


Safety Data Sheet

PRONTO 250 EC L7602 (Act No 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	PRONTO 250 EC
Other means of identification:	Difenoconazole 250 g/L EC
Chemical Name:	<i>cis,trans</i> -3-chloro-4-[4-methyl-2-(1 <i>H</i> -1,2,4-triazol-1-ylmethyl)-1,3-dioxolan-2-yl]phenyl 4-chlorophenyl ether (IUPAC)
Recommended use:	Fungicide
Restrictions on use:	Agriculture
UN No:	3082
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 TYGERBERG:021 931 6129 RED CROSS 021 689 5227
2) HAZARDS IDENTIFICATION	
Classification of the substance/mixture:	Acute Toxicity (Oral) Category 4 Acute Toxicity (Dermal) Category 4 Acute Toxicity (Inhalation) Category 3 Skin Irritation Category 3 Eye Damage Category 1 Aspiration Hazard Category 1 Aquatic Acute Category 1 Aquatic Chronic Category 1
Label Elements: Globally Harmonized System, EU (GHS):	<p>Pictograms:</p>  <p>Signal words: Danger</p> <p>Hazard Statements: H302: Harmful if swallowed. H304: May be fatal if swallowed and enters airways. H315: Causes skin irritation. H318: Causes serious eye damage. H319: Causes serious eye irritation. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long-lasting effects. H413: May cause long-lasting harmful effects to aquatic life.</p> <p>Precautionary Statements: P201: Obtain special instructions before use.</p>

According to Directive 67/548/EEC No. 1272/2008 [CLP]

P202: Do not handle until all safety precautions have been read and understood.
P260: Do not breathe vapours/mist/spray/fumes.
P262: Do not get in eyes, on skin, or on clothing.
P270: Do not eat, drink or smoke when using the product.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing, eye protection.
P321: Specific treatment (See First aid measures on this label)
P362+P364: Take off contaminated clothing and wash it before reuse.
P405: Store locked up.

Hazard Symbol(s):

Xn – dangerous to health
Xi - Irritant
N – dangerous for the environment

R-phrases(s):

R36/38: Irritating to eyes and skin.
R37/38: Irritating to respiratory system and skin.
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.

S-phrases(s):

S2: Keep out of reach of children.
S13: Keep away from food, drink and animal feeding stuffs.
S20/21: When using, do not eat drink or smoke.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S60: This material and its container must be disposed of as hazardous waste.
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.

3) COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances:

Not applicable

3.2 Mixtures:

Chemical name	Concentration	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)
Difenoconazole	250 g/L	119446-68-3	601-613-1	Acute Tox 4 (H302) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)
Calcium dodecylbenzenesulphonate	<2%	26264-06-2	247-557-8	Acute Tox 4 (H302) Skin Irrit 2 (H315) Eye Dam 1 (H318) Aquatic Chronic 4 (H413)
Hexanol	<10%	111-27-3	203-852-3	Acute Tox 4 (H302)
Solvent naphtha (petroleum), heavy aroma.	53%	64742-94-5	265-198-5	Asp Tox 1 (H304)

4) FIRST AID MEASURES

Description of First-Aid Measures:

Inhalation:

Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. **Seek medical assistance immediately.**

<p>Skin contact:</p> <p>Eye contact:</p> <p>Ingestion:</p> <p>Most important symptoms and effects, both acute and delayed:</p> <p>Indication of any immediate medical attention and special treatment needed:</p>	<p>Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with soap and water. Do not rub skin. Persons providing first aid must wear gloves to avoid self-contamination. Seek medical assistance if irritation occurs.</p> <p>Flush eyes with plenty of water for 15 minutes holding eyelids open if necessary. Seek medical assistance immediately.</p> <p>Repeatedly administer medicinal charcoal in a large quantity of water. Never give anything by mouth to an unconscious person. Do not induce vomiting. For advice, contact the National Poisons Centre. Seek medical assistance immediately.</p> <p>Aspiration may cause pulmonary oedema and pneumonitis.</p> <p>No specific antidote known. Treat symptomatically. Repeatedly administer medicinal charcoal in a large quantity of water.</p>
5) FIRE-FIGHTING MEASURES	
<p>Extinguishing Media:</p> <p>Unsuitable Extinguishing Media:</p> <p>Specific Hazards arising from the substance/mixture:</p> <p>Fire Fighting:</p> <p>Protective clothing:</p>	<p>Dry chemical, foam or standard foam. A fine water spray can be used for larger fires or for cooling unaffected stock.</p> <p>Do not use high volume water jet, due to contamination risk.</p> <p>Generates poisonous fumes containing carbon monoxide, nitrogen oxides and hydrochloric acid. Keep cool as heated vapours may explode.</p> <p>UNUSUAL FIRE OR EXPLOSION HAZARDS: Combustion products are toxic and/or irritant.</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. For small fire: If the area is heavily exposed to fire and if conditions permit, let the fire burn itself out since water may increase the area contaminated. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. 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. Do not scatter the material. Avoid pollution of waterways. Avoid accumulation of polluted run-off from the site. Contain fire control water for later disposal.</p> <p>Full protective clothing and self-contained breathing apparatus</p>
6) ACCIDENTAL RELEASE MEASURES	
<p>Personal precautions, protective equipment and emergency procedures:</p> <p>Environmental precautions:</p> <p>Methods and material for containment and cleaning up:</p>	<p>Avoid contact with skin and eyes. Do not breathe in spray or fumes. For personal protection see Section 8. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use.</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. Considered as Marine Pollutant.</p> <p>Wear protective clothing. Clear area of unprotected personnel. Contain and absorb liquid spills with an inert material such as sand, soil, diatomaceous earth etc., remove by scoop or vacuum. Use approved industrial vacuum cleaner for removal and place in specially marked waste containers. Wash area with water and detergent and absorb with further inert material. Heavily contaminated soil</p>

