

Material Safety Data Sheet
According to 91/155 EEC

Printing date 15.12.2004

Reviewed on 15.12.2004

*** 1 Identification of substance:****Trade name: Fi-CLOR STAIN & SCALE REMOVER****Article number:** 10600 Fi-Clor**Application of the substance / the preparation**Water treatment
Cleaning material/ Detergent
Deliming agent**Manufacturer/Supplier:**ARCH CHEMICALS Ltd
Wheldon Road - Castleford - West Yorkshire WF10 2JT - ENGLAND
Telephone: + 44 (0) 1977 714 100
Fax: + 44 (0) 1977 712 456**Information in case of emergency:**CALL A LOCAL NATIONAL POISON CONTROL UNIT
OR ARCH USA CHEMICALS EMERGENCY 24 HOUR TEL No. + 1-423-780-2970
FOR UK CONTACT NCEC Tel 01865 407 333**2 Composition/Data on components:****Chemical characterization****Description:** Mixture of substances listed below with nonhazardous additions.**Dangerous components:**

CAS: 7647-01-0	hydrogen chloride	C; R 34-37	10-25%
EINECS: 231-595-7			
CAS: 7664-38-2	phosphoric acid	C; R 34	10-25%
EINECS: 231-633-2			
CAS: 64-18-6	formic acid	C; R 35	0.1-2.5%
EINECS: 200-579-1			
CAS: 111-76-2	2-butoxyethanol	Xn; R 20/21/22-36/38	0.1-2.5%
EINECS: 203-905-0			
CAS: 67-63-0	propan-2-ol	Xi, F; R 11-36-67	0.1-2.5%
EINECS: 200-661-7			

Additional information For the wording of the listed risk phrases refer to section 16.**3 Hazard identification****Hazard description:**

C Corrosive

Information concerning to particular hazards to man and environment

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

R 34 Causes burns.

R 37 Irritating to respiratory system.

Classification system

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

4 First aid measures**General information**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation In case of unconsciousness place patient stably in side position for transportation.**After skin contact**

Rinse with warm water.

Immediately wash with water and soap and rinse thoroughly.

Immediately rinse with water.

After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor.

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After swallowing

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

5 Fire fighting measures**Suitable extinguishing agents** Water spray**Protective equipment:** No special measures required.**6 Accidental release measures****Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.**Measures for environmental protection:**

Keep contaminated washing water and dispose of appropriately.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7 Handling and storage**Handling****Information for safe handling:** No special precautions are necessary if used correctly.**Information about fire - and explosion protection:** No special measures required.**Storage****Requirements to be met by storerooms and receptacles:** Store only in unopened original receptacles.**Information about storage in one common storage facility:** Store away from oxidizing agents.**Further information about storage conditions:** Keep receptacle tightly sealed.**8 Exposure controls and personal protection gear****Additional information about design of technical facilities:** No further data; see item 7.**Ingredients with limit values that require monitoring at the workplace:****7647-01-0 hydrogen chloride**OES Short-term value: 8 mg/m³, 5 ppmLong-term value: 2 mg/m³, 1 ppm

gas and aerosol mists; ILV

7664-38-2 phosphoric acidOES Short-term value: 2 mg/m³Long-term value: 1 mg/m³

IOELV, Sk

64-18-6 formic acidOES Long-term value: 9.6 mg/m³, 5 ppm

ILV

111-76-2 2-butoxyethanol

OES Short-term value: 50 ppm

Long-term value: 25 ppm

Sk, , IOELV

57-55-6 propane-1,2-diolOES Long-term value: 474* 10** mg/m³, 150* ppm

*total (vapour and particulates) **particulates

67-63-0 propan-2-olOES Short-term value: 1250 mg/m³, 500 ppmLong-term value: 999 mg/m³, 400 ppm**Additional information:** The lists valid during the making were used as basis.**Personal protective equipment****General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

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Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:

Protective gloves.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:

Tightly sealed goggles.

Body protection: Protective work clothing.

9 Physical and chemical properties:

General Information

Form:	Fluid
Colour:	Light yellow
Odour:	Pungent

Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined

Flash point:	Not applicable
Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Vapour pressure at 20°C:	20 hPa
Density at 20°C:	1.15 - 1.17 g/cm ³
Solubility in / Miscibility with Water:	Fully miscible
pH-value at 20°C:	< 0
Solvent content:	
Organic solvents:	6.0 %

10 Stability and reactivity

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

Dangerous reactions No dangerous reactions known

Dangerous decomposition products: Poisonous gases/vapours

11 Toxicological information

Acute toxicity:**Primary irritant effect:**

on the skin: Caustic effect on skin and mucous membranes.

on the eye: Strong caustic effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

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Harmful
Corrosive
Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information:

General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

13 Disposal considerations

Product:

Recommendation

Must be specially treated adhering to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Uncleaned packaging:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information

Land transport ADR/RID (cross-border)



ADR/RID class: 8 Corrosive substances.

Item: C9

Danger code (Kemler): X80

UN-Number: 1760

Hazard label 8

Description of goods: 1760 Corrosive liquid, n.o.s., hydrochloric acid

Maritime transport IMDG:



IMDG Class: 8

UN Number: 1760

Label 8

Packaging group: II

EMS Number: F-A,S-B

MFAG: 760

Marine pollutant: No

Proper shipping name: Corrosive liquid, n.o.s., hydrochloric acid

Air transport ICAO-TI and IATA-DGR:



ICAO/IATA Class: 8

UN/ID Number: 1760

Label 8

Packaging group: II

Proper shipping name: Corrosive liquid, n.o.s., hydrochloric acid

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15 Regulations

Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

Code letter and hazard designation of product:



C Corrosive

Hazard-determining components of labelling:

hydrogen chloride
phosphoric acid
formic acid

Risk phrases:

34 Causes burns.
37 Irritating to respiratory system.

Safety phrases:

1/2 Keep locked up and out of the reach of children.
25 Avoid contact with eyes.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
27/28 After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
56 Dispose of this material and its container to hazardous or special waste collection point.
64 If swallowed, rinse mouth with water (only if the person is conscious).

National regulations

Technical instructions (air):

Class	Share in %
I	2.5
II	2.0
III	4.0

Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

16 Other information:

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant R-phrases

11 Highly flammable.
20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
34 Causes burns.
35 Causes severe burns.
36 Irritating to eyes.
36/38 Irritating to eyes and skin.
37 Irritating to respiratory system.
67 Vapours may cause drowsiness and dizziness.

* **Data compared to the previous version altered.**