

EMINENT STAR

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier :

Trade name : **EMINENT STAR**

1.2 Relevant identified uses of the substance/mixture : Agricultural fungicide

1.3 Details of the supplier of the safety data sheet

Company: ISAGRO S.p.A. Via Caldera 21, 20153, Milan, Italy

Emergency telephone number of the company and/or of an authorised advisory centre:

Tel.: 02 40 901 276 msds@isagro.it

1.4 Emergency telephone number

QSE Department (office local time: 9.00 – 18.00): Phone no. ++39 02 40901276

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EU) 1272/2008

Properties:

Xn Harmful

Xi Irritant

N Dangerous for the environment

R Phrases:

R20 Harmful by inhalation.

R36/38 Irritating to eyes and skin.

R40 Limited evidence of a carcinogenic effect.

R43 May cause sensitization by skin contact.

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

2.2. Label elements .

Labelling regulation (EC) No.1272/2008

Symbols:



Signal Word

Warning

Hazard statements:

H332 Harmful if inhaled.
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand
P102 Keep out of reach of children
P103 Read label before use
P271 Use only outdoors or in a well-ventilated area



Additional Information

EUH401 To avoid risks to human health and the environment comply with the instructions for use

Hazardous components which must be listed on the label : tetraconazole, chlorothalonil

EMINENT STAR

Labelling : EU directives 67/548/EEC or 1999/45/EC

	
Symbols	N Dangerous for the environment Irritant
R phrases	R20 Harmful by inhalation R36/38 Irritant to eyes and skin R40 Limited evidence of a carcinogenic effect R43 May cause sensitisation by skin contact R50/53 very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment
S phrases	Use personal protective equipment as required. 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 S35 This material and its container must be disposed of in a safe way S37 Use appropriate containment to avoid environmental contamination

Other hazards : none known

SECTION 3: Composition/information on ingredients

3.2. Mixtures Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and related classification:

20% - 25% chlorothalonil (ISO); tetrachloroisophthalonitrile	Index number: 608-014-00-4, CAS: 1897-45-6, EC: 217-588-1 Carc. Cat. 3,T+,Xi,N; R26-37-40-41-43-50/53 3.6/2 Carc. 2 H351 3.8/3 STOT SE 3 H335 3.3/1 Eye Dam. 1 H318 3.4.2/1-1A-1B Skin Sens. 1, 1A, 1B H317 4.1/A1 Aquatic Acute 1 H400 4.1/C1 Aquatic Chronic 1 H410 3.1/2/Inhal Acute Tox. 2 H330
5% - 7% tetraconazole (ISO); (±) 2-(2,4-dichlorophenyl)-3-(1H-1,2,4-triazol-1-yl)propyl-1,1,2,2-tetrafluoroethylether	N.67/548/CEE: 613-174-00-3 CAS: 112281-77-3 EC: 407-760-6 Xn,N; R20/22-51/53 4.1/C2 Aquatic Chronic 2 H411 3.1/4/Oral Acute Tox. 4 H302 3.1/4/Inhal Acute Tox. 4 H332
0.1% - 0.25% propan-2-ol; isopropyl alcohol; isopropanol	Index number: 603-117-00-0, CAS: 67-63-0, EC: 200-661-7 F,Xi; R11-36-67 2.6/2 Flam. Liq. 2 H225 3.3/2 Eye Irrit. 2 H319 3.8/3 STOT SE 3 H336

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact: 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. Wash thoroughly the body (shower or bath). Remove contaminated clothing immediately and dispose of safely. After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Protect uninjured eye.

In case of Ingestion: Do NOT induce vomiting. In case of Inhalation: If breathing is irregular or stopped, administer artificial respiration.

In case of inhalation, consult a doctor immediately and show him packing or label.

4.2. Most important symptoms and effects, both acute and delayed : None

EMINENT STAR

4.3. Indication of any immediate medical attention and special treatment needed. In case of accident or feeling ill, seek medical advice immediately (show directions for use or safety data sheet if possible). Treatment: None

SECTION 5: Firefighting measures

5.1. Extinguishing media : Suitable extinguishing media: Water. Carbon dioxide (CO₂).
Extinguishing media which must not be used for safety reasons: None in particular.

