MATERIAL SAFETY DATA SHEET – PAGE 1 OF 4

EPILOX HS BASE

This product is classified as hazardous according to criteria of NOHSC

Section 1 – Identification of the Material and Supplier

PRODUCT (MATERIAL) NAME:	**EPILOX HS BASE**		
OTHER NAMES:			
RECOMMENDED USES:	Base component of epoxy floor coating system.		
SUPPLIER NAME/ADDRESS:	ITLS-TWA Australia Pty Ltd – 250 Princes Hwy Dandenong Vic 3175		
TELEPHONE NUMBER:	(03) 9791 8211	FACSIMILE NUMBER:	(03) 9791 8644
EMERGENCY PHONE NUMBER:	(03) 9791 8211	HOURS:	0800-1700 Mon-Fri

Section 2 – Hazards Identification

HAZARD CLASSIFICATION: **Classified as a HAZARDOUS SUBSTANCE according to criteria of NOHSC.**
Classified as DANGEROUS GOODS according to criteria of Australia Dangerous Goods Code

RISK PHRASES:
R36/38: Irritating to eyes and skin.
R43: May cause sensitisation by skin contact.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES:
S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre 13 11 26 (Australia-wide).
S28: After contact with skin, wash immediately with water (and soap if available).
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S61: Avoid release to the environment.

Section 3 – Composition/Information on Ingredients

INGREDIENTS:

Chemical Name:	**Proportion:**	**CAS Number:**
Bisphenol A epoxy resin	>60%	[25068-38-6]
Reactive diluent as Alkyl C12 to C14 glycidyl	10 – 30%	[68609-97-2]
Inert Fillers	10 – 30%	[14807-96-6]
Crystalline Silica	1 – 10%	[14808-60-7]

Balance of formulation consists of ingredients below cut-off rates or ingredients determined not to be hazardous.

Section 4 – First Aid Measures

INHALATION: If inhaled, remove patient to fresh air – avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep at rest until recovered. Seek medical attention if further symptoms develop. If breathing has ceased, ensure clear airway and apply artificial respiration.

INGESTION: If swallowed, DO NOT induce vomiting. Rinse mouth with plenty of water. Immediately contact the Poisons Information Centre (Phone Australia-wide 13 11 26) or a doctor.

SKIN: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Remove contaminated clothing and wash before reuse. Wash off skin with soap and water. Seek medical assistance if irritation persists.

EYES: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre, or a doctor, or for at least 15 minutes. Removal of contact lenses after injury should only be undertaken by skilled personnel. Seek immediate medical advice.

FIRST AID FACILITIES: Eye wash and normal washroom facilities.

ADVICE TO DOCTOR: Treat symptomatically.

POISON INFORMATION CENTRE – 13 11 26 Australia-wide.

The product is corrosive.

MATERIAL SAFETY DATA SHEET – PAGE 2 OF 4

Section 5 – Fire Fighting Measures

EXTINGUISHING MEDIA: Water mist, CO_2, foam, dry powder.

HAZARDS FROM COMBUSTION PRODUCTS:

On burning may emit toxic fumes, including carbon and nitrogen oxides.

SPECIAL PROTECTIVE PRECAUTIONS AND EQUPMENT FOR FIRE FIGHTERS:

Heating can cause expansion or decomposition leading to violent rupture of containers. Keep containers cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion. Avoid bodily contact with substance or run-off.

Section 6 – Accidental Release Measures

EMERGENCY PROCEDURES: Product is slippery when spilt – avoid accidents by cleaning up immediately. Wear gloves, protective goggles and appropriate protective equipment to avoid eye and skin contact. Isolate and contain spill and soak up with inert material such as clay or sand. Prevent material from entering storm water drains, waterways, basements or work-pits. Collect in suitable containers and ensure they are correctly labelled. Ensure area is thoroughly ventilated before recommencing work.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

Contain and collect any spills as detailed above. For disposal, refer to State Land Waste Management Authority.

Section 7 – Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Wear protective goggles/face shield and rubber gloves and barrier cream to prevent eye and skin contamination. Contact lenses pose a special hazard as they may absorb irritants. Suitable protective clothing, PVC gloves and boots should be worn. Use in a well ventilated area, preferably outdoors. General exhaust is normally adequate. If risk of overexposure exists, wear SAA approved dust respirator.

