



MATERIAL SAFETY DATA SHEET

(UNISEAL # 110 B)

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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name : UNISEAL # 110 B (Clear) Solvent Base
Chemical Description : A blend of polyamide hardener in organic solvents.
Supplier : MAS Paints & Chemicals Industry.
Telephone & Fax No : 00971 - 06 - 5311777, 00971 - 06 - 5311330

2. COMPOSITION / INFORMATION ON INGREDIENTS

Preparation description : Mixture of Epoxy Resin (75% m/m) in xylene
Dangerous Components / constituents:
Component name CAS number Content range EC hazard R Phrases
Xylene 1330-20-7 25% m/m Xn R 10
R 20/21
R 38

3. HAZARD IDENTIFICATION

Human health Hazards : Harmful by inhalation and in contact with skin. Irritating of skin.
Aspiration into lungs may cause chemical pneumonitis which can be fatal.
Safety hazards: : Flammable. In use, may form flammable/ explosive vapour-air mixture.
Electrostatic charge may be generation during handling.
Environmental hazards : The EC has not yet defined criteria for classifying preparations as dangerous for the environment.

4. FIRST AID MEASURES

Symptoms and effect : irritation of the skin, eyes and respiratory tract. Headache, Nausea, Dizziness, Narcosis.
First AID - inhalation : Remove to fresh air, if rapid recovery does not occur, obtain medical attention.
First AID -skin : Remove contaminated clothing. Wash skin with water using soap if available. If Persistent irritation occurs, obtain medical attention.
First AID - Eye : Flush eye with water. If persistent irritation occurs, obtain medical attention.
First AID -Ingestion : Do not induce vomiting. if rapid recovery does not occur, obtain medical attention.
Advice to Physicians : Dermatitis may result from prolonged or repeated exposure. Aspiration into the lungs may cause chemical pneumonitis. Causes central nervous system depression. Severs exposure may causes blurred vision, tremors, shallow and rapid breathing, delirium and unconsciousness.

5. FIRE FIGHTING MEASURES

specific hazards : Carbon monoxide may be evolved if incomplete combustion occurs. The vapour is heavier than air, spreads along the ground and distant ignition is possible.
Extinguishing media -small fires : dry chemical powder, carbon dioxide, foam, sand or earth.
Extinguishing media -large fires : Foam.
Unsuitable extinguishing media : Water in a jet.

Protective equipment : Full protection clothing and self-contained breathing apparatus.
Other information : keep adjacent containers cool by spraying with water.

6. ACCIDENTIAL RELEASE MEASURE

- Personal precaution : Extinguish naked flames remove ignition sources No smoking Avoid sparks Evacuate the area of all non-essential personal take precautionary measures against static discharge Shut off leaks, if possible without personal risk Avoid contact with A skin, B eyes and C clothing do not breathe E vapour. Ventilate contaminated area thoroughly.
- Personal Protection : Wear Nitrite rubber gloves, PVC one-piece suit with integral hood safety boots-rubber, knee length. Wear full face -piece respirator with organic vapour canister NPF 400. in a confined space, wear self-contained breathing apparatus open circuit type NPF 2000.
- Environmental precaution : prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.
- Clean-up methods -small : absorb or contain liquid with sand, earth or spill control material Shovel up Spillage: and place in a labelled, seal able container for subsequent safe disposal Put Leaking containers in a labelled drum or over drum scrub contaminated Surfaces with detergent solution. Retain washings as contaminated waste.
- Clean-up methods -large Spillage: : Transfer to a labelled, seal able container for product recovery or safe disposal. Treat residues as for small spillage.
- Other Information : risk of explosion. Inform the emergency services if liquid enter surface water drains. Vapour may form an explosive mixture with air. See section 13 for information on disposal.

7. HANDLING AND STORAGE

- Handling : Extinguish any naked flames. Remove ignition sources. Avoid sparks. Do not smoke. Take precautionary measures against static. Discharges earth all equipment Avoid contact with skin, eyes and clothing. Do not breathe vapour. Only use in well ventilated areas. Use local exhaust extraction. Do not empty into drains.
- Storage : Keep container tightly closed and in a cool, well-ventilated place. Keep in a banded area. Keep away from direct sunlight and other sources of heat or ignition. Do not smoke in storage areas. Palletised loads should be stacked to a maximum of 4 high.
- Storage temperatures : Ambient.
- Product transfer : take precautionary measures against static discharges. Earth all equipment. Avoid splash filling. Do not use compressed air for filling, discharges for handling. If positive displacement pumps are used, these must be fitted with a non-integral pressure relief valve. Use a vapour recovery system. Refer to supplier for further product transfer instructions if required.
- Recommended materials : Mild steel or stainless steel. A for container paints, use epoxy phenolic.
- Unsuitable materials : Polyethylene, PVC and natural, butyl or neoprene rubber.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering control measures : Use Local exhaust ventilation.

Occupational exposure standards:

Component name	Limit type	Value	Unit	Other information
Xylene	TLV -TWA	100	ppm	ACGIH
		434	mg/m ³	
	STEL	150	ppm	ACGIH
		651	mg/m ³	

- Respiratory protection : Where local exhaust ventilation is not practicable, wear half mask respirator with organic by vapour cartridge NPF 20. if product is applied by spraying, wear self-contained breathing apparatus.