5.2. Special hazards arising from the substance or mixture : Do not inhale explosion and combustion gases. Burning produces heavy smoke.

5.3. Advice for firefighters : Use suitable breathing apparatus. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures :

Wear personal protection equipment. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation. Use appropriate respiratory protection. See protective measures under point 7 and 8.

6.2. Environmental precautions : Do not allow spillage to enter soil/subsoil, surface water or drains. Retain contaminated water and dispose safely. In case of entry into watercourses or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up : Contain spillage. Collect with non-combustible absorbent material eg sand, earth, vermiculite. Place in suitable container for disposal according to local /national regulations.

6.4. Reference to other sections : See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling : Avoid contact with skin and eyes, inhalation of vapour and mists. Do not use empty containers for any other purpose. Do not eat, drink or smoke while working. Contaminated clothing should be changed before entering eating areas. For personal protection see section 8.

7.2. Conditions for safe storage, including any incompatibilities : Keep away from food, drink and animal feeding stuffs. Keep containers tightly closed in a dry cool and well ventilated place. Keep out of reach of children.

7.3. Specific end use(s) : Registered crop protection product. For safe and proper use refer to the product label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

propan-2-ol; isopropyl alcohol; isopropanol - CAS: 67-63-0

TLV TWA - 200 ppm, A4 - 491,53 mg/m³, A4

TLV STEL - 400 ppm, A4 - 983,07 mg/m³, A4

DNEL Exposure Limit Values N.A.

PNEC Exposure Limit Values N.A.

8.2 Exposure control

Refer to COSHH assessment (Control of Substances Hazardous to Health (Amendment) Regulations 2004). Engineering controls should be used in preference to personal protective equipment wherever practicable.

Eye protection: Use close fitting safety goggles

Protection for skin: Use suitable protective clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

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

Respiratory protection: Use adequate protective respiratory equipment.

Thermal Hazards: None

EMINENT STAR

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance and colour:	Whitish liquid
Odour:	Slightly aromatic
Odour threshold:	Not defined
pH:	6.5
Melting point / freezing point:	-7 °C approx.
Initial boiling point and boiling range:	Not relevant
Solid/gas flammability:	Not relevant
Upper/lower flammability or explosive limits:	Not relevant
Vapour density:	Not relevant
Flash point:	Not relevant
Evaporation rate:	Not relevant
Vapour pressure:	Not relevant
Relative density:	Not relevant
Solubility in water:	189.8 mg/l at 20 °C (referred to tetraconazole) It gives dispersion (referred to chlorothalonil)
Lipid solubility:	Not relevant
Partition coefficient (n-octanol/water):	Not relevant Log P = 3.56 (referred to Tetraconazole) Log P = 2.94 (referred to Chlorothalonil)
Auto-ignition temperature:	Not relevant
Decomposition temperature:	Not relevant
Viscosity:	Not relevant
Explosive properties:	Not relevant
Oxidizing properties:	Not relevant

9.2 Other information

Miscibility:	Not relevant
Fat Solubility:	Not relevant
Conductivity:	Not relevant
Substance Groups relevant Properties	Not relevant

SECTION 10: Stability and reactivity

10.1. Reactivity : Stable under normal conditions

10.2. Chemical stability : Stable under normal conditions

10.3. Possibility of hazardous reactions : May generate flammable gases on contact with mineral acids, nitrides, and powerful reducing agents. May generate toxic gases on contact with mineral acids, organic peroxides and hydroperoxides, and powerful oxidising agents.
May catch fire on contact with oxidising mineral acids, and powerful oxidising agents.

10.4. Conditions to avoid : Stable under normal conditions.

10.5. Incompatible materials : None in particular.

10.6. Hazardous decomposition products : None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological information of the mixture: N.A.

