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growing goodness



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REG NO: 2000/010819/07 VAT NO: 4120189206

## Safety Data Sheet

### PYROMITE - Reg. No: L 10696 (Act No 36 of 1947)

Date of issue: 22/07/2019

1) IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER	
Product name:	Pyromite
Other means of identification:	Fenpyroximate 50 g/L SC
Recommended use:	Crop protection product, insecticide.
UN number:	3082
Restrictions on use:	For use as an Agricultural remedy only.
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 (OR POISONS HELPLINE): 0861 555 777 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
Chemical Name:	tert-butyl (E)- $\alpha$ -(1,3-dimethyl-5-phenoxy-pyrazol-4-ylmethyleneamino-oxy)-p-toluate
2) Classification of the substance / mixture:	
Classification of the product:	<b>According to Directive 67/548/EEC or 1272/2008/EC</b> H301 H317 H330 H373 H400 H410  Pictograms Signal Word code GHS09 GHS06 Dgr  Full text of R and S-phrases: see section 15.

<p><b>Label elements</b></p>	<div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="text-align: center;">Environment      Skull and crossbones</p> <p>Xn N</p> <p><b>Signal word : Danger</b></p> <p><b>Hazard statements:</b></p> <p>H301 H317 H330 H373 H400 H410</p> <p><b>Precautionary statements:</b></p> <p>P102 P270 P284 P304 + P340 P314 P391 P501</p> <p><b>Other hazards:</b></p> <p>No other hazards known.</p>												
<p><b>Health effects: eyes:</b></p>	<p>Not an irritant</p>												
<p><b>Health effects: skin:</b></p>	<p>Not irritating, Grade 1 weak sensitiser</p>												
<p><b>Health effects: ingestion</b></p>	<p>May be harmful if swallowed</p>												
<p><b>Health effects: inhalation</b></p>	<p>Exposure through inhalation is unlikely.</p>												
<p><b>Health effects: Other</b></p>	<p>No data available</p>												
<p><b>3) COMPOSITION / INFORMATION ON INGREDIENTS:</b></p>													
<p>Mixture: Suspension Concentrate (SC) Fenpyroximate 50 g/L</p>													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Chemical name</th> <th style="width: 15%;">% composition</th> <th style="width: 15%;">CAS No.</th> <th style="width: 10%;">EC No.</th> <th style="width: 15%;">R and S-phrases</th> <th style="width: 20%;">Symbol(s)</th> </tr> </thead> <tbody> <tr> <td>Fenpyroximate</td> <td>5.0</td> <td>134098-61-6</td> <td>-</td> <td>-</td> <td>Xn N</td> </tr> </tbody> </table>		Chemical name	% composition	CAS No.	EC No.	R and S-phrases	Symbol(s)	Fenpyroximate	5.0	134098-61-6	-	-	Xn N
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<p>Full text of R and S-phrases: see section 15.</p>													

<b>4) First Aid Measures:</b>	
<b>Inhalation:</b>	Remove patient to fresh air. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance if symptoms appear and persist.
<b>Skin contact:</b>	Remove contaminated clothing and footwear. Wash affected areas with soap and water for at least 15 minutes. Do not rub skin. Wash clothing and shoes before re-use. Seek medical assistance if symptoms appear and persist..
<b>Eye contact:</b>	Remove any contact lenses and flush eyes with plenty of clean water or saline solution for at least 15 minutes holding eyelids. Seek medical assistance if symptoms appear and persist.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If swallowed do NOT induce vomiting unless directed to by medical personnel For advice, contact the National Poisons Centre. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical assistance immediately.
<b>Most important symptoms and effects, acute and delayed:</b>	None known
<b>Indication of immediate medical attention and special treatment needed: Advice to physician</b>	No antidote is known. Treat symptomatically and supportively as and when needed.
<b>5) Fire-Fighting Measures:</b>	
<b>Suitable extinguishing Media:</b>	Water, CO2, Foam, Chemical powders, according to the materials involved in the fire.
<b>Unsuitable extinguishing media:</b>	Do not use high volume water jet, due to contamination risk.
<b>Special hazards arising from the substance or mixture.</b>	Burning chemicals may produce carbon oxides and nitrogen oxides.
<b>Fire Fighting:</b>	Cool the containing vessels with water in order to prevent pressure build-up, autoignition or explosion. 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. If area is heavily exposed to fire and conditions permit, let fire burn itself out. 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.
<b>Protective clothing:</b>	Full protective clothing and self-contained breathing apparatus
<b>6) Accidental Release Measures:</b>	
<b>Personal precautions:</b>	Avoid contact with skin and eyes. Do not breathe in spray or fumes.  Prevent further leakage or spillage if safe to do so. Use an