Protection for hands : Nitrile rubber gloves gauntlet type.
 Eye Protection : Monogoggles.
 Protection for body : Standard issue work clothes. Safety shoes or boots – chemical resistant.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid
 Colour : Clear
 Odour : Aromatic
 Initial Boiling point : 137 °C (base on xylene)
 Melting point : < 25 °C
 Autoignition : > 250 °C
 Vapour pressure : 1 kPa @ 20 °C (base on xylene)
 Density : 0.900 Kg / m³ @ 20 °C
 Vapour density : 3.7 (base on xylene)
 Electrical conductivity : 143 ps/m³ @ 22 °C
 Flash Point : 25 °C (Abel closed cup)
 Explosion Limit –upper : 7% (v/v) (base on xylene)
 Explosion Limit –lower : 1% (v/v) (base on xylene)
 n-octanol / water partition coefficient : Data not available

10. STABILITY AND REACTIVITY

stability : stable under normal conditions. Reacts with strong oxidising agents polymerises exothermically with amines, mercaptans and Lewis acids at eminent and above. Polymerises in contact with caustic soda.
 Conditions to avoid : heat, flames and sparks. Caustic soda can induce a vigorous polymerisation at temperatures around 200 °C
 Materials to avoid : strong oxidising agents. Caustic soda.
 Hazardous decomposition : Hazardous decomposition products are not expected to form during normal Product: storage.

11. TOXICOLOGICAL INFORMATION

Basis for assessment : information give is bases on data on the components and the toxicology of similar products.
 Acute toxicity –oral : LD 50 > 2000mg/kg
 Acute toxicity –dermal : LD 50 > 2000mg/kg
 Eye irritation : Slight irritation
 Skin irritation : irritation
 Respiratory irritation : slight irritation
 Skin sensitisation : Not a skin sensitiser
 (Sub) Chronic toxicity : Repeated exposure causes liver damage
 Repeated exposure causes kidney damage
 Repeated exposure effects the nervous system(base on xylene)
 Human effect : Repeated contact can causes defatting of the skin
 See section 4 for information regarding acute effect humans.

12. ECOLOGICAL INFORMATION

Basis for assessment : Information give is based on data on the components and the ecotoxicology of Similar products.
 Mobility : skins in water. Partly evaporates form water or soil surfaces, but a significant production will remain after one day. If the product enters soil, one or more constituents will be mobile and may contaminate groundwater.
 Persistence / degradability : the solvent is ready biodegradable, but the product contains that are persistent in the environment.
 Bioaccumulation : Contains components with the potential to bioaccumulate. May causes tainting of fish and shellfish.
 Sewage treatment : practically non-toxic, EC₅₀ > 100 mg/l, to organisms in sewage treatment plants.

13. DISPOSAL CONSIDERATIONS

Precautions	: See section 8. Refer to section 7 before handling the product or containers.
Waste disposal	: Recover or recycle if possible. Otherwise incineration or dispose to licensed disposal contactor.
Product disposal	: Recover or recycle if possible. Otherwise incineration or dispose to licensed disposal contactor.
Container disposal	: Drain container thoroughly. Rinse three times with C suitable solvent. Treat resins as for product disposal after draining vent in a safe place away from sparks and fire send to drums recovery or metal reclaimer. Residues may causes an explosion hazard. Do not puncture, cut or weld uncleaned drums.
Local Legislation	: Keep container labelled unit cleaned and then remove or deface labels.

14. TRANSPORT INFORMATION

UN Number	: 1866
UN Class / Packing Group	: 3 / III
UN Proper Shipping Name	: Epoxy Paints, Clear
UN Number (sea transport, IMO)	: 1866
IMO Class / Packing Group)	: 3.3 / III
IMO Symbol	: Flammable Liquid
IMO Marine Pollutant	: No
IMO Proper Shipping Name	: Epoxy Paints, Clear
ADR/RID Class /Item	: 3/31 (C)
UN number (Road Transport)	: UN 1866
ADR/RID Symbol	: Flammable Liquid
ADR/RID kemler	: 30/1866
ADR/RID Proper Shipping name	: Epoxy Paints, Clear
ADNR Class /Item	
UN number (air Transport, ICAO)	:1866
IATA /ICAO Class/Packing Group	:3/ III
IATA/ICAO Symbol	: Flammable Liquid
IATA/ICAO Proper Shipping name	: Epoxy Paints, Clear
Local Regulation	
Other Information	

15. REGULATORY INFORMATION

Label information

EC label name	: Contain Xylene
EC Classification	: Harmful
EC Symbols	: Xn
EC Risk phrases	: R 10 Flammable : R 20 /21 Harmful by inhalation and in contact with skin. : R 38 Irritating to skin.

EC Safety phrases : S 25. Avoid contact with eyes.
 : S 36/37 Wear Suitable protective clothing and gloves.

EINECS (EC) : All Components listed or polymer exempt

MITI (Japan) : All Components listed

TSCA (USA) : All Components listed

AICA (Australia) : All Components listed

DSL (Canada) : All Components listed

National Legislation :

16. OTHER INFORMATION

Uses and restrictions : Use with various curing agents in solvent borne two-component coating systems

Technical Contact Point :

Technical Contact Number :

SDS history :

Core SDS history : Edition No.: 02

Revisions Highlighted : First Issue: 01-July -93.
 : Revised: 01-January -95.
 : Changes to EC supply classification and labelling requirements.
 : Changes to transport classification and labelling requirements.
 : Changes to sections 7,8,10,14,15,16.

SDS distribution : the information in this document should be made available to all who may handle the product.

Other information : Epoxy Paint Clear

This information only concerns the above-mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

This MSDS cancels and replaces any preceding release.

Editor : **MAS Paints & Chemicals Industry.**