SSC/008005 dated 13/11/2003, revision 1, made by RLB, approved by RLB, filled by RLB

1. IDENTIFICATION OF THE SUBSTANCE/FORMULA AND OF THE COMPANY

Trade name: DESCALER Trade code: 008005 Product and use: descaler for pipe coils Supplier: ATAS SRL Via Nazionale 279 – 42045 CODISOTTO DI LUZZARA (RE) Tel. n. (for urgent phone calls) of the Firm or of an official authority to be kept in contact with: ATAS SRL – LUZZARA (RE) – ITALY: 0039.522.976731

2. COMPOUNDS / INFORMATION ON THE INGREDIENTS

Substances harmful for human health according to the Directive 67/548/CEE and next revisions: 30% - 40% Phosphoric Acid

N. 67/548/CEE: 015 – 011 – 00 – 6 CAS: 7664 – 38 – 2 EINECS: 231 – 633 – 2 C R34

5% - 7% Chloridric Acid

N. 67/548/CEE: 017 – 002 – 01 CAS: 7647 – 01 –0 EINECS: 231 – 595 – 7 C R34 R37

3. IDENTIFICATION OF THE DANGERS

The product is corrosive, so if it gets in contact with skin, it can provoke serious burns, ruining the whole skin tissue.

4. FIRST AID

Contact with skin:

take immediately the polluted clothes off

In case of contact with skin, wash it immediately and abundantly with plenty of water. SEEK IMMEDIATELY FOR MEDICAL ADVICE

Contact with eyes:

wash immediately and abundantly with plenty of water, keeping eyes open, for at least ten minutes; then protect them by sterile, clean and dry cloth. SEEK FOR MEDICAL ADVICE. Do not use any eye drops or cream before medical visit or advise by a specialist.

INGESTION:

do not provoke any vomit, absolutely. SEEK FOR MEDICAL ADVICE IMMEDIATELY. Drink water and albumen mixed together; do not drink any bicarbonate.

INHALATION:

aerate the room. Remove immediately the patient from the contaminated room and keep him cooled in an aerate place. CALL A DOCTOR.

5. FIRE MEASURES

Recommended fire extinguishers:

Water, CO2, foam, chemical dusts considering the contaminated materials on fire. Forbidden fire extinguishers:

No one in particular.

Fire dangers:

avoid to breath vapours.

Protective means:

use breathing protections

6. MEASURES IN CASE OF ACCIDENTAL SPREAD

Individual means of protection:

wear a mask, gloves and protective clothes

Environmental protections:

contain the leak of material with soil or sand.

If the product goes into a river, sewer, or if it pollutes soil or vegetation, call immediately the competent authorities.

Means of cleansing:

fastly collect the product wearing protective mask and clothes.

If the product is liquid, avoid its penetration into sewer.

Collect the product to re-use it, if possible, or to eliminate it. Eventually, absorb it with adequate materials.

After the collecting, wash the polluted areas and materials with water.

7. STORAGE

Manipulating precautionary measures:

avoid the contact and inhalation of vapours. Look at next paragraph 8.

During the manipulation, do not eat or drink.

Incompatible materials:

no one in particular. Look at next paragraph 10.

Storing conditions:

Recommendations for rooms:

conveniently aerate rooms.

8. INDIVIDUAL PROTECTION / CHECK OF THE EXPOSURE

Precautionary measures:

conveniently aerate rooms where the product is stored and manipulated.

Breathing protection:

not necessary for normal use.

Hand protection:

use protective gloves.

Eye protection:

protective glasses.

Skin protection:

wear skin completely protective clothes. Exposure limits of the contained substances: phosphoric acid TLV TWA: 1mg/m3 TLV STEL: 3 mg/m3

9. PHISICAL AND CHEMICAL PROPERTIES

Aspect and colour:	uncoloured liquid
Odour:	light
pH:	completely acid
Fusion point:	n.a.
Boiling point:	n.d.
Flammability point:	100 °C
Solid/gas flammability:	no one
Self-flammability:	no one
Explosive properties:	no one
Combustion properties:	no one
Vapour pressure:	n.d.
Relative density:	about 1,300
Solubility in water:	complete
Lypo-solubility:	unsolvable
Division factor (n-octanol/water):	n.d.
Vapour density:	n.d.