	layers should be removed and disposed of in an approved way. If spill does enter waterways contact the local authority. Spilled product cannot be re-used and must be disposed of by incineration or disposed of at a chemical waste disposal facility. If containers cannot be recycled, they should be disposed of together with the waste chemical.												
7) HANDLING & STORAGE													
Precautions for Safe Handling:	Avoid skin and eye contact and inhalation of spray mist. Avoid inhalation of fog and vapours. Keep away from heat and sources of ignition. Take precautionary measures against static discharges (transfer operations: check grounding). May form explosive vapour-air mixtures. Spills may be slippery and should be cleaned up immediately. APPROVED HANDLER: This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor. BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.												
Conditions for Safe Storage, including any incompatibilities:	Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Keep away from children or uninformed persons.												
8) EXPOSURE CONTROL / PERSONAL PROTECTION													
Appropriate Engineering Controls:	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. Containment and/or segregation is the most reliable technical protection measure if exposure cannot be limited. If airborne mists or vapours are generated, use local exhaust ventilation controls. Assess exposure and use any additional measures to keep airborne levels below any relevant exposure limit.												
Control Parameters: Occupational exposure limits:	<table><tr><td>Ingredient</td><td>CAS#</td><td>Limit</td><td>Basis</td></tr><tr><td>Difenoconazole</td><td>119446-68-3</td><td>5 mg/m³</td><td>TWA (Syngenta)</td></tr><tr><td>Solvent naphtha (petroleum), heavy aroma.</td><td>64742-94-5</td><td>8 ppm 50 mg/m³</td><td>TWA</td></tr></table>	Ingredient	CAS#	Limit	Basis	Difenoconazole	119446-68-3	5 mg/m ³	TWA (Syngenta)	Solvent naphtha (petroleum), heavy aroma.	64742-94-5	8 ppm 50 mg/m ³	TWA
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PERSONAL PROTECTIVE EQUIPMENT:													
Clothing:	Employee must wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance. Respiratory protection: Respirator with filter for organic vapour.												
Gloves:	Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance.												
Eye protection:	The use of safety goggles with side shields is recommended.												
Emergency eye wash:	Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.												
9) PHYSICAL & CHEMICAL PROPERTIES													
Form:	Liquid												
Colour:	Yellow to brown												
Odour:	Mild characteristic odour												
Solubility:	Emulsifies in water												
pH:	4 - 8												
Odour threshold:	Not available												
Melting point / Freezing point	82 – 83°C (Difenoconazole)												
Initial boiling point and boiling range	100.8°C/0.00003 (Difenoconazole)												
Flash point:	>60°C												
Evaporation rate:	Not available												

