



SAFETY DATA SHEET WILLOWCHEM 95

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME	WILLOWCHEM 95
APPLICATION	Anodic Etching Product
SUPPLIER	WILLOWCHEM TECHNOLOGY LIMITED UNIT 6 & 7 HIRWAUN INDUSTRIAL ESTATE HIRWAUN MID GLAMORGAN SOUTH WALES CF44 9YE Telephone Number: 01685 812211
EMERGENCY TELEPHONE	24 hour Emergency Contact Number: 01685 812211 e-mail address of Competent Person: colinowen@willowchem.co.uk

2 HAZARDS IDENTIFICATION

Causes severe burns. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CLASSIFICATION C:R35. R52/53.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
CITRIC ACID	201-069-1	77-92-9	10-20%	-
NICKEL SULPHATE	232-104-9	7786-81-4	<1%	Carc3;R40 Xn;R22 R42/43 N;R50/53
PHOSPHORIC ACID ...%	231-633-2	7664-38-2	5-10%	C;R34
SULPHURIC ACID ...%	231-639-5	7664-93-9	36-50%	C;R35

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

4 FIRST-AID MEASURES

INHALATION

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Keep the affected person warm and at rest. Get prompt medical attention. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.

INGESTION

DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Get medical attention immediately! Provide rest, warmth and fresh air.

SKIN CONTACT

Remove affected person from source of contamination. Remove contaminated clothing. Rinse the skin immediately with lots of water. Get medical attention immediately

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES

Containers close to fire should be removed immediately or cooled with water.

SPECIFIC HAZARDS

Fire creates: Toxic gases/vapours/fumes of Sulphurous gases (SOx). Phosphoric acid mist.

WILLOWCHEM 95**PROTECTIVE MEASURES IN FIRE**

Wear self-contained breathing apparatus and protective clothing (including fire-fighting helmet, coat, trousers, boots and gloves).

6 ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS**

In case of a major spillage, full protective equipment including a respirator or self-contained breathing apparatus must be worn.

ENVIRONMENTAL PRECAUTIONS

Do not allow to enter sewers or water courses. If spillage does enter sewers or water courses, immediately inform appropriate authorities.

SPILL CLEAN UP METHODS

DO NOT TOUCH SPILLED MATERIAL! Wear necessary protective equipment. Neutralise small amounts with sodium bicarbonate or lime and flush to sewer with large amounts of water. Large spills, dilute, then neutralise with caustic solution. Absorb in vermiculite, dry sand or earth and place into containers. Flush area with plenty of water.

7 HANDLING AND STORAGE**USAGE PRECAUTIONS**

Avoid spilling, skin and eye contact. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Eye wash facilities and emergency shower must be available when handling this product.

STORAGE PRECAUTIONS

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

STORAGE CLASS

Corrosive storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
PHOSPHORIC ACID ...%	WEL		1 mg/m3		2 mg/m3

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT**ENGINEERING MEASURES**

Provide adequate general and local exhaust ventilation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit.

HAND PROTECTION

Use protective gloves made of: Rubber (natural, latex). Butyl rubber. Neoprene. Polyethylene. P.T.F.E (Teflon). or Polyethylene/Ethylene Vinyl Alcohol (PE/EVAL).

EYE PROTECTION

Use approved safety goggles or face shield.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of skin contact.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear liquid		
COLOUR	Green		
ODOUR	No characteristic odour.		
SOLUBILITY	Completely soluble in water		
RELATIVE DENSITY	1.42 @ 20°C	pH-VALUE, DILUTED SOLUTION	~ 1 ~

WILLOWCHEM 95**10 STABILITY AND REACTIVITY**

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Reacts with alkalis and generates heat.

MATERIALS TO AVOID

Strong alkalis. Metals

HAZARDOUS DECOMPOSITION PRODUCTS

Fire or high temperatures create: Corrosive gases/vapours/fumes of: Sulphuric acid (H₂SO₄). Sulphurous gases (SO_x). Phosphoric acid mist.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 264 (Nickel sulphate) mg/kg (oral rat)

INHALATION

May cause irritation to the respiratory system.

INGESTION

May cause stomach pain or vomiting.

SKIN CONTACT

Causes severe burns.

EYE CONTACT

Strongly corrosive. Causes severe burns and serious eye damage. Immediate first aid is imperative.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Dangerous for the environment if discharged into watercourses.

LC 50, 96 Hrs, FISH mg/l 13.9 (Rainbow Trout)

MOBILITY

The product is soluble in water.

BIOACCUMULATION

The product contains potentially bioaccumulating substances.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Neutralise with soda ash/slaked lime and discharge to sewer with lots of water. Dispose of waste and residues in accordance with local authority requirements.

14 TRANSPORT INFORMATION

UK ROAD CLASS	8		
PROPER SHIPPING NAME	CORROSIVE LIQUID, N.O.S.		
UN NO. ROAD	1760	UK ROAD PACK GR.	II
ADR CLASS NO.	8	ADR CLASS	Class 8: Corrosive substances.
ADR PACK GROUP	II	HAZARD NO. (ADR)	80 Corrosive or slightly corrosive substance.
ADR LABEL NO.	8		

15 REGULATORY INFORMATION

LABELLING

WILLOWCHEM 95

Corrosive

RISK PHRASES

R35 Causes severe burns.
 R52/53 Harmful 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 seek medical advice.
 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).
 S60 This material and its container must be disposed of as hazardous waste.
 P14 Contains inorganic nickel salt. May produce an allergic reaction.

16 OTHER INFORMATION

REVISION DATE 20/09/07
 REV. NO./REPL. SDS GENERATED 1
 SDS NO. 2007/10839

RISK PHRASES IN FULL

R22 Harmful if swallowed.
 R34 Causes burns.
 R35 Causes severe burns.
 R40 Limited evidence of a carcinogenic effect.
 R42/43 May cause sensitisation by inhalation and skin contact.
 R50/53 Very 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

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