



SAFETY DATA SHEET
UNDER WATER REPAIR PUTTY (UW) HARDENER

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME UNDER WATER REPAIR PUTTY (UW) HARDENER
 PRODUCT NO. X0016
 SUPPLIER ITW DEVCON
 BAY 150
 SHANNON INDUSTRIAL ESTATE
 SHANNON
 CO CLARE
 IRELAND
 T: 353(61)471299
 F: 353(61)471285

2 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
1,3-PROPANEDIAMINE, N[3-(TRIDECYCLOXY)PROPYL]-BRANCHED (ADOGEN 583)		68479-04-9	10-30%	C;R34.
2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL	202-013-9	90-72-2	1-10%	Xn;R22 Xi;R36/38

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

3 HAZARDS IDENTIFICATION

Causes burns. Harmful by inhalation, in contact with skin and if swallowed.

CLASSIFICATION Xn;R20/21/22. C;R34.

HUMAN HEALTH

Corrosive to skin and eyes. Corrosive. Prolonged contact causes serious eye and tissue damage.

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

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

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 spray, carbon dioxide, dry powder or polar resistant foam.

UNDER WATER REPAIR PUTTY (UW) HARDENER

SPECIAL FIRE FIGHTING PROCEDURES

Keep up-wind to avoid fumes. Avoid water in straight hose stream; will scatter and spread fire. Cool containers exposed to flames with water until well after the fire is out. 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 ANY environmental contamination. Do not discharge into drains, water courses or onto the ground. 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

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid contact with skin and eyes. Use only in well-ventilated areas. Provide good ventilation. Do not use in confined spaces without adequate ventilation and/or respirator. 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 cool, dry 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 suitable protective gloves if risk of skin contact.

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. Wash promptly with soap & water if skin becomes contaminated. Change work clothing daily if there is any possibility of contamination. Promptly remove any clothing that becomes contaminated.

SKIN PROTECTION

Wear apron or protective clothing in case of contact.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Paste

COLOUR

White / off-white

ODOUR

Amine.

UNDER WATER REPAIR PUTTY (UW) HARDENER

SOLUBILITY	Insoluble in water		
BOILING POINT (°C)	>260	MELTING POINT (°C)	n/d
RELATIVE DENSITY	1.48 20 °C	VAPOUR PRESSURE	<1
pH-VALUE, CONC. SOLUTION	10.5 @ 20 °C	VISCOSITY	1,300,000 25
FLASH POINT (°C)	>149	AUTO IGNITION TEMPERATURE (°C)	>300

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. Nitrous acid and other nitrosating agents.

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 1653 (DMP) mg/kg (oral rat)

TOXIC CONC. - LC 50 >0.5 (DMP) mg/l 8h/rat

INHALATION

Harmful by inhalation. Do not breathe vapour. Corrosive

INGESTION

Harmful if swallowed.

SKIN CONTACT

Harmful in contact with skin. Causes burns. Corrosive. Prolonged contact causes serious tissue damage.

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).

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Avoid release to the 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.

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

UNDER WATER REPAIR PUTTY (UW) HARDENER



Corrosive



Harmful

CONTAINS

1,3-PROPANEDIAMINE, N[3-(TRIDECYCLOXY)PROPYL]-BRANCHED (ADOGEN 583)

RISK PHRASES

R34 Causes burns.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

SAFETY PHRASES

S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

16 OTHER INFORMATION

REVISION DATE 10/08/2005

REV. NO./REPL. SDS GENERATED 9

DATE 21.01.05

RISK PHRASES IN FULL

R22 Harmful if swallowed.
R34 Causes burns.
R36/38 Irritating to eyes and skin.

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
UNDER WATER REPAIR PUTTY (UW) RESIN.

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME UNDER WATER REPAIR PUTTY (UW) RESIN.
 PRODUCT NO. X0008
 SUPPLIER ITW DEVCON
 BAY 150
 SHANNON INDUSTRIAL ESTATE
 SHANNON
 CO CLARE
 IRELAND
 T: 353(61)471299
 F: 353(61)471285

2 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

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

3 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.

4 FIRST-AID MEASURES

GENERAL INFORMATION

Avoid contact with 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. 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. Contact physician if irritation persists.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Extinguish with foam, carbon dioxide or dry powder.

SPECIAL FIRE FIGHTING PROCEDURES

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

UNDER WATER REPAIR PUTTY (UW) RESIN.

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

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 with sand or other inert absorbent. 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

Use only in well-ventilated areas. Handle and open container with care. Keep away from heat, sparks and open flame. Observe good industrial hygiene practices.

STORAGE PRECAUTIONS

Store in tightly closed original container in a cool, dry 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. Butyl rubber gloves are recommended.

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.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Paste

COLOUR

Dark Grey

SOLUBILITY

Slightly soluble in water.

BOILING POINT (°C)

>260

MELTING POINT (°C)

n/d

RELATIVE DENSITY

2.80 20 °C

VAPOUR PRESSURE

<0.03 mmHg 20

EVAPORATION RATE

<<1 (butyl acetate=1)

pH-VALUE, CONC. SOLUTION

7.0 @ 20 °C

FLASH POINT (°C)

> 204

UNDER WATER REPAIR PUTTY (UW) RESIN.

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

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

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)

SKIN CONTACT

Irritating to skin. May cause sensitisation by skin contact. The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals after repeated contact.

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. Skin and/or eye contact.

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.

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

UNDER WATER REPAIR PUTTY (UW) RESIN.

ADR CLASS	Class 9: Miscellaneous dangerous substances and articles.	ADR PACK GROUP	III
HAZARD No. (ADR)	90	ADR LABEL NO.	9
HAZCHEM CODE	2X	CEPIC 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
ICAO CLASS	9	AIR PACK GR.	III

15 REGULATORY INFORMATION

LABELLING



Irritant



Dangerous for the environment

CONTAINS

EPOXY RESIN (Number average MW <= 700)

RISK PHRASES

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

SAFETY PHRASES

S24/25	Avoid contact with skin and eyes.
S37/39	Wear suitable gloves and eye/face protection.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28	After contact with skin, wash immediately with plenty of water.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.
P5	Contains epoxy constituents. See information supplied by the manufacturer.

16 OTHER INFORMATION

REVISION DATE 10/08/2005
 REV. NO./REPL. SDS GENERATED 8
 DATE 05.01.05

RISK PHRASES IN FULL

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.

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