Flammability (solid, gas)	Not available
Upper/ lower flammability or explosive limits:	Not available
Vapour pressure:	3.3 x 10 ⁻⁵ mPa @ 25°C (Difenoconazole)
Vapour density:	Not available
Relative density:	0.99
Partition coefficient: n-octanol/water	Log K _{ow} 4.4 (Difenoconazole)
Auto-ignition temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
10) STABILITY & REACTIVITY	
Reactivity:	No hazardous reactions if stored and handled as indicated.
Chemical Stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Avoid very high or low temperatures. Protect from light, humidity and frost.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition product(s):	Heating can release vapours which can be ignited. Combustion products are toxic and/or irritant.
11) TOXICOLOGICAL INFORMATION	
Acute Toxicity: Difenoconazole	
Oral:	LD ₅₀ > 1400 mg/kg, rat.
Dermal:	LD ₅₀ > 2 000 mg/kg, rabbit.
Inhalation:	LC ₅₀ (4h) > 3.3 mg/L, rat.
Skin Corrosion/Irritation:	Mild irritant, rabbit.
Serious Eye Damage/Irritation:	May cause severe irritation and may cause damage.
Respiratory or Skin Sensitization:	Did not cause sensitization on laboratory animals
Germ Cell Mutagenicity:	Animal testing did not show any mutagenic effects.
Carcinogenicity:	No evidence of carcinogenicity in animal studies
Reproductive Toxicity:	No toxicity to reproduction
STOT-SE:	No data available.
STOT-RE:	No adverse effect has been observed in chronic toxicity tests
Aspiration Hazard:	May be fatal if swallowed and enters airways.
12) ECOLOGICAL INFORMATION	
Ecotoxicity: Difenoconazole	
Birds:	Oral LD ₅₀ (9-11d) Japanese quail: > 2000 mg/kg. Mallard ducks: > 2150 mg/kg.
Fish:	LC ₅₀ (96 hours) Rainbow trout: 0.81 mg/l. Bluegill sunfish: 1.2 mg/l.
Daphnia:	LC ₅₀ (48 hours) 0.77 mg/l.
Algae:	EC ₅₀ (72 h) for <i>Scenedesmus subspicatus</i> 0.032-1.2 mg/l.
Worms:	LC50 for earthworms > 610 mg/kg dry soil.
Bees:	LD50 (oral): > 18 µg/bee. LC50 (contact): > 100 µg/bee.
Persistence and Degradability:	Soil dissipation rate is slow and dependent on application rate; DT ₅₀ 3 mo–1 y. Hydrolytically stable at pH 5–9 (25 °C). Undergoes indirect photolysis in (sterile) natural water; DT ₅₀ 4.6 d. In standard lab. water-sediment systems (n=2) in the dark, rapid dissipation from the water, DT ₅₀ 1–3 d, but slow degradation in whole system, DT ₅₀ c. 8 mo.
Bio-accumulative Potential:	No evidence for accumulation.
Mobility in Soil:	Practically immobile in soil, strong adsorption to soil particles (mean adsorption coefficient normalised to organic carbon, K _{oc,ads} 4545 ml/g), low potential to leach below top soil layer.
13) DISPOSAL CONSIDERATIONS	
Waste Disposal:	In accordance with local and national regulations. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. 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 chemicals waste disposal facility.
Container Disposal:	Refer to the product label for instructions. Container Refilling and Disposal: If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.

	Do not transport if this container is damaged or leaking.
14) TRANSPORTATION INFORMATION	
Road Transport ADR / IRD:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole) Transport Hazard Class: 9 Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
Maritime Transport IMDG / IMO:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole) Transport Hazard Class: 9 Packaging group: III Labelling no: 9 Environmental Hazards: Marine Pollutant Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling. 
Air Transport ICAO / IATA:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Difenoconazole) Transport Hazard Class: 9 Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	No transport in bulk according to the IBC Code.
15) REGULATORY INFORMATION	
Safety, health and environmental regulations/legislation specific for the substance/mixture:	For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)
Chemical Safety Assessment:	Advice on product handling can be found in sections 7 and 8 of this safety data sheet.
16) OTHER INFORMATION	
<p>All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS 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.</p> <p>It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS.</p> <p>The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.</p> <p>MERIDIAN AGRITECH MAKES NO REPRESENTATION OR WARRANTIES, EITHER EXPRESSES OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MERIDIAN AGRITECH (PTY) LTD WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.</p> <p>Date of issue: 04/10/2010 Date of revision: 28/04/2016, 19/01/2021</p> <p>Abbreviations and acronyms:</p> <ol style="list-style-type: none"> 1. CAS number: Chemical Abstracts Service number. 2. CLP: Classification, Labelling, Packaging. 	

3. LD₅₀: Lethal Dose for 50% of the test population.
4. LC₅₀: Lethal Concentration for 50% of the test population.
5. DT₅₀: Half-life.
6. GHS: Globally Harmonised System (of Classification and Labelling of Chemicals).
7. STOT: Specific Target Organ Toxicity
8. SE: Single exposure
9. RE: Repeated exposure
10. TWA: Time-weighted Average

Literature References:

- GHS: www.ccohs.ca/oshanswers/chemicals/ghs.html
- ECHA: <https://echa.europa.eu/search-chemicals>