Toxicological information of the main substances found in the mixture: Eminent Star

Acute toxicity: LD50 (oral): > 5000 mg/kg (rat). LD50 (dermal): > 10000 mg/kg (rabbit)

LC50 (4h) (inhalation): 0.6 mg/l air (4 h) (rat)

Data referred to : tetraconazole: Irritant : Skin: Not irritating (rabbit) (OECD 404) Eyes: Not irritating (rabbit) (OECD 405) Carcinogenic effects (OECD 451): No carcinogenic effect. Mutagenic effect (OECD 474): No mutagenic effect in tests (in vivo and in vitro). Teratogenic effects (EPA-TSCA 793400): No teratogenic effects. Reproduction (OECD 416): No reproduction toxicity

EMINENT STAR

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

- a) acute toxicity; b) skin corrosion/irritation; c) serious eye damage/irritation; d) respiratory or skin sensitisation; e) germ cell mutagenicity; f) carcinogenicity; g) reproductive toxicity;
- h) STOT-single exposure; i) STOT-repeated exposure; j) aspiration hazard.

SECTION 12: Ecological Information

12.1 Toxicity : Data referred to the mixture, Eminent Star: Acute toxicity: Fish- Rainbow trout, LC50 (96h): 0.047 mg/l Daphnia- Daphnia magna, LC50 (48h): 0.070 mg/l Algae- Selenastrum Capricornutum, EC50 (120h): 0.21 mg/l

12.2 Persistence and degradability : Data referred to Tetraconazole: Water-sediment study: DT50 (whole system) = 310 – 372 g. DT50 (soil): 111.8 gg. (geometric mean on studies 4 soils). Tetraconazole is stable to hydrolysis and is not expected to degrade by photolysis. Tetraconazole is not readily degradable. Data referred to Chlorothalonil: DT50 in soil: approx. 7 days. Not persistent in soil

12.3 Bioaccumulative potential : Data referred to Tetraconazole: BCF = 35.7 (whole fish)
Data referred to Chlorothalonil: Low bioaccumulative potential

12.4 Mobility in soil: Data referred to Tetraconazole: Mobility: Koc from 531 to 1922 mL/g (4 soils)
Tetraconazole has low mobility in acid soils. Data referred to Chlorothalonil: Low mobility in soil

12.5 Results of PBT and vPvB assessment : No PBT and/or vPvB substances in the preparation

12.6 Other adverse effects : None

SECTION 13: Disposal considerations

13.1. Waste treatment methods Recycle if possible. If not practical, dispose of in compliance with local and national regulations. Do not re-use empty containers.

SECTION 14: Transport information

14.1. UN number ADR-UN number: 3082 IMDG-Un number: 3082

14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(tetraconazole and chlorothalonil)

IMDG-Technical name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(tetraconazole and chlorothalonil)

14.3. Transport hazard class(es)

ADR-Class: 9 ADR-Label: 9 ADR Hazard identification number: 90 IMDG-Class: 9

14.4. Packing group : Packing Group: III IMDG-Packing group: III

14.5. Environmental hazards : Marine pollutant


14.6 Special Precautions for User: Tunnel restriction code: 3/E

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code : Not requested

EMINENT STAR

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Symbols:	
	
Signal Word	Warning
Hazard statements:	H332 Harmful if inhaled. H317 May cause an allergic skin reaction. H315 Causes skin irritation. H319 Causes serious eye irritation. H351 Suspected of causing cancer. H335 May cause respiratory irritation. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements:	P101 If medical advice is needed, have product container or label at hand P102 Keep out of reach of children P103 Read label before use P271 Use only outdoors or in a well-ventilated area
Additional Information	EUH401 To avoid risks to human health and the environment comply with the instructions for use

Hazardous components which must be listed on the label : tetraconazole, chlorothalonil

Chemical safety assessment : Not requested

SECTION 16: Other information

R-phrases in section 3:

R11 Highly flammable. R20/22 Harmful by inhalation and if swallowed.

R26 Very toxic by inhalation. R36 Irritating to eyes.

R37 Irritating to respiratory system. R40 Limited evidence of a carcinogenic effect.

R41 Risk of serious damage to eyes. R43 May cause sensitization by skin contact.

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

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

R67 Vapours may cause drowsiness and dizziness.

H-statements in section 3:

H351 Suspected of causing cancer. H335 May cause respiratory irritation.

H318 Causes serious eye damage. H317 May cause an allergic skin reaction.

H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

H330 Fatal if inhaled. H411 Toxic to aquatic life with long lasting effects.

H302 Harmful if swallowed. H332 Harmful if inhaled.

H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU.

This document was prepared by a competent person who has received appropriate training.