Mettle 125 ME Fungicide

Safety Data Sheet

according to Canada Hazardous Products Regulation (HPR)

Date of issue: 06/09/2015 Revision date: 12/07/2015 Version: 1.1

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

1.1. Product identifier

Product form : Mixture

Product name : Mettle 125 ME Fungicide

Other means of identification : PCPA Reg. No. 30673

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Fungicide.

1.3. Details of the supplier of the safety data sheet

Arysta LifeScience North America LLC
15401 Weston Parkway, Suite 150
Cary, NC 27513 - USA

Arysta LifeScience
400 Michener Road, Unit 2
Guelph, Ontario
N1K 1E4

1.4. Emergency telephone number

Emergency number : Exposure Calls (PROSAR): +1-866-303-6952 or +1-651-603-3432 (international)
Spill Calls (CHEMTREC) (Contract # CCN1779): +1-800-424-9300 or +1-703-527-3887 (international)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS classification

Acute Tox. 4 (Inhalation) H332

Full text of H-statements: see section 16

2.2. Label elements

GHS labelling

Hazard pictograms (GHS) :

GHS07

Signal word (GHS) : Warning

Hazard statements (GHS) : H332 - Harmful if inhaled

Precautionary statements (GHS) : P261 - Avoid breathing mist, vapours
P271 - Use only outdoors or in a well-ventilated area
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P312 - Call a doctor if you feel unwell

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	% (w/w)	GHS classification
tetraconazole (ISO)	(CAS No) 112281-77-3	11.6	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Aquatic Chronic 2, H411

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person.

First-aid measures after inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
First-aid measures after skin contact	:	Gently wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.
First-aid measures after eye contact	:	Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart.
First-aid measures after ingestion	:	Sip water. Do NOT induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	:	Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.
Symptoms/injuries after skin contact	:	May cause slight irritation.
Symptoms/injuries after eye contact	:	May cause slight irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	:	None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	No specific fire or explosion hazard.
Reactivity	:	No dangerous reactions known.

5.3. Advice for firefighters

Firefighting instructions	:	Do not allow run-off from fire fighting to enter drains or water courses.
Protection during firefighting	:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

Protective equipment	:	Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.
Emergency procedures	:	Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment	:	Chemical goggles or safety glasses. Wear suitable protective clothing and gloves.
Emergency procedures	:	Ventilate area. Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Prevent dispersion.

6.3. Methods and material for containment and cleaning up

For containment	:	Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up	:	Absorb and/or contain spill with inert material, then place in suitable container. Following recovery, flush area with water. Clean surface thoroughly to remove residual contamination.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Avoid all eye and skin contact and do not breathe vapour and mist.
Hygiene measures	:	Always wash your hands immediately after handling this product, and once again before leaving the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Do not store near food, foodstuffs, drugs, or potable water supplies.
Incompatible products	:	Oxidizer. Alkali.
Prohibitions on mixed storage	:	Incompatible materials.

Storage area : Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

Fungicide.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Mettle 125 ME Fungicide	
ACGIH	Not applicable
OSHA	Not applicable

tetraconazole (ISO) (112281-77-3)	
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls

Appropriate engineering controls : Avoid splashing. Use only outdoors or in a well-ventilated area.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Use rubber gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Long sleeved protective clothing.

Respiratory protection : None under normal use. In case of inadequate ventilation wear respiratory protection. Wear appropriate mask.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Yellow

Odour : Odourless

Odour threshold : No data available

pH : 6.3 (1% suspension in water)

Melting point : No data available

Freezing point : No data available

Boiling point : ~ 100 °C

Flash point : > 98 °C (CC)

Relative evaporation rate (butyl acetate=1) : No data available

Flammability (solid, gas) : No data available

Explosive limits : No data available

Explosive properties : Product is not explosive.