10. STABILITY AND REACTIVITY

Conditions to be avoided:

stable in normal conditions.

Substances to be avoided:

no one in particular.

Decomposition dangers:

it can create flammable gas if it gets in contact with ditiocarbammati, mercaptans or other organic sulphates, elementary metals (alkaly, alkaline soils, dust alloys, vapours), strong reductive agents.

It can generate toxic gas if it gets in contact with inorganic fluorides, organic halogenate substances, sulphates, nitrates, nitrites, organo-phosphates, strong oxidant agents. It can fire if in contact with ditiocarbammati, elementary metals (alkaly, alkaline soils, dust alloys, vapours, plates and bars), nitrates.

11. TOXICOLOGICAL INFORMATION

There are no toxicological data about the product as it is. So, keep into consideration the concentration of the single substances to evaluate the toxicological effects due to the exposure to the product itself.

You can find herewith listed the toxicological information about the main substances contained in the product:

Phosphoric acid:

LD50 (rabbit) skin absorption: 2740 mg/KG LD50 (mouse) swallowed 1530 mg/KG TCLO 100 mg/KG (human being) Hydrochloric acid:

breathing apparatus: inhalation, ingestion, contact

Serious toxicity: LD50 oral (mouse) 900 mg/kg – LC50 inhalation (mouse) 3124 ppm/1h. Contact with eyes: corrosive; it provokes corneal lesions; always use individual protective means.

Contact with skin: corrosive; it provokes skin lesions.

Breathing apparatus: vapours and aerosols are corrosive for the breathing apparatus. Their inhalation provokes throat-ache, short breath and broncho-ache.

12 ECOLOGICAL INFORMATION

To be used following the good working procedures, avoiding to spread it in the environment.

13. DETAILS

Collect, if possible. Bring it to authorized removing plants or incinerators under careful control. Act following the current national and local rules.

14. INFORMATION ABOUT TRANSPORTATION			
ADR- number ONU:	3264		
ADR-class:	8		
ADR-shipping name:	inorganic corrosive liquid, acid N.O.S. (phosphoric acid and chloridric		
	acid)		
ADR-label:	8		
ADR-packing group:	III		

15. INFORMATION ABOUT RULES

D.M. 28/1/1992 D.Lgs. 3/2/1997 n.52, D. Lgs. 14.03.03 n.65 (classification and labelling) Directive 1999/45/CE and Directive 2001/58/ce (Safety Data Sheet)

Symbols:

C Corrosive

R sentences:

R34 it provokes serious burns

S sentences:

S26 in case of contact with eyes, wash them immediately and abundantly with plenty of water, then seek for medical advice.

S27take the polluted clothes off immediately.

S28 in case of contact with skin, wash it immediately and abundantly with plenty of water. S45 in case of accident or general disease, seek for medical advice (if possible, show him the label of the product)

S1/2 keep the product away from children.

S36/37/39 use protective clothes and gloves; protect one's own eyes / face.

Details:

PACK1 The packaging must have a safety lock for children and a tactile warning instruction for blind people.

Contains:

Phosphoric acid

Groups of substances according to DPR 303/56:

no one

Classes of solvents according to DPR 203/88 (SOV):

no one

When it is possible, following these rules:

ministerial directives 46 and 61 (aromatic amines) Law 136/83 (biodegradability of the detergents) D.P.R. 175/88 (Seveso Directive), enclosed sheet II°, III°, IV° D.P.R. 250/89 (labelling of the detergents)

16. FURTHER INFORMATION

Text of sentences R used in paragraph 2: R34 it provokes serious burns R37 irritating for breathing apparatus

Main bibliographical sources:

ECDIN – Environmental Chemicals Data and Information Network – Joint Research Centre, Commission of the European Communities SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS – Eight Edition – Va Nostrand Reinold ACGIH – Treshold Limit Value – 1997 edition

The information here contained are based on our knowledge in relation to the above mentioned date. They concerned the product here described and do not guarantee any particular quality. The user must check the validity of such information in relation to the specific use of the product itself. This sheet substitutes any other possible previous document.