

**Ardrox 1074**

Version: 1 . 26.04.2004

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**

English

**Product information**

Commercial Product Name      Ardrox 1074

**Recommended use:**

Cleaning agent for metal surfaces, Pickling agent for metal surfaces

Company:                              Chemetall plc  
Denbigh Road  
Bletchley Milton Keynes MK1 1PB

Lead Organisation:

Telephone:                              01908 649333

Telefax:                                      01908 373939

Emergency telephone number:      01908 649333

Contact person:

**2. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical characterization:**

Mixture of acids and organic solvents in an inorganic gelling agent.

Hazardous components	CAS-No. EINECS-No. ELINCS-No.	Symbol(s)	R- phrase(s)	Concentration
Orthophosphoric acid	7664-38-2 231-633-2	C	R34	2.50 - 10.00 %
Ethyl-methyl-ketone	78-93-3 201-159-0	F, Xi	R11, R36, R66, R67	1.00 - 2.50 %
2,2'-oxydiethanol; diethylene-glycol	111-46-6 203-872-2	Xn	R22	1.00 - 2.50 %
2-Butoxyethanol	111-76-2 203-905-0	Xn	R20/21/22, R36/38	1.00 - 2.50 %
Citric acid	77-92-9 201-069-1	Xi	R36	1.00 - 2.50 %
Hydrofluoric Acid	7664-39-3 231-634-8	T+, C	R26/27/28, R35	0.10 - 1.00 %

**3. HAZARDS IDENTIFICATION****Risk advice to man and the environment****Indication of danger:**              Xn              Harmful

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R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.  
R36/37/38 Irritating to eyes, respiratory system and skin.

### 4. FIRST AID MEASURES

**General advice:**

Take off contaminated clothing and shoes immediately. Have eye wash bottle or eye rinse ready at the work place.

**Eye contact:**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

**Skin contact:**

Wash off immediately with plenty of water for at least 15 minutes. First treatment with calcium gluconate paste. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.

**Inhalation:**

Move to fresh air. If symptoms persist, call a physician.

**Ingestion:**

Clean mouth with water and drink afterwards plenty of water. Call a physician immediately.

### 5. FIRE-FIGHTING MEASURES

**Specific hazards during fire fighting:**

Combustion may cause: carbon dioxide (CO<sub>2</sub>) Carbon monoxide oxides of phosphorus nitrogen oxides (NO<sub>x</sub>) hydrogen fluoride

**Special protective equipment for fire-fighters:**

In the event of fire, wear self-contained breathing apparatus.

**Suitable extinguishing media:**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Further information:**

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Use personal protective equipment.

**Environmental precautions:**

Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up:**

Soak up with liquid binder (sand, kieselguhr, acid binder, universal binder). Sweep up or vacuum up spillage and collect in suitable container for disposal. Ensure adequate ventilation.

### 7. HANDLING AND STORAGE

**Handling**

**Safe handling advice:**

Have eye wash bottle or eye rinse ready at the work place. Avoid contact with eyes. Provide sufficient air exchange and/or exhaust in work rooms.

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**Advice on protection against fire and explosion:**  
No special protective measures against fire required

**Storage****Requirements for storage areas and containers:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.

**Storage stability**

**Storage temperature:**  
0 - 40 °C

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Components with workplace control parameters****Orthophosphoric acid 7664-38-2**

	Value	Update	Basis
TWA	1.00 mg/m <sup>3</sup>	2002	EH40 OES
STEL	2.00 mg/m <sup>3</sup>	2002	EH40 OES
TWA	1.00 mg/m <sup>3</sup>	05 2001	EU ELV
STEL	2.00 mg/m <sup>3</sup>	05 2001	EU ELV

**2,2'-oxydiethanol; diethylene-glycol 111-46-6**

	Value	Update	Basis
TWA	101.00 mg/m <sup>3</sup> 23.00 ppm	2002	EH40 OES

**Ethyl-methyl-ketone 78-93-3**

	Value	Update	Basis
TWA	600.00 mg/m <sup>3</sup> 200.00 ppm	2002	EH40 OES
STEL	899.00 mg/m <sup>3</sup> 300.00 ppm	2002	EH40 OES
SKIN_DES	Can be absorbed through the skin.	2002	EH40 OES
TWA	600.00 mg/m <sup>3</sup> 200.00 ppm	05 2001	EU ELV
STEL	900.00 mg/m <sup>3</sup> 300.00 ppm	05 2001	EU ELV

**2-Butoxyethanol 111-76-2**

	Value	Update	Basis
TWA	25.00 ppm	2002	EH40 OES
STEL	50.00 ppm	2002	EH40 OES
SKIN_DES	Can be absorbed through the skin.	2002	EH40 OES
TWA	98.00 mg/m <sup>3</sup> 20.00 ppm	05 2001	EU ELV
STEL	246.00 mg/m <sup>3</sup> 50.00 ppm	05 2001	EU ELV
SKIN_DES	Can be absorbed through the skin.	05 2001	EU ELV

**Personal protective equipment****Respiratory protection:**

In case of insufficient ventilation, wear suitable respiratory equipment.

