



## SAFETY DATA SHEET ALUMINIUM LIQUID (F2) RESIN

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME ALUMINIUM LIQUID (F2) RESIN  
 PRODUCT NO. X0011  
 SUPPLIER ITW DEVCON  
 BAY 150  
 SHANNON INDUSTRIAL ESTATE  
 SHANNON  
 CO CLARE  
 IRELAND  
 T: +353 (0)61471299  
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### 2 HAZARDS IDENTIFICATION

May cause sensitisation by skin contact. Irritating to eyes and skin. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CLASSIFICATION Xi;R36/38. R43. N;R51/53.

#### HUMAN HEALTH

Preparation contains an epoxy resin, which may cause sensitisation and development of allergy.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
EPOXY RESIN (Number average MW <= 700 )	500-033-5	25068-38-6	30-60%	R43 Xi;R36/38 N;R51/53
OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS		68609-97-2	1-10%	R43 Xi;R38
SILICA SAND	238-878-4	14808-60-7	< 1%	-

The Full Text for all R-Phrases are Displayed in Section 16

### 4 FIRST-AID MEASURES

#### GENERAL INFORMATION

Avoid contact with skin and eyes. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

#### INHALATION

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Contact physician if discomfort continues.

#### INGESTION

Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention.

#### SKIN CONTACT

Remove affected person from source of contamination. Wash skin thoroughly with soap and water for several minutes. Contact physician if irritation persists.

#### EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention. Contact physician if irritation persists.

### 5 FIRE-FIGHTING MEASURES

## ALUMINIUM LIQUID (F2) RESIN

### EXTINGUISHING MEDIA

Extinguish with foam, carbon dioxide or dry powder.

### SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapours. Keep up-wind to avoid fumes. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control.

### SPECIFIC HAZARDS

By heating and fire, irritating vapours/gases may be formed.

### PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Provide adequate ventilation. Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet.

### ENVIRONMENTAL PRECAUTIONS

Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

### SPILL CLEAN UP METHODS

Absorb spillage with non-combustible, absorbent material. Transfer to a container for disposal. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

## 7 HANDLING AND STORAGE

### USAGE PRECAUTIONS

Provide good ventilation. Use only in well-ventilated areas. Keep away from heat, sparks and open flame. Open drum carefully as content may be under pressure. Do not eat, drink or smoke when using the product. Observe good industrial hygiene practices.

### STORAGE PRECAUTIONS

Store in tightly closed original container in a dry, cool and well-ventilated place.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	TWA - 8 hrs		STEL - 15 min		Notes
SILICA SAND	WEL		0.3 mg/m3 Resp Dust, HK			

WEL = Workplace Exposure Limit.

### PROTECTIVE EQUIPMENT



### PROCESS CONDITIONS

Provide eyewash, quick drench.

### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

### RESPIRATORY EQUIPMENT

If ventilation is insufficient, suitable respiratory protection must be provided.

### HAND PROTECTION

Use protective gloves made of: Rubber or plastic.

### EYE PROTECTION

Wear approved chemical safety goggles where eye exposure is reasonably probable.

**ALUMINIUM LIQUID (F2) RESIN****HYGIENE MEASURES**

Keep away from food, drink and animal feeding stuffs. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product. Change work clothing daily before leaving work place.

**SKIN PROTECTION**

Wear apron or protective clothing in case of contact.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Viscous liquid		
COLOUR	Light (or pale) Grey		
ODOUR	Slight odour		
SOLUBILITY	Slightly soluble in water.		
BOILING POINT (°C)	>204.4	MELTING POINT (°C)	n/d
RELATIVE DENSITY	1.92 20 °C	VAPOUR DENSITY (air=1)	>1
EVAPORATION RATE	<<1 ( butyl acetate =1)	pH-VALUE, CONC. SOLUTION	7.0 @ 20 °C
FLASH POINT (°C)	> 93.3		

**10 STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperature conditions and recommended use.

**CONDITIONS TO AVOID**

Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

**MATERIALS TO AVOID**

Avoid contact with: Strong oxidising agents. Strong acids. Amines.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Vapours/gases/fumes of: Acids - organic. Aldehydes.

**11 TOXICOLOGICAL INFORMATION**

TOXIC DOSE 1 - LD 50 >10, 000 mg/kg (oral rat)

**SKIN CONTACT**

Irritating to skin. May cause sensitisation by skin contact. Risk of sensitisation or allergic reactions among sensitive individuals. Prolonged contact may cause redness, irritation and dry skin.

**EYE CONTACT**

Irritating to eyes.

**HEALTH WARNINGS**

Preparation contains an epoxy resin, which may cause sensitisation and development of allergy.

