Revision Date 11/08/2011
Revision 11
Supersedes date 08/06/2011

SAFETY DATA SHEET
LIQUID HARDENER.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name LIQUID HARDENER.

Product No. X0014

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Hardener.

1.3. Details of the supplier of the safety data sheet

Supplier

ITW DEVCON
BAY 150
SHANNON INDUSTRIAL ESTATE
SHANNON
CO CLARE
IRELAND
T: +353 (0)61471299
F: 353(0)61471285
info@itwppe.eu

1.4. Emergency telephone number

+44 (0) 1235 239670

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (1999/45/EEC) Xn;R21. C;R34. R43. N;R51/53.

2.2. Label elements

Contains NONYL PHENOL
TRIETHYLENETETRAMINE

Labelling


Corrosive


Harmful


Dangerous for the environment

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.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

2-PIPERAZIN-1-YLETHYLAMINE		1-10%
CAS-No.: 140-31-8	EC No.: 205-411-0	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Acute Tox. 4 - H302	C;R34
Acute Tox. 4 - H312	Xn;R21/22
Skin Corr. 1B - H314	R43
Skin Sens. 1 - H317	R52/53
Aquatic Chronic 3 - H412	

NONYL PHENOL		1-10%
CAS-No.: 25154-52-3	EC No.: 246-672-0	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Not classified.	Xn;R22. C;R34. N;R50/53.

TRIETHYLENETETRAMINE		30-60%
CAS-No.: 112-24-3	EC No.: 203-950-6	

Classification (EC 1272/2008)	Classification (67/548/EEC)
Acute Tox. 4 - H312	C;R34
Skin Corr. 1B - H314	Xn;R21
Skin Sens. 1 - H317	R43
Aquatic Chronic 3 - H412	R52/53

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of 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.

4.2. Most important symptoms and effects, both acute and delayed

General information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Specific hazards

Avoid breathing fire vapours.

5.3. Advice for firefighters

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.

Protective equipment for fire-figthers

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

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

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

6.2. 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.

6.3. Methods and material for containment and cleaning up

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.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

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.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Ingredient Comments

No exposure limits noted for ingredient(s).

8.2. Exposure controls

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Amber.
Odour	Amine.
Solubility	Soluble in water.
Initial boiling point and boiling range	232
Melting point (°C)	n/a
Relative density	0.98 20 ºC
Vapour density (air=1)	>1
Vapour pressure	<10mmHg 21.1
Evaporation rate	<<1 (butyl acetate =1)
pH-Value, Conc. Solution	10.5 @ 20 ºC
Flash point (°C)	>93

9.2. Other information

Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Strong oxidising agents. Acids.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Not available.

10.4. 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.

10.5. Incompatible materials

Materials To Avoid

Avoid contact with oxidising agents. Avoid contact with acids.

10.6. Hazardous decomposition products

Fire or high temperatures create: Nitrous gases (NOx). Oxides of: Carbon monoxide (CO). Carbon dioxide (CO_2). Vapours/gases/fumes of: Ammonia or amines.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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

Name	2-PIPERAZIN-1-YLETHYLAMINE
Toxic Dose 1 - LD 50	1470-2140 mg/kg (oral rat)

SECTION 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.

12.1. Toxicity

Acute Fish Toxicity

Very toxic to aquatic organisms.

12.2. Persistence and degradability

Degradability

There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential

No data available on bioaccumulation.

12.4. Mobility in soil

Mobility:

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

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

General information

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

13.1. Waste treatment methods

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

Waste Class

08 04 99

SECTION 14: TRANSPORT INFORMATION

General	No other information noted.

14.1. UN number

UN No. (ADR/RID/ADN)	2735
UN No. (IMDG)	2735
UN No. (ICAO)	2735

14.2. UN proper shipping name

Proper Shipping Name	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S (TRIETHYLENETETRAMINE, NONYL PHENOL)

14.3. Transport hazard class(es)

ADR/RID/ADN Class	8
ADR/RID/ADN Class	Class 8: Corrosive substances.
ADR Label No.	8
IMDG Class	8
ICAO Class/Division	8

Transport Labels

14.4. Packing group

ADR/RID/ADN Packing group	II
IMDG Packing group	II
ICAO Packing group	II

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

14.6. Special precautions for user

EMS	F-A, S-B
Emergency Action Code	2X
Hazard No. (ADR)	80
Tunnel Restriction Code	(E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No information required.

SECTION 15: REGULATORY INFORMATION

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

EU Legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Water hazard classification

WGK 2

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date	11/08/2011
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Supersedes date	08/06/2011
Date	21/07/2011

Risk Phrases In Full	
R34	Causes burns.
R22	Harmful if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R21	Harmful in contact with skin.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Hazard Statements In Full	
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H412	Harmful to aquatic life with long lasting effects.