**Hand protection:**

Wear neoprene gloves to prevent contact with hydrofluoric acid. (EN374)

**Eye protection:**

tightly fitting safety goggles (EN166-3)

**Skin and body protection:**

protective suit, Chemical resistant apron

**Hygiene measures:**

Avoid contact with the skin and the eyes. Keep away from food, drink and animal feedingstuffs. Take off contaminated clothing and shoes immediately. Wash hands before breaks and at the end of workday.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form: liquid  
Colour: yellow  
Odour: characteristic like solvents

**Change in physical state**

Solidification temperature/range: < -2 °C  
Boiling point/range: 95 °C

Flash point: not applicable

Ignition temperature: not applicable  
Lower explosion limit: not applicable

Density: 1.03 g/cm<sup>3</sup>  
at 20 °C

Water solubility: completely miscible

pH: 3.3  
at: 20 °C  
(undiluted)

pH: 3.1  
at: 330 g/l  
at: 20 °C

**10. STABILITY AND REACTIVITY****Materials to avoid**

Incompatible with bases.

**Hazardous decomposition products**

Decomposes on heating., Carbon oxides, oxides of phosphorus, nitrogen oxides (NO<sub>x</sub>), ammonia, hydrogen fluoride

**Hazardous reactions:**

Gives off hydrogen by reaction with metals.

**Stability:**

Stable under normal conditions.

**Note:**

No decomposition if used as directed.

**11. TOXICOLOGICAL INFORMATION****Skin irritation:**

Irritating to skin.

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**Eye irritation:**

Irritating to eyes.

**Sensitization:**

No sensitising effects are known.

**Further information:**

Harmful by inhalation, in contact with skin and if swallowed. Irritating to respiratory system.

**12. ECOLOGICAL INFORMATION**

**Elimination information (persistence and degradability)**

**Biodegradability:**

Remarks: no data available

**Further information:**

slightly water endangering

**Further information:**

Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

**13. DISPOSAL CONSIDERATIONS**

**Waste key for the unused product:**

070601 aqueous washing liquids and mother liquors

**Product:**

Dispose of as special waste in compliance with local and national regulations

**Contaminated packaging:**

Dispose of as special waste in compliance with local and national regulations

**14. TRANSPORT INFORMATION**

Regulation : ADR

UN/ID No.: 3264

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., Orthophosphoric acid, Hydrofluoric Acid

Packaging group: III

Class: 8

Regulation : RID

UN/ID No.: 3264

Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., Orthophosphoric acid, Hydrofluoric Acid

Packaging group: III

Class: 8

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Regulation : IMDG  
 UN/ID No.: 3264  
 Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., Orthophosphoric acid, Hydrofluoric Acid  
 Packaging group: III  
 Class: 8  
 EmS: F-A S-B

Regulation : IATA\_C  
 UN/ID No.: 3264  
 Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., Orthophosphoric acid, Hydrofluoric Acid  
 Packaging group: III  
 Class: 8

Regulation : IATA\_P  
 UN/ID No.: 3264  
 Proper shipping name : CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., Orthophosphoric acid, Hydrofluoric Acid  
 Packaging group: III  
 Class: 8

**15. REGULATORY INFORMATION****Hazardous components which must be listed on the label:**

- 2,2'-oxydiethanol; diethylene-glycol
- 2-Butoxyethanol
- Hydrofluoric Acid

Labelling:	Xn	Harmful
R-phrase(s):	R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
	R36/37/38	Irritating to eyes, respiratory system and skin.
S-phrase(s):	S 9	Keep container in a well-ventilated place.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S36/37	Wear suitable protective clothing and gloves.
	S60	This material and its container must be disposed of as hazardous waste.

**Other regulations:**

The product is classified and labelled in accordance with EC directives or respective national laws.

**16. OTHER INFORMATION****Text of R phrases mentioned in Section 2+3**

**R34** Causes burns.  
**R11** Highly flammable.  
**R36** Irritating to eyes.  
**R66** Repeated exposure may cause skin dryness or cracking.  
**R67** Vapours may cause drowsiness and dizziness.

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**R22** Harmful if swallowed.

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

**R36/38** Irritating to eyes and skin.

**R36** Irritating to eyes.

**R26/27/28** Very toxic by inhalation, in contact with skin and if swallowed.

**R35** Causes severe burns.

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

**R36/37/38** Irritating to eyes, respiratory system and skin.

The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.