**ROUTE OF ENTRY**

Inhalation. Ingestion.

Name	EPOXY RESIN (Number average MW <= 700 )
Toxic Dose 1 - LD 50	>2000 mg/kg (oral rat)
Toxic Dose 2 - LD 50	>2000 mg/kg (oral rat)

**12 ECOLOGICAL INFORMATION****ECOTOXICITY**

Avoid releasing to the environment. The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

**MOBILITY**

Do not discharge into drains, water courses or onto the ground.

## ALUMINIUM LIQUID (F2) RESIN

WATER HAZARD CLASSIFICATION

WGK 2

### 13 DISPOSAL CONSIDERATIONS

**DISPOSAL METHODS**

Dispose of waste and residues in accordance with local authority requirements.

**WASTE CLASS**

08 04 99

### 14 TRANSPORT INFORMATION



UK ROAD CLASS	9		
PROPER SHIPPING NAME	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN (Number average MW <= 700 ))		
UN NO. ROAD	3082	UK ROAD PACK GR.	III
ADR CLASS NO.	9	ADR CLASS	Class 9: Miscellaneous dangerous substances and articles.
ADR PACK GROUP	III	HAZARD No. (ADR)	90
ADR LABEL NO.	9	HAZCHEM CODE	2X
CEFIC TEC(R) NO.	90GM6-III	RID CLASS NO.	9
RID PACK GROUP	III	UN NO. SEA	3082
IMDG CLASS	9	IMDG PAGE NO.	9
IMDG PACK GR.	III	EMS	F-A, S-F
MFAG	See Guide	MARINE POLLUTANT	No.
UN NO. AIR	3082	AIR CLASS	9
AIR PACK GR.	III		

### 15 REGULATORY INFORMATION

**LABELLING**



Irritant



Dangerous for the environment

**CONTAINS**

EPOXY RESIN (Number average MW <= 700 )  
OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS

**RISK PHRASES**

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

**SAFETY PHRASES**

S28	After contact with skin, wash immediately with plenty of water.
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## ALUMINIUM LIQUID (F2) RESIN

S37/39                      Wear suitable gloves and eye/face protection.  
P5                              Contains epoxy constituents. See information supplied by the manufacturer.

### 16 OTHER INFORMATION

REVISION DATE                      02/10/2008

REV. NO./REPL. SDS GENERATED    10

DATE                                      17.01.2005

#### RISK PHRASES IN FULL

NC                                      Not classified.  
R36/38                                  Irritating to eyes and skin.  
R38                                      Irritating to skin.  
R43                                      May cause sensitisation by skin contact.  
R51/53                                  Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



## SAFETY DATA SHEET LIQUID HARDENER.

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME                    LIQUID HARDENER.  
 PRODUCT NO.                    X0014  
 SUPPLIER                        ITW DEVCON  
                                       BAY 150  
                                       SHANNON INDUSTRIAL ESTATE  
                                       SHANNON  
                                       CO CLARE  
                                       IRELAND  
                                       T: +353 (0)61471299  
                                       F: 353(0)61471285  
 EMERGENCY TELEPHONE        +44 (0)208 762 8322

### 2 HAZARDS IDENTIFICATION

Harmful in contact with skin. Causes burns. May cause sensitisation by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CLASSIFICATION                    Xn;R21. C;R34. R43. N;R51/53.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
2-PIPERAZIN-1-YLETHYLAMINE	205-411-0	140-31-8	1-10%	C;R34 Xn;R21/22 R43 R52/53
NONYL PHENOL	246-672-0	25154-52-3	1-10%	Xn;R22. C;R34. N;R50/53.
TRIETHYLENETETRAMINE	203-950-6	112-24-3	30-60%	C;R34 Xn;R21 R43 R52/53

The Full Text for all R-Phrases are Displayed in Section 16

### 4 FIRST-AID MEASURES

#### GENERAL INFORMATION

In case of accident or if you feel unwell, seek medical advice immediately (show label where possible). Do not breathe vapour/spray. Avoid contact with eyes.

#### INHALATION

Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Contact physician if discomfort continues.

#### INGESTION

Do not induce vomiting. Drink plenty of water. Get medical attention.

#### SKIN CONTACT

Remove affected person from source of contamination. Wash skin thoroughly with soap and water for several minutes. Contact physician if irritation persists.

#### EYE CONTACT

Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention. Contact physician if irritation persists.

### 5 FIRE-FIGHTING MEASURES

#### EXTINGUISHING MEDIA

Fire can be extinguished using: Water. Foam, carbon dioxide or dry powder.

## LIQUID HARDENER.

### SPECIAL FIRE FIGHTING PROCEDURES

Keep up-wind to avoid fumes. Avoid water in straight hose stream; will scatter and spread fire. Keep run-off water out of sewers and water sources. Dike for water control.

