

Safety Data Sheet

PROVIDOR - Reg. No: L 10697 (Act No 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	Provider
Other means of identification:	Fenhexamid 500 SC
Chemical Name:	N-(2,3-dichloro-4-hydroxyphenyl)-1-methylcyclohexanecarboxamide (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 WESTERN CAPE POISONS TELEPHONE SERVICE 0861 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
2) HAZARDS IDENTIFICATION:	
Classification of the substance/mixture:	Acute Toxicity (Oral) Category 4 Aquatic Chronic Category 2
Label Elements: Globally Harmonized System, EU (GHS):	<p>Pictograms:</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>Signal word: Harmful</p> <p>Hazard Statements: H302: Harmful if swallowed. H411: Toxic to aquatic organisms with long-lasting effects.</p> <p>Precautionary Statements: P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P270: Do not eat, drink or smoke when using the product.</p>

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

P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P321: Specific treatment (See First aid measures on this label)
P405: Store locked up.

Hazard Symbols:

Xn: Harmful

N: Dangerous for the environment.

R-phrase(s):

R22: Harmful if swallowed.

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

S-phrase(s):

S2: Keep out of the reach of children.

S61: Avoid release to the environment. Refer to special instructions/Safety datasheets.

3) COMPOSITION / INFORMATION ON INGREDIENTS:

3.1 Substances:

Not applicable

3.2 Mixtures:

Chemical name	Composition	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)	Classification according to 67/548/EEC
Fenhexamid	500 g/L	126833-17-8	422-530-5	Aquatic Chronic 2 (H411)	N, R51 – R53; S61
Monoethylene Glycol	<10%	107-21-1	203-473-3	Acute Tox. 4 (H302)	Xn, R22; S2

4) FIRST AID MEASURES:

Description of First-Aid Measures:

Eye contact:

Immediately flush eyes with plenty of water. Remove contact lenses, if worn, and flush eyes with water for at least 15 minutes holding eyelids open. Seek medical assistance if irritation persists.

Skin contact:

Remove contaminated clothing and shoes and thoroughly wash body with soap and water. Seek medical attention if necessary. Wash contaminated clothing before re-use.

Ingestion:

If swallowed **DO NOT** induce vomiting unless advised to do so by a medical practitioner. Immediately rinse mouth with water. Never give anything per mouth to an unconscious person. Seek medical advice immediately.

Inhalation:

Remove victim to well ventilated area and loosen clothing around the neck. If symptoms persist, seek medical attention.

Most important symptoms and effects, acute and delayed:

See section 2. Other symptoms not known.

Indication of immediate medical attention and special treatment needed: Advice to physician


Symptomatic treatment and supportive therapy as indicated, no known specific antidote.

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>Water spray, foam, carbon dioxide (CO₂), dry powder, sand. Will not burn readily.</p> <p>Water jet, due to contamination risk.</p> <p>Fire may produce irritating or poisonous vapours, mists or other products of combustion. Avoid breathing fumes.</p> <p>Remove spectators from surrounding area. Use a recommended extinguishing agent. Fight fire from a maximum distance using unmanned hose holders or monitor nozzles. Dike extinguishing media with sand or earth for later disposal, do not allow to reach water systems. Dispose of debris and contaminated extinguishing water according to regulations.</p> <p>Water can be used to cool unaffected containers but must be contained for later disposal. Avoid pollution of waterways and ground water.</p> <p>Fire-fighters and others that may be exposed should wear 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>Do not breathe vapour or spray. Avoid contact with skin and eyes. Wear personal protective clothing according to operator safety during removal of spillage.</p> <p>Do not contaminate waterways, drains and groundwater. If contamination of waterways, drains, rivers or lakes is unavoidable, warn the local authorities immediately.</p> <p>Do not eat, drink or smoke during the clean-up process. Clear area of unprotected personnel. Wear protective gear as mentioned in section 8 below. Contain the spill and stop leak provided it is safe to do so. Soak up minor spills with suitable absorbent, non-combustible material such as sand, sawdust, silica gel, vermiculite, diatomaceous earth, etc. Shovel or sweep absorbed material and collect in a suitable container which can be labelled and sealed for disposal according to local regulations. Do not flush spilled material into drains or waterways. Should spilled product come into contact with water, dike water and dispose of together with spilled material. Clean contaminated areas thoroughly with water containing detergent and collect washings for disposal. For large spills, dike spill area and collect washings to avoid any contamination of surface and ground water, water supplies and drains. Deal with spillages immediately.</p> <p>Use absorbent material should be stored in labelled, sealable containers until these can be disposed of according to local regulations. Open burning or dumping of this material is prohibited.</p>
7) HANDLING & STORAGE:	
<p>Precautions for Safe Handling:</p> <p>Conditions for Safe Storage, including any incompatibilities:</p>	<p>May be harmful if swallowed. Do not breathe in fumes or spray. Avoid contact with skin and eyes. Suitable protective equipment should be used as a preventative measure during spraying and mixing: elbow length gloves, coverall, eye protection, footwear. Do not eat, drink, smoke or apply cosmetics while using. Before removing gloves, clean thoroughly with a non-abrasive soap and water. Wash hands thoroughly with soap and water after handling, and before eating, tobacco use, drinking, or using the toilet. Protective clothing should be washed before reuse.</p> <p>Store in original container tightly closed and in a dry, cool, well-ventilated area out of direct sunlight and away from foodstuffs, fertilisers and seeds. Keep away from children,</p>