Oxidising properties : No data available

Vapour pressure : No data available

Relative density : 1.08 @ 20 °C

Relative vapour density at 20 °C : No data available

Solubility : Water: 189.8 mg/l @ 20 °C

Log Pow : No data available

Log Kow : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity : No data available

Viscosity, kinematic : No data available

Viscosity, dynamic : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

Alkali. Oxidizer.

10.6. Hazardous decomposition products

On contact with acid: Toxic gases. On contact with a strong base releases : May release flammable gases. on contact with a metal surface. May readily catch fire.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact

Acute toxicity : Inhalation: Harmful if inhaled.

Mettle 125 ME Fungicide	
LD50 oral rat	> 4090 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 3.17 mg/l/4h
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h

tetraconazole (ISO) (112281-77-3)	
ATE US (oral)	500.000 mg/kg bodyweight
ATE US (gases)	4500.000 ppmv/4h
ATE US (vapours)	11.000 mg/l/4h
ATE US (dust,mist)	1.500 mg/l/4h

Skin corrosion/irritation : Not classified
(Slightly irritating to skin)

Serious eye damage/irritation : Not classified
(Slightly irritant but not relevant for classification)

Respiratory or skin sensitisation : Not classified
(No sensitizing reaction was observed for guinea pigs)

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified
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.

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified
Tetraconazole - liver and kidney are primary target organs

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/injuries after skin contact : May cause slight irritation.

Symptoms/injuries after eye contact : May cause slight irritation.

SECTION 12: Ecological information

12.1. Toxicity

tetraconazole (ISO) (112281-77-3)	
LC50 fish 1	4.8 mg/l 96 h Rainbow trout
EC50 Daphnia 1	3 mg/l 48 h
EC50 other aquatic organisms 1	0.31 mg/l Duckweed
LC50 fish 2	4.3 mg/l 96 h Bluegill

12.2. Persistence and degradability

tetraconazole (ISO) (112281-77-3)	
Persistence and degradability	Product persists.

12.3. Bioaccumulative potential

tetraconazole (ISO) (112281-77-3)	
Bioconcentration factor (BCF REACH)	35.7
Log Pow	3.56 @ 20 °C

12.4. Mobility in soil

Mettle 125 ME Fungicide	
Ecology - soil	Slightly mobile in soil.

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not considered a dangerous good for transport regulations

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

tetraconazole (ISO) (112281-77-3)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

tetraconazole (ISO) (112281-77-3)
Not listed on the Canadian DSL (Domestic Substances List) inventory. Not listed on the Canadian Non-Domestic Substances List (NDSL).

EU-Regulations

tetraconazole (ISO) (112281-77-3)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Inhalation) H332

Aquatic Chronic 3 H412
Full text of H-statements: see section 16

National regulations
No additional information available

15.3. US State regulations
No additional information available

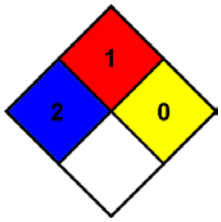
SECTION 16: Other information

Indication of changes	:	Product identifier
Revision date	:	12/07/2015
Data sources	:	European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database Canadian Centre for Occupational Health and Safety. Accessed at: http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition. National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition. NIOSH Occupational Health Guide for chemical Substances - Vol. II, September, 1978 United Nations Economic Commission for Europe: About the GHS. Accessed at http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html
Abbreviations and acronyms	:	ATE: Acute Toxicity Estimate. CAS (Chemical Abstracts Service) number. EC50: Environmental Concentration associated with a response by 50% of the test population. GHS: Globally Harmonized System (of Classification and Labeling of Chemicals). LD50: Lethal Dose for 50% of the test population.
Other information	:	None.

Full text of H-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
H302	Harmful if swallowed
H332	Harmful if inhaled
H411	Toxic to aquatic life with long lasting effects

NFPA health hazard	:	2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.
NFPA fire hazard	:	1 - Must be preheated before ignition can occur.
NFPA reactivity	:	0 - Normally stable, even under fire exposure conditions, and not reactive with water.



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