### SPECIFIC HAZARDS

Avoid breathing fire vapours.

### PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Avoid contact with skin and eyes. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation.

### ENVIRONMENTAL PRECAUTIONS

Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

### SPILL CLEAN UP METHODS

Absorb spillage with non-combustible, absorbent material. Transfer to a container for disposal. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

## 7 HANDLING AND STORAGE

### USAGE PRECAUTIONS

Provide good ventilation. Use only in well-ventilated areas. Avoid contact with skin and eyes. Avoid eating, drinking and smoking when using the product. Do not use in confined spaces without adequate ventilation and/or respirator. Do not eat, drink or smoke when using the product.

### STORAGE PRECAUTIONS

Store in tightly closed original container in a dry, cool and well-ventilated place.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### PROTECTIVE EQUIPMENT



### PROCESS CONDITIONS

Provide eyewash, quick drench.

### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

### RESPIRATORY EQUIPMENT

If ventilation is insufficient, suitable respiratory protection must be provided.

### HAND PROTECTION

Use protective gloves made of: Rubber or plastic.

### EYE PROTECTION

Wear approved chemical safety goggles where eye exposure is reasonably probable.

### HYGIENE MEASURES

Keep away from food, drink and animal feeding stuffs. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Do not eat, drink or smoke when using the product. Change work clothing daily before leaving work place.

### SKIN PROTECTION

Avoid contact with skin. Wear apron or protective clothing in case of contact.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

**LIQUID HARDENER.**

APPEARANCE	Liquid		
COLOUR	Amber		
ODOUR	Amine.		
SOLUBILITY	Soluble in water		
BOILING POINT (°C)	232	MELTING POINT (°C)	n/a
RELATIVE DENSITY	0.98 20 °C	VAPOUR DENSITY (air=1)	>1
VAPOUR PRESSURE	<10mmHg 21.1	EVAPORATION RATE	<<1 (butyl acetate =1)
pH-VALUE, CONC. SOLUTION	10.5 @ 20 °C	FLASH POINT (°C)	>93

**10 STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperature conditions and recommended use.

**CONDITIONS TO AVOID**

Avoid heat, flames and other sources of ignition. Avoid excessive heat for prolonged periods of time. Avoid exposure to high temperatures or direct sunlight.

**MATERIALS TO AVOID**

Avoid contact with oxidising agents. Avoid contact with acids.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Fire or high temperatures create: Nitrous gases (NOx). Oxides of: Carbon monoxide (CO). Carbon dioxide (CO2). Vapours/gases/fumes of: Ammonia or amines.

**11 TOXICOLOGICAL INFORMATION**

TOXIC DOSE 1 - LD 50                      2, 000 mg/kg (oral rat)

**INGESTION**

Corrosive. Even small amounts may cause serious damage.

**SKIN CONTACT**

Causes burns. Corrosive. Prolonged contact causes serious tissue damage. May be absorbed through the skin. May cause sensitisation by skin contact. Risk of sensitisation or allergic reactions among sensitive individuals.

**EYE CONTACT**

Causes burns. Risk of serious damage to eyes.

**HEALTH WARNINGS**

This substance is corrosive. This chemical may cause skin/eye irritation and burns (corrosive).

**ROUTE OF ENTRY**

Inhalation. Skin absorption. Ingestion.

**TARGET ORGANS**

Prolonged or repeated exposure may cause: May cause damage to the liver and kidneys. Respiratory system, lungs. Central nervous system.

**12 ECOLOGICAL INFORMATION****ECOTOXICITY**

Avoid releasing to the environment. The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

**MOBILITY**

Do not discharge into drains, water courses or onto the ground.

**WATER HAZARD CLASSIFICATION**

WGK 2

**13 DISPOSAL CONSIDERATIONS****DISPOSAL METHODS**

Dispose of waste and residues in accordance with local authority requirements.



## LIQUID HARDENER.

WASTE CLASS

08 04 99

### 14 TRANSPORT INFORMATION

GENERAL The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 15 REGULATORY INFORMATION

LABELLING



Corrosive



Harmful



Dangerous for the environment

CONTAINS

2-PIPERAZIN-1-YLETHYLAMINE

TRIETHYLENETETRAMINE

RISK PHRASES

R21	Harmful in contact with skin.
R34	Causes burns.
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

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

### 16 OTHER INFORMATION

REVISION DATE 02/10/2008

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DATE 06.01.05

RISK PHRASES IN FULL

R21	Harmful in contact with skin.
R21/22	Harmful in contact with skin and if swallowed.
R22	Harmful if swallowed.
R34	Causes burns.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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