	uninformed persons and animals. Do not contaminate other pesticides, fertilisers, water, food or feed by storage or disposal.
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.
Control Parameters: Occupational exposure limits:	NA
<u>PERSONAL PROTECTIVE EQUIPMENT:</u>	
Clothing:	Employee must wear appropriate protective (impervious) clothing buttoned to the wrist and neck as well as boots and a hat to prevent repeated, prolonged exposure.
Gloves:	Employee must wear appropriate chemical-resistant gloves, preferably elbow length PVC or nitrile gloves, to prevent contact with this substance.
Eye protection:	The use of safety goggles or full-face shield is recommended.
Respiratory protection:	Wear suitable respiratory equipment, especially during spraying, such as a face mask.
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:	
Appearance:	Brown liquid, suspension concentrate
Odour:	Characteristic
Solubility:	Suspends in water
pH:	6 - 9
Odour threshold:	No data available
Melting point / Freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas)	Not flammable
Upper/ lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	1.134 g/ml
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	No data available
10) STABILITY & REACTIVITY:	
Reactivity:	Stable under normal storage conditions.
Chemical stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Thermally and chemically stable.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Protect from extreme temperatures and direct sunlight.
Incompatible materials:	Oxidising agents.

Hazardous decomposition product(s):	Fires can release vapours that are irritating or toxic. On decomposition releases carbon monoxide, nitrogen oxides, hydrogen chloride, hydrogen cyanide.
11) TOXICOLOGICAL INFORMATION:	
Acute Toxicity:	
Oral:	LD50 > 4 000 mg/kg, rat.
Dermal:	LD50 > 7 800 mg/kg, rat.
Inhalation:	LC50 4h > 5 057 mg/L
Skin Corrosion/Irritation:	Not an irritant, rabbit.
Serious Eye Damage/Irritation:	Not an irritant, rabbit.
Respiratory or Skin Sensitization:	Not a skin sensitizer, guinea pigs.
Germ Cell Mutagenicity:	Non-mutagenic.
Carcinogenicity:	Non-carcinogenic.
Reproductive Toxicity:	Non-teratogenic.
STOT-SE:	No data available.
STOT-RE:	No data available.
Aspiration Hazard:	No data available.
12) ECOLOGICAL INFORMATION:	
Ecotoxicity:	
Birds:	LD50 bobwhite quail > 2000 mg/kg; Dietary LC50 bobwhite quail and mallard ducks > 5 000ppm of feed.
Fish:	LC50 (96h) rainbow trout 1.34 mg/L, bluegill sunfish 3.42 mg/L.
Daphnia:	EC50 (48h) > 18.8 mg/L.
Algae:	EC50 (120h) <i>Selenastrum capricornutum</i> 8.81 mg/L, EC50 (72h) <i>Scenedesmus subspicatus</i> > 26.1 mg/L.
Worms:	LC50 (2w) <i>Eisenia foetida</i> > 1000 mg/kg soil.
Bees:	Oral and contact LD50 > 200 µg/bee.
Persistence and Degradability:	DT50 in soil ≤1 d (4 soils, 20 °C). In sterile aquatic systems, fenhexamid was stable to hydrolysis. In natural water/sediment systems, fenhexamid degrades rapidly and completely, ultimately forming CO2; overall DT50 (calc.) was a few days
Bio-accumulative Potential:	Not available.
Mobility in Soil:	Studies and calculation show that the compound can be classified as having no, or only low, leaching potential; no problems of groundwater contamination will be expected.
13) DISPOSAL CONSIDERATIONS:	
Waste Disposal:	Waste should not be re-used. Do not contaminate rivers, dams, water sources, food or feed by disposal. Open dumping or burning of this pesticide is prohibited. Wastes resulting from the use of this product should be disposed of according to local regulations. Do not dispose of undiluted chemical on site.
Container Disposal:	Refer to the product label for instructions. Triple rinse empty containers before disposal. Add rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Empty containers should not be burnt; puncture and flatten containers and dispose at a licensed landfill site according to local regulations. Prevent contamination of water sources, food or feed by 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. If recycling, replace cap and take containers to the designated recycling point. If containers cannot be recycled, they should be disposed of together with the waste chemical according to local regulations.
14) TRANSPORTATION INFORMATION:	
Road Transport ADR / IRD:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (500 g/L Fenhexamid) Transport Hazard Class: 9 Miscellaneous Dangerous Goods 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 (500 g/L Fenhexamid) Transport Hazard Class: 9 Miscellaneous Dangerous Goods 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 (500 g/L Fenhexamid) Transport Hazard Class: 9 Miscellaneous Dangerous Goods 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: 11/10/2019</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).

Literature References:

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