

## Safety Data Sheet

### TETRIS EW - Reg. No: L 8773 (Act No 36 of 1947)

Date of issue: 07/09/2011

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<b>1) PRODUCT AND COMPANY IDENTIFICATION</b>	
<b>Product name:</b>	<b>TETRIS EW</b>
<b>Other means of identification:</b>	Tetraconazole 100 g/L EW
<b>Recommended use:</b>	Fungicide
<b>Restrictions o use:</b>	Agriculture
<b>UN No:</b>	3082
<b>Distributed by:</b>	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
<b>Emergency Number:</b>	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 TYGERBERG:021 931 6129 RED CROSS 021 689 5227 GRIFFON POISON CENTRE: 082 446 8946.
<b>Chemical Name:</b>	10% - 12.5% (+/-) 2-(2,4-dichlorophenyl)-3-(1 H 1,2,4triazol-1-yl)propyl-1,1,2,2-tetrafluoroethylether Tetraconazole
<b>2) Hazards Identification:</b>	
<b>Product Classification:</b>	N; Xn; R22; R36/38; R51/53; R65; R66; R67 See full text phrases; see section 15
<b>Label Elements:</b>	Hazard symbols: N – Dangerous for the environment Xn – Harmful    <div style="text-align: right;">Signal</div> <p>words: Harmful</p>
<b>Health effects: eyes:</b>	Causes irritation that may last for over 24 hours
<b>Health effects: skin:</b>	Causes significant inflammation with erythema, scabs, and oedema. Repeated exposure to the product may cause skin dryness or cracking.
<b>Health effects: ingestion</b>	May cause lung damage if swallowed.
<b>Health effects: inhalation</b>	Vapours of the product may cause drowsiness and dizziness.

<b>3) Composition Details:</b>	
<b>COMPOSITION</b>	Tetraconazole
	100 g/L
<b>4) First Aid Measures:</b>	
<b>Inhalation:</b>  <b>Skin contact:</b>  <b>Eye contact:</b>  <b>Ingestion</b>  <b>Advice to physician:</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting. For advice, contact the National Poisons Centre Seek medical assistance immediately.</p> <p>A suspension of activated charcoal in water, or liquid paraffin may be administered.</p>
<b>5) Fire-Fighting Measures:</b>	
<b>Flash point:</b>  <b>Extinguishing Media:</b>  <b>Fire Fighting:</b>	<p>64 ° C</p> <p>Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.</p> <p>Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal.</p> <p>Avoid inhaling the fumes which, at high temperatures, may contain toxic substances such as COx, NOx, HCl, HF and HCN.</p> <p>Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid pollution of waterways.</p>
<b>Protective clothing:</b>	Use protection for the respiratory tract. Self-contained breathing apparatus.
<b>6) Accidental Release Measures:</b>	

<p><b>Personal precautions:</b></p> <p><b>Environmental precautions:</b></p> <p><b>Occupational spill:</b></p>	<p>Use a mask, gloves and protective clothing. For personal protection see Section 8.</p> <p>Do not contaminate waterways, drains and groundwater. If contamination of waterways, drains, rivers or lakes is unavoidable, warn the local authorities (Police and Department of Water/Environmental affairs) immediately.</p> <p>Wear protective clothing. Clear area of unprotected personnel.</p> <p>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.</p> <p>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.</p>
<p><b>7) Handling &amp; Storage:</b></p>	
<p><b>Handling:</b></p> <p><b>Storage:</b></p>	<p>Avoid contact and inhalation of the vapours. See, too, paragraph 8 below.</p> <p>Do not eat or drink while working. Do not smoke while working.</p> <p>Adequately ventilated premises. Keep out of reach of children. Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds.</p>
<p><b>8) Exposure Control / Personal Protection:</b></p>	
<p>It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.</p> <p><b>Occupational Exposure Limits:</b></p> <p><b>Engineering Controls:</b></p> <p><b><u>PERSONAL PROTECTIVE EQUIPMENT:</u></b></p> <p><b>Clothing:</b></p> <p><b>Gloves:</b></p> <p><b>Eye protection:</b></p> <p><b>Emergency eye wash:</b></p>	<p>(ACGIH):1,2,4-trimethylbenzene VLE 8h: 100 mg/m<sup>3</sup> - 20 ppm</p> <p>Give adequate ventilation to the premises where the product is stored and/or handled.</p> <p>Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance. e.g. cotton, rubber, PVC or viton.</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance, e.g. P.V.C., neoprene or rubber.</p> <p>The use of safety goggles is recommended. Use close fitting safety goggles and/or visor.</p> <p>Do not use eyewash or ointment of any kind (before obtaining an examination or advice from an eye specialist).</p>
<p><b>9) Physical &amp; Chemical Properties:</b></p>	
<p><b>Form:</b></p>	<p>Liquid</p>
<p><b>Colour:</b></p>	<p>Light yellow</p>
<p><b>Odour:</b></p>	<p>Aromatic</p>

