. Waste material from spillages should be disposed of in accordance to local regulations. Spilled material may cause surfaces to become slippery. Clean-up personnel should use respiratory and/or liquid contact protection.

7. HANDLING AND STORAGE

Store securely in the original labelled containers in cool, dry, well ventilated conditions away from heat sparks and open flames.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient name	%conc range	Symbol	OES. (8hrs)	OES 15mins	Risk phrases	Notation
Xylene, mixture of isomers	>5%&=<10%	Xn,Xi	100	150	20/21-38-10	Sk OES
N-Butyl Acetate	>10%&=<25%		100	200	10	OES
1-Methoxy-2-Propyl Acetate	>10%&=<25%		150		10	SUP OES
MIBK	>2.5%&=<5%	F	50	100	11	Sk OES

Notes: LTEL = Long term Exposure Limit - 8 hour time weighted average
STEL = Short term exposure limit - 10 minute reference period
Notations = Sk - risk of absorption through skin Sen - Respiratory sensitiser
OES = Occupational exposure Limit MEL = Maximum exposure limit
OEL's are from E40 except where marked SUP which are assigned by the supplier of the substance

Exposure controls : Respiratory protection is not normally required but if spraying applications are involved appropriate air fed masks should be worn. Ensure sufficient local exhaust ventilation.

Personal protection : Respiratory, wear air fed mask when spraying, to prevent inhalation.
Hands, the use of suitable solvent resistant gloves is recommended.
Eyes, safety glasses or goggles, (BS2902).
Skin. Apron, overalls

9. PHYSICAL AND CHEMICAL PROPERTIES

State	: Liquid.	Flash point	: >21°C & < 32°C Abel cup
Colour	: Pigment	Solubility	: Not water miscible
Lower explosion limit	: 1.1% vol	Density @ 25°C:	1.034gms/cc
Vapour density	: Heavier than air	VOC content	: .53 Kgs/lit

10. STABILITY AND REACTIVITY

This product is stable in excess of one year when stored between 5°C and 30°C. See sec. 7

11. TOXICOLOGICAL INFORMATION

There is no data on this product. Exposure to organic solvent vapours may result in adverse health effects. Eye splashes and skin care should be avoided so as to prevent irritation.

12. ECOLOGICAL INFORMATION

No data available. Do not release into surface waters.

13. DISPOSAL CONSIDERATIONS

Do not release into surface waters. Wastes including empty containers should be disposed of in accordance with the Control of Pollution & Environmental Protection Acts. Disposal of large quantities as waste must always comply with existing EEC, national and local regulations. Registered waste carriers and licensed disposal sites must be used.

14. TRANSPORT CONSIDERATIONS

ROAD/RAIL	: SI number1263	PACKING GRP ...111	Class...3A
IMDG	: Packing grp <=30 lts....111	>30lts....111	Class...3.2	
	Marine pollutant	: Yes	UN No 1263	
	Main risk	: Flammable liquid		
	Shipping name	: Paint		
ICAO/IATA	: Packing grp <=30 lts....111	>30lts....111	Class...3	
	UN No 1263			
	Main risk	: Flammable liquid		
	Shipping name	: Paint		
INTERNATIONAL:	Packing grp	111	Class ...3	
ROAD / RAIL	Main risk	: Flammable liquid	UN No 1263	
	Shipping name	: Paint		

15. REGULATORY INFORMATION

This product is classified and labelled for supply in accordance with the Chemicals (Hazard Information, packaging for supply) Regulations 1994 as follows:

15.1 Classification : Flammable
15.1 Labelling : Flammable liquid
15.2 Symbol (s) :
15.3 R-phrases : R - 10, Flammable
15.4 S-phrases : S - 2 Keep out of reach of children
S - 7/9 Keep container closed and in a well ventilated place
S - 16, Keep away from sources of ignition. No smoking.
S - 29 Do not empty into drains
P-phrases For use only in commercial and industrial applications
The provisions of the Health & Safety at Work Act and the Control of Substances Hazardous to Health Regs apply to the use of this product at work

16. OTHER INFORMATION

Text of any R phrases in Sec 8: R10 Flammable
R11 Highly Flammable
R20/21 Harmful by inhalation and in contact with skin
R38 Irritating to skin

This Material Safety Data Sheet dated 20/01/1997 follows the requirements of EEC directive 91/155/EEC

Revision date May 1999



MATERIAL SAFETY DATA SHEET.

1. IDENTIFICATION OF PRODUCT AND COMPANY

Product name : ARMAGLAZE PACK B Hardener of an Architectural / anti-graffitti paint

1.2 Company: D. Adam & Associates / ACTEL Coatings
Clarendon, 17 High Cross Avenue,
Melrose TD6 9SQ Scotland, U.K.
Tel: +44 (0) 189682697 Mob 07880 805478
E: dougadam@globalnet.co.uk
www.enviroguard-anti-graffiti.co.uk

2. COMPOSITION/ HAZARDOUS INGREDIENTS

	aliphatic isocyanate	Xi; R43	50-100%
CAS 108-65-6 EINECS:203-603-9	2-methoxy-1-methylethyl acetate	Xi;R10-36	10-25%
CAS 1330-20-7 EINECS:215-535-7	Xylene	Xn;R10-20/21-38	2.5-10%
CAS 100-41-4 EINECS:202-849-4	Ethylbenzene	Xn;F;R11-20	+/- 2.5%
CAS 822-06=0 EINECS:212-485-8	Hexamethylene-di-isocyanate	T; ;R23-36/37/38-42/43	+/- 2.5%

3. HAZARD IDENTIFICATION

Xn Harmful
R10 Flammable
R20 Harmful by inhalation

CAS 1330-20-7 EINECS:215-535-7	Xylene
CAS 100-41-4 EINECS:202-849-4	Ethylbenzene
CAS 822-06=0 EINECS:212-485-8	Hexamethylene-di-isocyanate

4. FIRST AID MEASURES

Symptoms may occur even after a few hours. Medical oibservation for 48 hours after accident

Eye contact : Wash out with copious water. If irritation persists seek medical advice

Skin contact : Wash off with soap and water. Do not use solvents or thinners.

