



Safety Data Sheet dated 19/5/2006, version 1

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Trade name: DOMARK 100 EC
Trade code: 5765SL
Product type and use: Fungicide
Company:
ISAGRO S.p.A. – Via Caldera, 21 – 20153 – Milan
Emergency telephone number of the company and/or of an authorised advisory centre:
Phone n.. ++39 02 40 901 276

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components within the meaning of EEC directive 67/548 and corresponding classification:

70% - 80% Solvent naphta (petroleum)

N.67/548/CEE: 649-424-00-3 CAS: 64742-94-5 EINECS: 265-198-5
Xn R65

10% - 12.5% (+/-) 2-(2,4-dichlorophenyl)-3-(1 H -1,2,4-triazol-1-yl)propyl-1,1,2,2-tetrafluoroethylether
Tetraconazole

N.67/548/CEE: 613-174-00-3 CAS: 112281-77-3 EINECS: 407-760-7
N Xn R20/22 R51/53

3% - 5% 1,2,4-trimethylbenzene

N.67/548/CEE: 601-043-00-3 CAS: 95-63-6 EINECS: 202-436-9
N Xn R10 R20 R36/37/38 R51/53

1% - 3% Ethoxylated fatty amine

CAS: 61791-26-2
Xn R22 R36

1% - 3% Triethanolamine dodecylbenzene sulphonate

CAS: 27323-41-7
Xi R38 R41

1% - 3% Kerosine - unspecified

N.67/548/CEE: 649-424-00-3 CAS: 64742-94-5 EINECS: 265-198-5
Xn R65

0.5% - 1% naphthalene

N.67/548/CEE: 601-052-00-2 CAS: 91-20-3 EINECS: 202-049-5
N Xn R22 R40 R50/53

3. HAZARDS IDENTIFICATION

The product is harmful following acute exposure to it and poses a serious health threat if ingested.
If brought into contact with the eyes, the product causes irritation that may last for over 24 hours, and if brought into contact with the skin it causes significant inflammation with erythema, scabs, and oedema.
The product is harmful: may cause lung damage if swallowed.
Repeated exposure to the product may cause skin dryness or cracking.
Vapours of the product may cause drowsiness and dizziness.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Contact with skin:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Contact with eyes:

Wash immediately and thoroughly with running water, keeping eyelids raised, for at least 10 minutes. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief. OBTAIN A MEDICAL EXAMINATION.

Do not use eyewash or ointment of any kind (before obtaining an examination or advice from an eye specialist).

Swallowing:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

A suspension of activated charcoal in water, or liquid paraffin may be administered.

Inhalation:

Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION.

5. FIRE-FIGHTING MEASURES

Recommended extinguishers:

Water, CO₂, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishers not to be used:

None in particular.

Risks arising from combustion:

Avoid inhaling the fumes which, at high temperatures, may contain toxic substances such as CO_x, NO_x, HCl, HF and HCN.

Protective equipment:

Use protection for the respiratory tract. Self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Measures for personal safety:

Use a mask, gloves and protective clothing.

Environmental measures:

Limit leakages with earth or sand.

If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

Cleaning methods:

Rapidly recover the product. To do so, wear a mask and protective clothing.

If the product is in a liquid form, stop it from entering the drainage system.

Recover the product for re-use if possible, or for elimination. The product might, where appropriate, be absorbed by inert material.

After the product has been recovered, rinse the area and materials involved with water.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact and inhalation of the vapours. See, too, paragraph 8 below.

Do not eat or drink while working.

Do not smoke while working.

Incompatible materials:

None in particular.

Storage conditions:

Instructions as regards storage premises:

Adequately ventilated premises.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Precautionary measures:

Give adequate ventilation to the premises where the product is stored and/or handled.

Respiratory protection:

Use adequate protective respiratory equipment, e.g. CEN/FFP-2(S) or CEN/FFP-3(S).

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Eye protection:

Use close fitting safety goggles and/or visor conforming to BS 2092 GRADE 1).

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Exposure limit(s) (ACGIH):
1,2,4-trimethylbenzene
VLE 8h: 100 mg/m³ - 20 ppm

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour:	Light yellow liquid
Odour:	aromatic
pH:	Approx. 5.9 at 25 °C (1% in water)
Melting point:	< 10 °C
Flash point:	64 °C
Explosive properties:	Not explosive
Vapour pressure:	0.18 mPa at 20 °C (ref. to tetra conazole)
Relative density:	0.94 kg/l
Solubility in water:	It gives emulsions
Lipid solubility:	Soluble in the most common organic solvents
Partition c. (n-octanol/H ₂ O):	Log P = 3.56 (ref. to tetraconazole)

10. STABILITY AND REACTIVITY

Conditions to avoid:
Stable under normal conditions.