<b>Solubility:</b>	Lipid solubility: Soluble in the most common organic solvents
<b>pH</b>	5.9 at 25 °C (1% in water)
<b>Odour threshold:</b> <b>Melting point / Freezing point</b> <b>Boiling point:</b> <b>Flash point:</b> <b>Evaporation rate:</b> <b>Flammability (solid, gas)</b> <b>Upper/ lower flammability or explosive limits:</b> <b>Vapour pressure:</b> <b>Vapour density:</b> <b>Relative density:</b> <b>Partition coefficient: n-octanol/water</b> <b>Auto-ignition temperature:</b> <b>Viscosity:</b>	Not available <10°C Not available 64°C Not available Not available Not available 0.18 mPa at 20°C (Ref. to tetraconazole) Not available 0.94 kg/L Log P = 3.56 (ref. to tetraconazole) Not available Not available
<b>10) Stability &amp; Reactivity:</b>	
<b>Stability:</b>  <b>Conditions to avoid:</b>  <b>Incompatible materials:</b>  <b>Hazardous decomposition product(s):</b>	Stable under normal conditions.  None known  None known  None in particular.
<b>11) Toxicological Information:</b>	
Data referred to TETRIS 100 EC: Oral : LD <sub>50</sub> 1248mg/kg male 1931 female rats. Inhalation : 4 h LD <sub>50</sub> : > 7.48 mg/l , rat Dermal LD <sub>50</sub> : LC <sub>50</sub> (4h) (inhalation): > 3.66 mg/l air (rat) Skin irritation : Non-irritating, rabbits Eye irritation : Non-irritating, rabbits Sensitization : Not sensitizing agent (Guinea Pig) Data referred to tetraconazole: No carcinogenic effects.	
<b>12) Ecological Information:</b>	
Bees : LD <sub>50</sub> (oral) >130 µg/bee. Birds : Acute LD <sub>50</sub> for mallard ducks 1421 mg/kg b.w. Dietary LC <sub>50</sub> (8 d) for bobwhite quail 4187 mg/kg. Fish : Rainbow trout, LC <sub>50</sub> (96h): 3.8 mg/l Daphnia: Daphnia magna, LC <sub>50</sub> (48h): 1.1 mg/l Other aquatic spp.: Algae-Ankistrodesmus bibraianus, EC <sub>50</sub> (72h): 2.2 mg/l  Persistence and accumulation: No accumulation in the field. No leaching occurs in standard soils. K <sub>oc</sub> 531–1922 (4 soil types).	
<b>13) Disposal Considerations:</b>	
<b>Waste Disposal :</b> Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. 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.  <b>Container Disposal :</b> If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Do not transport if this container is damaged or leaking.	
<b>14) Transportation Information:</b>	

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:

#### 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 feedstuffs.  
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

### 16. Other Information

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

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