CONDITIONS FOR SAFE STORAGE:

Keep containers tightly sealed when not in use. Store in a cool, dry, well-ventilated place and out of direct sunlight. Keep away from strong acids, bases and oxidising agents.

INCOMPATIBILITIES: No restrictions.

Section 8 – Exposure Controls / Personal Protection

NATIONAL EXPOSURE STANDARDS:

No exposure standards have been established for this material by NOHSC. Refer to limits for individual constituents listed below:

Bisphenol A epoxy resin – none assigned for material, but contains
Epichlorohydrin: TLV TWA: 0.1ppm, 0.38 mg/m^3 – skin
ES TWA: 0.1ppm, 0.4 mg/m^3 – skin

BIOLOGICAL LIMIT VALUES: Not established for the product.

ENGINEERING CONTROLS: If used in limited ventilation, ensure adequate ventilation to maintain exposure levels are kept below standards, by using a local exhaust. Keep containers closed when not in use.

PERSONAL PROTECTION: Avoid unnecessary contact as good work practice. Wash contaminated clothing and protective equipment before storing and reuse. Wash hands before eating, smoking or using the toilet.

RESPIRATORY PROTECTION: The use of a respirator or other device is recommended where engineering controls are not effective in controlling airborne exposure. For assistance in selecting suitable equipment consult AS/NZ1715.

EYE PROTECTION: Eye protective measures should be worn when using this product. Consult AS1336 and AS/NZ1337.

PROTECTIVE GLOVES: Rubber, PVC or other protective gloves should be worn. Consult AS2161 for advice.

CLOTHING: Clean overalls should be worn, preferably with an apron. Consult AS2919 for clothing guidance.

SAFETY FOOTWEAR: Wearing safety boots is advisory. Consult AS/NZ2210 for advice on Occupational Protective Footwear.

MATERIAL SAFETY DATA SHEET – PAGE 3 OF 4

Section 9 – Physical and Chemical Properties

APPEARANCE (COLOUR, PHYSICAL FORM, SHAPE):
Transparent liquid

ODOUR:	Nil
VAPOUR PRESSURE:	Negligible
MELTING POINT:	Not applicable
BOILING POINT:	Not available
SOLUBILITY:	Insoluble
SPECIFIC GRAVITY:	1.0 – 1.1
FLASH POINT:	>93°C
UPPER FLAMMABLE LIMIT:	Not established
LOWER FLAMMABLE LIMIT:	Not established

VOLATILE ORGANIC COMPOUNDS (VOC) CONTENT:
Nil.

Section 10 – Stability and Reactivity

CHEMICAL STABILITY:	Stable.
CONDITIONS TO AVOID:	Keep away from strong acids, bases and oxidising agents.
INCOMPATIBLE MATERIALS:	No restrictions

HAZARDOUS DECOMPOSITION PRODUCTS:
On burning may emit toxic fumes, including carbon and nitrogen oxides.

HAZARDOUS REACTIONS:	None

Section 11 – Toxicological Information

TOXICOLOGY INFORMATION: No toxicity data is available for this product.

HEALTH EFFECTS FROM THE LIKELY ROUTES OF EXPOSURE:

INHALATION:	Not normally a hazard at normal temperatures, however at elevated temperatures vapour may be irritating to respiratory system. Inhalation of vapour may result in nausea and headache.
INGESTION:	Swallowing may result in nausea, vomiting, abdominal pain and diarrhoea.
SKIN:	Is irritating and may cause drying of the skin. May lead to dermatitis and in some cases, sensitisation. The material may accentuate pre-existing skin conditions.
EYES:	Irritating and abrasive to the eyes and is capable of causing temporary impairment of vision, eye inflammation and ulceration.
CHRONIC EFFECTS:	May cause sensitisation in susceptible individuals by skin contact. Repeated or prolonged skin contact may result in allergic contact dermatitis.

Section 12 – Ecological Information

ECOTOXICITY:	Not available

PERSISTENCE AND DEGRADABILITY:
Not available

MOBILITY:	Not available
ENVIRONMENTAL PROTECTION:	Product is toxic to aquatic organisms, and may cause long-term adverse effects in the aquatic environment. Avoid contaminating waterways.