Ingestion : Obtain medical advice.
 Inhalation : Move the exposed person into fresh air. Get prompt medical attention.

5. FIRE FIGHTING MEASURES

Use Carbon dioxide, Dry Powder, Halogenated Hydrocarbons, Foam. Water spray NOT JET. Fire will produce dense black smoke from wet product containing hazardous products of combustion. Decomposition products may be hazardous to health. Use self contained breathing equipment.

6. ACCIDENTAL RELEASE MEASURES

Spillages should be contained using soil or other adsorbent material to prevent contamination of drains and water courses. Waste material from spillages should be disposed of in accordance to local regulations. Spilled material may cause surfaces to become slippery. Clean-up personnel should use respiratory and/or liquid contact protection.

7. HANDLING AND STORAGE

Store securely in the original labelled containers in cool, dry, well ventilated conditions away from heat sparks and open flames.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

108-65-06 2-methoxy-1-methylethyl acetate	OES Short term: value 548mg/m ³ , 100 ppm Long term value 274mg/m ³ ; 50ppm New, IOELV Sk
CAS 1330-20-7 Xylene	OES Short term: value 662 mg/m ³ , 150 ppm Long term value 441mg/m ³ ; 100ppm Sk
CAS 100-41-4 Ethylbenzene	OES Short term: value 552mg/m ³ , 125 ppm Long term value 441mg/m ³ ; 100ppm New, IOELV Sk
CAS 822-06-0 Hexamethylene-di-isocyanate	OES Short term: value 0.07/m ³ , Long term value 0.02mg/m ³ ; Sen; as-NCO

Exposure controls : Respiratory protection is not normally required but if spraying applications are involved appropriate air fed masks should be worn. Ensure sufficient local exhaust ventilation.

Personal protection : Respiratory, wear air fed mask when spraying, to prevent inhalation. Hands, the use of suitable solvent resistant gloves is recommended. Eyes, safety glasses or goggles, (BS2902). Skin. Apron, overalls

9. PHYSICAL AND CHEMICAL PROPERTIES

State : Fluid	Flash point : 30°C Abel cup
Colour : Pigment	Ignition temp: 315.0 °C
Lower explosion limit : 1.1% vol	Solubility : Not water miscible
Upper explosion limit : 10.8% vol	Density @ 20°C: 1.07gms/cc
Vapour density : 6.7hPa	VOC content : 24.5 %
Boiling point: 137 °C	

10. STABILITY AND REACTIVITY

This product is stable in excess of one year when stored between 5°C and 30°C. See sec. 7

11. TOXICOLOGICAL INFORMATION

Acute toxicity
 Harmful

Irritant

Sensitisation possible through inhalation and skin contact

12. ECOLOGICAL INFORMATION

Water hazard Class 2(German regulations) (Self assessment). Hazardous for water

13. DISPOSAL CONSIDERATIONS

Do not release into surface waters. Wastes including empty containers should be disposed of in accordance with the Control of Pollution & Environmental Protection Acts.

Disposal of large quantities as waste must always comply with existing EEC, national and local regulations. Registered waste carriers and licensed disposal sites must be used.

14. TRANSPORT CONSIDERATIONS

IMDG	: Packing grp <=30 lts....111	>30lts....111	Class...3
	Marine pollutant	: No	UN No 1263
	EMS number: F-E,S-E		Label: 3
	Shipping name	: Paint	

ICAO-T1/IATA-DGR:	Packing grp <=30 lts....111	>30lts....111	Class...3
	UN/ID No 1263		Label: 3
	Shipping name	: Paint	

INTERNATIONAL:	Packing grp	111	Class ...3
ROAD / RAIL	Main risk	: Flammable liquid	UN No 1263
	Shipping name	: 1263 Paint	Label: 3

15. REGULATORY INFORMATION

This product is classified and labelled for supply in accordance with the Chemicals (Hazard Information, packaging for supply) Regulations 1994 as follows:

15.1 Classification : Harmful

15.1 Hazard –determining components of labelling: Aliphatic polyisocyanate, hexamethylene-di-isocyanate

15.2 Symbol (s) :

15.3 R-phrases : R - 10, Flammable
R – 10 Highly flammable
R – 20/21 Harmful by inhalation and contact with skin
R-23 Toxic by inhalation
R – 36/37/38 Irritating to eyes, respiratory system and skin
R 42/43 May cause sensitisation by inhalation and skin contact

15.4 S-phrases : R - 20 Harmful by inhalation
S - 9 Keep container closed and in a well ventilated place
S - 23 Do not breathe fumes, vapour, spray
S -24/25 Avoid contact with skin and eyes
S -37 Wear suitable gloves
S -43 In case of fire use water spray or powdered extinguishing agent
S – 60 Material and containers must be disposed of as hazardous waste

Special labelling: Contains isocyanates

P-phrases For use only in commercial and industrial applications

The provisions of the Health & Safety at Work Act and the Control of Substances Hazardous to Health Regs apply to the use of this product at work

16. OTHER INFORMATION

Text of any R phrases in Sec 8: R10 Flammable
R11 Highly Flammable
R20/21 Harmful by inhalation and in contact with skin
R38 Irritating to skin

This Material Safety Data Sheet dated 20/01/1997 follows the requirements of EEC directive 91/155/EEC