ISAGRO USA, INC

Safety Data Sheet for use in USA dated November 19, 2008

1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Trade name: **METTLE 125 ME Fungicide**
Trade code: 200106
EPA Reg. No.: 80289-8
Product type and use: Fungicide
Company: Isagro USA- 430 Davis Dr., Suite 240, Morrisville NC 27560
Subsidiary of: Isagro S.p.A. – Via Caldera, 21 – 20153 Milano, Italy
Emergency telephone numbers:
Isagro USA (919) 321-5200 / CHEMTREC (800) 421-9300

2. COMPOSITION/INFORMATION ON ACTIVE INGREDIENTS

11.6% Tetraconazole
CAS 112281-77-3

3. HAZARDS IDENTIFICATION

Harmful if swallowed or absorbed through the skin. Causes moderate eye irritation. Harmful to aquatic organism. May cause long-term adverse effects in the aquatic environment

4. FIRST AID MEASURES

IF IN EYES
- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

IF SWALLOWED
- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if unable to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person

IF INHALED
- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

5. FIRE-FIGHTING MEASURES

Recommended extinguishers:
METTLE 125 ME Fungicide is not flammable or exposive. Use 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 HF, HCl and HCN.
Protective equipment and special fire fighting procedures:
Wear self-contained breathing apparatus and protective clothing. Fight fire upwind. Avoid heavy base streams. Dike area to prevent water runoff. Vapor and fumes from fire are hazardous. Evacuate people downwind from fire

6. ACCIDENTAL RELEASE MEASURES

Measures for personal safety:
Use gloves and protective eyewear and clothing (see Section 8).
Environmental measures:
Control spills with soil or sand. If the product has entered a waterway and/or drainage system, or has contaminated the ground and/or vegetation, notify the competent authorities.
Cleaning methods:
Rapidly recover the product and prevent it from entering into drainage systems, if possible. In so doing wear protective clothing (see Section 8). The product might, where appropriate, be absorbed by inert material. After the product has been recovered, rinse the area and contaminated materials involved with water. Dispose unrecoverable product, absorbant material and/or rinsate solids as hazardous substance (see Section 13).

7. HANDLING AND STORAGE

Handling precautions:
Do not eat, drink or smoke while working.
Incompatible materials:
Avoid contact with oxidizing agents and alkaline material.
Storage conditions:
Store in a cool, dry place
Instructions regarding 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:
Not needed for normal use.
Protection for hands:
Wear chemical resistant gloves made of water proof material
Eye protection:
Use protective eyewear.
Protection for skin:
Wear long sleeved skirt and long pants.

Exposure limit(s) (ACGIH):
None established for METTLE 125 ME Fungicide

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour:	Liquid, Yellowish
Odour:	Negligible
pH:	approximately 6.3(suspension 1% in water)
Flash point:	> 98ºC(cc)
Explosive properties:	Not explosive
Specific Gravity:	approximately 1.08 @ 20ºC
Solubility in water:	Emulsion- 189.8 mg/l @ 20ºC
Partition c(n-octanol/H_2O):	Log P= 3.56(tetraconazole)
Vapour pressure:	17mm Hg @ 20ºC(tetraconazole)
Boiling Point:	approximately 100ºC

10. STABILITY AND REACTIVITY

Conditions to avoid:
Stable under normal conditions.
Substances to avoid:
Strong Oxidizing agents and alkaline material.
Hazardous decomposition products:

It may generate flammable gases on contact with caustic substances and nitrides
It may generate toxic gases on contact with mineral acids, aliphatic and aromatic amines, and powerful oxidizing agents.
It may catch fire on contact with oxidizing mineral acids, and elementary metals(sheet and bars).

11. TOXICOLOGICAL INFORMATION

Acute toxicity:
LD50 (oral): >5000mg/kg b.w. (rat, male); > 4090 mg/kg b.w.(rat, female)
LD50 (dermal): > 2000 mg/kg b.w. (rat)
LC50 (4h) (inhalation): > 3.17 mg/l(rat, female)
Irritation:
Skin: mild irritant (rabbit).
Eyes: mild irritant, conjunctival irritation persisting approximately 1 hour (rabbit).
Sensitization:
Not sensitizing agent (guinea pig).

Subchronic and Chronic Data (referred to technical tetraconazole):
In subchronic, chronic, and reproduction studies on rats, and carcinogenicity studies on mice, and a chronic study on dogs, increase liver weight, increases in serum enzymes, or gross and microscopic liver pathology were noted, providing evidence of liver toxicity upon repeated exposure to very high doses of tetraconazole. Dietary administration of tetraconazole to mice throughout their lifetime at very high doses resulted in an increased incidence of neoplastic effects in liver and the formation of tumors. The significance of the neoplastic effect in mouse liver is unknown with respect to potential human exposure.

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12. ECOLOGICAL INFORMATION

List of substances dangerous for the environment and corresponding classification:

Data referred to technical tetraconazole:
Bluegill Sunfish, LC50 (96h): 4.3 mg/l
Rainbow trout, LC50(96h): 4.8 mg/l
Freshwater invertibrate (*Daphnia magna*): LC50 (48h): 3.0 mg/l
Mobility: KOC from 351 to 1922
Bioaccumulation: BCF=35.7(whole fish)

13. DISPOSAL CONSIDERATIONS

Recover if possible. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

DOT-UN Number:	N/A
DOT-Class:	N/A
DOT-Shipping Name:	N/A (pesticide-non regulated)
DOT-Label/Placard:	N/A
DOT-Packing Group:	N/A
DOT-Marine Pollutant:	Yes [regulated only for bulk packaging and vessel (i.e. barge shipments). In these cases follow IMDG information below for appropriate labeling and classification]
ADR/RID-UN Number:	3082
ADR/RID-Class:	9
ADR/RID-Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S.
ADR/RID-Label/Placard	9
ADR/RID-Packing Group:	III
AD/RID-Marine Pollutant:	Yes (add description and label for vessel shipment only)
IMDG-UN Number:	3082
IMDG-Class:	9
IMDG-Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (11.6% tetraconazole)

IMDG-Label/Placard:	9 + Marine Pollutant
IMDG-Packing Group:	III
IMDG-Marine Pollutant:	Yes (add to shipping paper and include % of ingredient)
IMDG-EmS:	F-A, S-F

15. REGULATORY INFORMATION

USEPA Registration Number 80289- 8

16. OTHER INFORMATION

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 precding release for use in the US.