Section 13 – Disposal Considerations

DISPOSAL METHODS AND CONTAINERS:
Refer to State Land Waste Management Authority. Empty containers must be decontaminated.

MATERIAL SAFETY DATA SHEET – PAGE 4 OF 4

Section 14 – Transport Information

This material is a Class 9 – Miscellaneous Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 9 Goods are incompatible in a placard load with dangerous goods of Class 1, Explosives.

UN NUMBER: None assigned
UN PROPER SHIPPING NAME: None assigned
CLASS AND SUBSIDIARY RISK: None assigned
PACKING GROUP: None assigned
HAZCHEM CODE: None assigned
SPECIAL PRECAUTIONS PER USER:
Keep containers tightly sealed when not in use. Store in a cool, dry, well-ventilated place and out of direct sunlight. Keep away from strong acids, bases and oxidising agents.

Section 15 – Regulatory Information

POISON SCHEDULE: S5
OHS: Unregulated
ENVIRONMENTAL: Unregulated
ADDITIONAL NATIONAL AND/OR INTERNATIONAL REGULATORY INFORMATION:
Unregulated

Section 16 – Other Information

DATE OF PREPARATION OR LAST REVISION OF MSDS:
21/08/2011
CONTACT POINT: ITLS-TWA Australia Pty Ltd
(03) 9791 8211
LITERATURE REFERENCES / SOURCES OF DATA:
Material Safety Data Sheets from Suppliers
List of Designated Substances – Worksafe Australia (on-line)
Australian Dangerous Goods Code 6th Edition
Standard for the Uniform Scheduling of Drugs and Poisons No 19

The information presented herein has been compiled from sources considered to be dependable and is accurate to the best of seller's knowledge, however seller makes no warranty whatsoever, expressed, implied, or of merchantability regarding the accuracy of such data or the results to be obtained from the use thereof. Seller assumes no responsibility for injury to buyer or third persons or for any damage to property. Buyer assumes all risks.

MATERIAL SAFETY DATA SHEET – PAGE 1 OF 4

EPILOX HS HARDENER

This product is classified as hazardous according to criteri a of NOHSC

Section 1 – Identification of the Material and Supplier

PRODUCT (MATERIAL) NAME:	**EPILOX HS HARDENER**		
OTHER NAMES:			
RECOMMENDED USES:	Hardener component of epoxy floor coating system.		
SUPPLIER NAME/ADDRESS:	ITLS-TWA Australia Pty Ltd – 250 Princes Hwy Dandenong Vic 3175		
TELEPHONE NUMBER:	(03) 9791 8211	FACSIMILE NUMBER:	(03) 9791 8644
EMERGENCY PHONE NUMBER:	(03) 9791 8211	HOURS:	0800-1700 Mon-Fri

Section 2 – Hazards Identification

HAZARD CLASSIFICATION: **Classified as a HAZARDOUS SUBSTANCE according to criteria of NOHSC.**
Classified as DANGEROUS GOODS according to criteria of Australia Dangerous Goods Code

RISK PHRASES:
R20/21/22: Harmful by inhalation, in contact with the skin and if swallowed.
R34: Causes burns.
R42/43: May cause sensitisation by inhalation or skin contact.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES:
S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre 13 11 26 (Australia-wide).
S28: After contact with skin, wash immediately with water (and soap if available).
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S61: Avoid release to the environment.

Section 3 – Composition/Information on Ingredients

INGREDIENTS:

Chemical Name:	**Proportion:**	**CAS Number:**
Isophoronediamine	10 – 30%	[2855-13-2]
Benzyl alcohol	30 – 60%	[100-51-6]
N-aminoethylpiperazine	1 – 10%	[140-31-8]
Triethylenetetramine	10 – 30%	[112-24-3]

Balance of formulation consists of ingredients below cut-off rates or ingredients determined not to be hazardous.

Section 4 – First Aid Measures

INHALATION: If inhaled, remove patient to fresh air – avoid becoming a casualty. Allow patient to assume most comfortable position and keep at rest until recovered. Seek medical attention if further symptoms develop. If breathing has ceased, ensure clear airway and apply artificial respiration.

INGESTION: If swallowed, DO NOT induce vomiting. Rinse mouth with plenty of water. Immediately contact the Poisons Information Centre (Phone Australia-wide 13 11 26) or a doctor.