Substances to avoid:
None in particular.

Hazardous decomposition products:
None.

11. TOXICOLOGICAL INFORMATION

Data referred to DOMARK 100 EC:
Acute toxicity:
LD50 (oral): 2370 mg/kg (rat)
LD50 (dermal): > 2000 mg/kg (rabbit)
LC50 (4h) (inhalation): > 5.22 mg/l air (rat)

Irritating power
Skin: moderately irritant.
Eyes: irritant.

Sensitization
Not sensitizing agent (Guinea Pig)

Data referred to tetraconazole:

Carcinogenicity:
No carcinogenic effects.
(Ref. Draft Summary Record Commission Working Group on the Classif. And Labelling of New Notified Substances, 28th May 2004).

Mutagenic effects:
No mutagenic effect

Teratogenic effects:
No teratogenic effect

12. ECOLOGICAL INFORMATION

Adopt good working practices, so that the product is not released into the environment.

Data referred to DOMARK 100 EC:
Fish-

Rainbow trout, LC50 (96h): 3.8 mg/l
Daphnia-
Daphnia magna, LC50 (48h): 1.1 mg/l
Algae-
Ankistrodesmus bibrainus, EC50 (72h): 2.2 mg/l

List of substances dangerous for the environment and corresponding classification:

10% - 12.5% (+/-) 2-(2,4-dichlorophenyl)-3-(1 H -1,2,4-triazol-1-yl)propyl-1,1,2,2-tetrafluoroethylether;
tetraconazole.

N.67/548/CEE: 613-174-00-3 CAS: 112281-77-3 EINECS: 407-760-7

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3% - 5% 1,2,4-trimethylbenzene

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0.5% - 1% naphthalene

N.67/548/CEE: 601-052-00-2 CAS: 91-20-3 EINECS: 202-049-5

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

ADR-UN number: 3082
ADR-Class: 9
ADR-Upper number: 90
ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(tetraconazole)
ADR-Label: 9
ADR-Packing Group: III
Rail (RID): 9
Marine pollutant: Marine pollutant
IMDG-Un number: 3082
IMDG-Class: 9
IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(tetraconazole)
IMDG-Packing group: III
IMDG-Label: 9 + Marine Pollutant
IMDG-EMS: F-A, S-F

15. REGULATORY INFORMATION

Council Directive 67/548/EEC (Classification, packaging and labelling of dangerous substances) and subsequent amendments. Commission Directive 1999/45/CE (Classification, packaging and labelling of dangerous preparation) and subsequent amendments. Commission Directive 2001/58/CE (Safety data sheets). Commission Directive 98/24/CE (Protection of the health and safety of workers from the risk related to chemical agent). Commission Directive 2000/39/CE (Occupational exposure limit values). Draft Summary Record Commission Working Group on the Classif. And Labelling of New Notified Substances, 28th May 2004

Symbols:

Xn Harmful

N Dangerous for the environment

R Phrases:

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65 Harmful: may cause lung damage if swallowed.

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

S Phrases:

- S2 Keep out of reach of children.
- S13 Keep away from food, drink and animal feedingstuffs.
- S20/21 When using do not eat, drink or smoke.
- 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 Wear suitable protective clothing and gloves.
- S46 If swallowed, seek medical advice immediately and show this container or label.
- S57 Use appropriate container to avoid environmental contamination.
- S61 Avoid release to the environment. Refer to special instructions/Safety data sheets.
- S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

Contents:

- Tetraconazole
- Kerosine - unspecified

Where applicable, refer to the following regulatory provisions :
Directive 2003/105/CE ('Activities linked to risks of serious accidents').

16. OTHER INFORMATION

Text of R phrases referred to under heading 2:

- R65 Harmful: may cause lung damage if swallowed.
- R20/22 Harmful by inhalation and if swallowed.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R10 Flammable.
- R20 Harmful by inhalation.
- R36/37/38 Irritating to eyes, respiratory system and skin.
- R22 Harmful if swallowed.
- R36 Irritating to eyes.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R40 Limited evidence of a carcinogenic effect.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Main bibliographic 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 contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.
