SAFETY DATA SHEET MUSCAL

SSC/008011 dated 13/11/2003, revision 1 made by RLB, approved by RLB, filed by RLB

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

Trade name: MUSCAL Trade code: 008011

Product and use: moss, mold and algae remover

Supplier:

ATAS srl, Via Nazionale 279 – 42045 CODISOTTO DI LUZZARA (RE)

Tel. number (for urgent phone calls) of the Firm or of an official authority to be kept

in touch with:

ATAS SRL - LUZZARA (RE) - ITALY: 0039.522.976731

2. COMPOUNDS / INFORMATION ON THE INGREDIENTS

Substance harmful for human health according to the Directive 67/548/CEE and next revisions: 1% - 3% poli-(2-hydroxy-3-ione) quaternary chloride.

CAS: 25968-97-0

N Xi R36 R50 R53

3. IDENTIFICATION OF THE DANGERS:

Toxic for aquatic organisms; can provoke negative effects for the aquatic environment.

4. FIRST AID

Contact with skin:

wash abundantly with plenty of water and soap.

Contact with eyes:

wash immediately with water for at least ten minutes.

Ingestion:

Do not cause any vomit. Seek for medical advice immediately.

Inhalation:

aerate the room. Remove immediately the patient from the polluted area and keep him cooling in open air. In case of disease, seek for medical advice.

5. FIRE MEASURES

Recommended fire extinguishers:

water, CO2, foam, chemical dust considering the contaminated materials on fire.

Forbidden fire extinguishers:

no one in particular.

Combustion risks:

avoid to breath vapours.

Protective means:

use breathing protections.

6. MEASURES IN CASE OF ACCIDENTAL SPREAD

Individual protections.

Wear protective gloves and clothes.

Environmental precautions:

collect the spreading product 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:

if the product is a liquid, avoid to get it into a sewer.

Collect it to be re-used, if possible, or to be completely removed. Eventually, absorb it with inactive material.

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

7. STORAGE

Manipulating precautionary measures:

avoid contact and swallowing of vapours. Look at next paragraph 8.

Incompatible materials:

do not mix with acid substances.

Storing conditions:

Advices for the rooms:

adequately aerating rooms.

8. INDIVIDUAL PROTECTIONS / 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:

not necessary for normal use.

Eye protection:

not necessary for normal use. However, act following the good working procedures.

Skin protection:

no particular precaution is adopted for normal use.

n.a.

Exposure limits of the contained substances:

no one.

9. PHISICAL AND CHEMICAL PROPERTIES

Aspect and colour: clear liquid Odour: characterized pH: alkaline Fusion point: n.a. Boiling point: 100° Flammability point: 100°C Solid /gas flammability: n.a. Self-flammability: no one Explosive properties: no one Combustion properties: no one Vapour pressure: n.d. Relative density: 1.010 Solubility in water: complete Lipo-solubility: in-solvable Division factory (n-octanol/water): n.d.

10. STABILITY AND ERACTIVITY

Conditions to be avoided.

Vapour density:

Stable in normal conditions.

Substances to be avoided:

no one in particular.

no one.

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 enclosed the toxicological information about the main substances contained in the product:

there are no other available toxicological information about the substances themselves. However, look at paragraph 2.

12. ECOLOGICAL INFORMATION

To be used following the good working procedures, avoiding to spread the product in the environment. List of the substances which are considered dangerous for the environment and relative classification:

1 % - 3 % Poli- (2-hydroxy-3-ione) quaternary chloride

CAS: 25968-97-0

R50 highly toxic for the aquatic organisms

R53 can provoke negative effects for the aquatic environment

13. DETAILS

Collect, if possible. Act following the current local and national rules.

14. INFORMATION ABOUT THE TRANPORTATION

ADR-class: not dangerous

15. INFORMATION ABOUTRULES

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 Sheets)

R sentences:

R52/53 toxic for the aquatic organism; van provoke negative effects in the aquatic environment

S sentences:

S46 in case of ingestion, seek immediately for medical advice and show the doctor the container or the label of the product

S 50 do not mix with acid substances

S 61 do not spread in the environment. Look at the specific instructions / informative sheets about safety.

S 2 keep away from children.

Groups of substances according to DPR 303/56:

no one

Classes of solvents according to DPR 203/88:

no one

Where it is possible, look at the following directives:

ministerial directives 46 and 61 (aromatic amines)

Law 136/83 (biodegradable detergent)

D.P.R. 175/88 (Seveso directive), attachment II°, III°, IV°

D.P.R. 250/89 (labelling of the detergents)

16. FURTHER INFORMATION

Text of R sentences used in paragraph 2:

R36 irritating for eyes

R 50 highly toxic for the aquatic organisms

R 53 can provoke negative effects for the aquatic environment

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 – Van Nostrand Reinold

ACGIH – Treshold Limit Values – 1997 edition

The information here contained are based on our knowledge in relation to the above mentioned date. They concern 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.