SKIN: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Remove contaminated clothing and wash before reuse. Wash off skin with soap and water. Seek medical assistance if irritation persists.

EYES: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre, or a doctor, or for at least 15 minutes. Removal of contact lenses after injury should only be undertaken by skilled personnel. Seek immediate medical advice.

FIRST AID FACILITIES: Eye wash and normal washroom facilities.

ADVICE TO DOCTOR: Treat symptomatically.

POISON INFORMATION CENTRE – 13 11 26 Australia-wide.

The product is corrosive.

MATERIAL SAFETY DATA SHEET – PAGE 2 OF 4

Section 5 – Fire Fighting Measures

EXTINGUISHING MEDIA: Water mist, CO_2, foam, dry powder.

HAZARDS FROM COMBUSTION PRODUCTS:

On burning may emit toxic fumes, including carbon monoxide, amines, ammonia and nitrogen oxides.

SPECIAL PROTECTIVE PRECAUTIONS AND EQUPMENT FOR FIRE FIGHTERS:

Heating can cause expansion or decomposition leading to violent rupture of containers. Keep containers cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to vapour or products of combustion. Avoid bodily contact with substance or run-off.

SPECIFIC HAZARDS: Liquid and vapour are flammable. Vapour forms an explosive mixture with air.

Section 6 – Accidental Release Measures

EMERGENCY PROCEDURES: Product is slippery when spilt – avoid accidents by cleaning up immediately. Remove all ignition sources. Wear gloves, protective goggles and protective equipment to avoid eye and skin contact. Isolate and contain spill and soak up with inert material such as clay or sand. Prevent material from entering storm water drains, waterways, basements or workpits. Collect in suitable containers and ensure they are correctly labelled. Ensure area is thorougly ventilated before recommencing work.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP

For disposal, refer to State Land Waste Management Authority.

Section 7 – Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Wear protective goggles/face shield and rubber gloves and barrier cream to prevent eye and skin contamination. Contact lenses pose a special hazard as they may absorb irritants. Suitable protective clothing, PVC gloves and boots should be worn. Use in a well ventilated area, preferably outdoors. General exhaust is normally adequate. If risk of overexposure exists, wear SAA approved dust respirator.

CONDITIONS FOR SAFE STORAGE:

Store in accordance with AS 3780-1994: The storage and handling of corrosive substances; and AS1940: The storage and handling of flammable and combustible liquids.

STORAGE: Store in a cool, dry, well ventilated area out of direct sunlight. Store away from strong acids and oxidising agents.

INCOMPATIBILITIES: No restrictions.

Section 8 – Exposure Controls / Personal Protection

NATIONAL EXPOSURE STANDARDS:

No exposure standards have been established for this material by NOHSC. No exposure limits have been established for individual constituents.

BIOLOGICAL LIMIT VALUES: Not established for the product.

ENGINEERING CONTROLS: If used in limited ventilation, ensure adequate ventilation to maintain exposure levels are kept below standards, by using a local exhaust. Keep containers closed when not in use.

PERSONAL PROTECTION: Avoid unnecessary contact as good work practice. Wash contaminated clothing and protective equipment before storing and reuse. Wash hands before eating, smoking or using the toilet.

RESPIRATORY PROTECTION: The use of a respirator or other device is recommended where engineering controls are not effective in controlling airborne exposure. For assistance in selecting suitable equipment consult AS/NZ1715.

EYE PROTECTION: Eye protective measures should be worn when using this product. Consult AS1336 and AS/NZ1337.

PROTECTIVE GLOVES: Rubber, PVC or other protective gloves should be worn. Consult AS2161 for advice.

CLOTHING: Clean overalls should be worn, preferably with an apron. Consult AS2919 for clothing guidance.

SAFETY FOOTWEAR: Wearing safety boots is advisory. Consult AS/NZ2210 for advice on Occupational Protective Footwear.

MATERIAL SAFETY DATA SHEET – PAGE 3 OF 4

Section 9 – Physical and Chemical Properties

APPEARANCE (COLOUR, PHYSICAL FORM, SHAPE):
Amber thin liquid

ODOUR: Strong amine odour
VAPOUR PRESSURE: Negligible
MELTING POINT: Not applicable
BOILING POINT: Not available
SOLUBILITY: Insoluble
SPECIFIC GRAVITY: 1.0 – 1.1
FLASH POINT: >62°C
UPPER FLAMMABLE LIMIT: Not established
LOWER FLAMMABLE LIMIT: Not established

VOLATILE ORGANIC COMPOUNDS (VOC) CONTENT:
Not stated.

Section 10 – Stability and Reactivity

CHEMICAL STABILITY: Stable under normal conditions.
CONDITIONS TO AVOID: Keep away from strong acids and oxidising agents.
INCOMPATIBLE MATERIALS: No restrictions

HAZARDOUS DECOMPOSITION PRODUCTS:
On burning may emit toxic fumes, including carbon monoxide, amines, ammonia and nitrogen oxides.

HAZARDOUS REACTIONS: None

Section 11 – Toxicological Information

TOXICOLOGY INFORMATION: No toxicity data is available for this product.

HEALTH EFFECTS FROM THE LIKELY ROUTES OF EXPOSURE:

INHALATION: Vapour or mist is irritating to the upper respiratory tract and may cause sensitisation. Inhalation of vapour may aggravate pre-existing conditions such as asthma, bronchitis or emphysema. Acute effects may be chest and nasal irritation with coughing, sneezing, headache and nausea. Hazard increases at elevated temperatures.

INGESTION: Harmful and highly irritating if swallowed. Swallowing may result in nausea, vomiting, abdominal pain and diarrhoea. May cause chemical burns to the mouth, throat and oesophagus, with extreme discomfort and pain. Considered an unlikely route of entry in commercial/industrial environments.

SKIN: Prolonged exposure is highly irritating and may cause drying and cracking of the skin. Material is corrosive and can cause chemical burns. Capable of causing dermatitis and sensitisation resulting in hives, rash, itching or swelling of extremities. Toxic effects may result from skin absorption. Sensitisation may appear after repeated symptom-free exposures. Open cuts, abraded or irritated skin should not be exposed to this material. This material may accentuate any pre-existing skin conditions.

EYES: Highly irritating to the eyes and is capable of causing pain and corneal burns. If not promptly treated, can lead to permanent injury.

Section 12 – Ecological Information

ECOTOXICITY: Not available

PERSISTENCE AND DEGRADABILITY:
Not available

MOBILITY: Not available

ENVIRONMENTAL PROTECTION: Product is toxic to aquatic organisms, and may cause long-term adverse effects in the aquatic environment. Avoid contaminating waterways.

Section 13 – Disposal Considerations

DISPOSAL METHODS AND CONTAINERS:
Refer to State Land Waste Management Authority. Empty containers must be decontaminated.

MATERIAL SAFETY DATA SHEET – PAGE 4 OF 4

Section 14 – Transport Information

This material is a Class 8 – Corrosive Substance according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 8 Goods are incompatible in a placard load with any of the following:

- Class 1, Explosives
- Class 4.3, Dangerous When Wet substances
- Class 5.1, Oxidising Agents & Class 5.2, Organic Peroxides
- Class 6, Toxic Substances (where the Toxic substances are cyanides and the corrosives are acids)
- Class 7, Radioactive Substances
- and are incompatible with food and food packaging in any quantity.

UN NUMBER: 1760
UN PROPER SHIPPING NAME: Corrosive Liquids N.O.S.
CLASS AND SUBSIDIARY RISK: 8
PACKING GROUP: III
HAZCHEM CODE: 3X

SPECIAL PRECAUTIONS PER USER:

Keep containers tightly sealed when not in use. Store in a cool, dry, well-ventilated place and out of direct sunlight. Keep away from strong acids and oxidising agents.

Section 15 – Regulatory Information

POISON SCHEDULE: S5
OHS: Unregulated
ENVIRONMENTAL: Unregulated
ADDITIONAL NATIONAL AND/OR INTERNATIONAL REGULATORY INFORMATION:
Unregulated

Section 16 – Other Information

DATE OF PREPARATION OR LAST REVISION OF MSDS:
21/08/2011
CONTACT POINT: ITLS-TWA Australia Pty Ltd
(03) 9791 8211
LITERATURE REFERENCES / SOURCES OF DATA:
Material Safety Data Sheets from Suppliers
List of Designated Substances – Worksafe Australia (on-line)
Australian Dangerous Goods Code 6th Edition
Standard for the Uniform Scheduling of Drugs and Poisons No 19

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