	<p>any heat source and ignition point. Store in compliance with local regulations. Protect from excessive heat and cold.</p> <p>Keep away from children or uninformed persons.</p> <p>Keep away from direct sunlight.</p> <p>Suitable materials: HDPE (High Density Polyethylene)</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>Components with workplace control parameters</p> <p><b><u>PERSONAL PROTECTIVE EQUIPMENT:</u></b></p> <p><b>Clothing:</b></p> <p><b>Respiratory protection:</b></p> <p><b>Gloves:</b></p> <p><b>Eye protection:</b></p> <p><b>Emergency eye wash:</b></p> <p><b>General protective measures:</b></p>	<p>Consult supplier to confirm that the equipment is suitable.</p> <p>Select skin and body protection based on the physical job requirements.</p> <p>Use clothing that provides comprehensive protection to the skin e.g. cotton, rubber, PVC or viton.</p> <p>For periods of prolonged exposure, wear a respirator.</p> <p>Wear chemical resistant gloves when handling the concentrate.</p> <p>Wear a face shield or tight-fitting safety goggles.</p> <p>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.</p> <p>The use of technical measures should always take preference over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice. Personal protective equipment should be certified to appropriate standards.</p>
<p><b>9) Physical &amp; Chemical Properties:</b></p>	
<p><b>Form:</b></p> <p><b>Colour:</b></p> <p><b>Odour:</b></p> <p><b>Odour threshold</b></p> <p><b>pH:</b></p> <p><b>Melting point / Freezing point</b></p> <p><b>Initial boiling point and boiling range</b></p> <p><b>Flash point:</b></p> <p><b>Evaporation rate:</b></p> <p><b>Flammability (solid, gas)</b></p> <p><b>Upper/ lower flammability or explosive limits:</b></p> <p><b>Vapour pressure:</b></p>	<p>Liquid, Suspension concentrate</p> <p>White liquid</p> <p>Characteristic</p> <p>Not determined</p> <p>7.0-8.5</p> <p>No data available</p> <p>No data available</p> <p>No data available</p> <p>Not applicable</p> <p>Not autoflammable below 400°C</p> <p>Not explosive.</p> <p>No data available</p>

<b>Vapour density:</b>	No data available
<b>Relative density:</b>	Approximately 1.01 g/L
<b>Solubility (ies):</b>	Suspends water
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Viscosity:</b>	No data available
<b>Oxidative properties</b>	No oxidizing properties

<b>10) Stability &amp; Reactivity:</b>	
<b>Reactivity:</b>	No hazardous reactions known. Hazardous polymerisation does not occur. Combustion or thermal decomposition will evolve toxic and irritating vapours. Stable under normal conditions.
<b>Chemical stability:</b>	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Avoid strong basic, acidic or oxidising materials.
<b>Hazardous decomposition product(s):</b>	None under normal conditions of storage and of use.
<b>Conditions to avoid:</b>	No data available.
<b>Incompatible materials:</b>	No data available. Store only in the original container.

**11) Toxicological Information: Based on data for formulated product**

Acute:

Oral LD50 : >2000 mg / kg Rats.  
Dermal LD50 : > 2000 mg / kg Rats  
Inhalation : Rat, 4 hour, LC<sub>50</sub>: 2.58 mg/L air  
Aspiration toxicity: NA  
Skin irritation: Not an irritant  
Eye irritation : Not an irritant  
Sensitization : Grade 1 : Weak sensitiser  
Other:

**Repeated dose toxicity**  
N/A

**Mutagenicity**  
Fenpyroximate technical was not mutagenic or genotoxic when tested in the Ames gene mutation assay, Chinese hamster V79 Forward Mutation, mouse micronucleus and cultured human lymphocytes for chromosomal aberration,  
nor in the unscheduled DNA synthesis assay.

**Carcinogenicity:**  
In two year feeding studies with Fenpyroximate in rats, no organo-toxic effects were observed at dose levels up to 150 ppm. At dose levels of 75 and 150 ppm in both male and female rats, reduced body weight gains were observed. Fenpyroximate had no significant effect on mortality and was not carcinogenic at any of the doses tested. Similar results were ppm observed in dogs administered up to 15 mg/kg/day. Fenpyroximate was not oncogenic in mice at dose levels up to

**Reproductive toxicity:**  
Fenpyroximate technical demonstrated no adverse effects on reproductive performance in a two generation rat reproduction study, at dietary doses up to 100 ppm.

**Teratogenicity:**  
Fenpyroximate technical demonstrated no treatment related teratogenic effects in rabbit at oral dosage levels up to 5mg/kg/day, nor in rats at dose levels up to 25 mg/kg/day.

## 12) Ecological Information:

### Information below based on active ingredient:

- Bees** : LD<sub>50</sub> µg/bees: 15.8 (contact) (72 h), >119 (oral) (72 h)
- Birds** : Acute oral LD<sub>50</sub> for bobwhite quail and mallard ducks >2000 mg/kg. Dietary LC<sub>50</sub> (8 d) for bobwhite quail and mallard ducks >5000 mg/kg diet.
- Fish** : LC<sub>50</sub> (96 h) for carp 0.0055, rainbow trout 0.00105 mg/l.
- Algae** : E<sub>b</sub>C<sub>50</sub> (72 h) for *Pseudokirchneriella subcapitata* 9.98, *Scenedesmus subspicatus* 0.0034 mg/l; E<sub>r</sub>C<sub>50</sub> (72 h) for *S. subspicatus* 0.0055 mg/l.
- Worms** : LC<sub>50</sub> (14 d) for earthworms 69.3 mg/kg soil.
- Other aquatic species:** Daphnia : EC<sub>50</sub> (48 h) 0.00217 mg/l.

### Persistence and degradability:

The degradation of fenpyroximate was studied in upland soils (25 g diluvial and volcanic ash) under laboratory conditions to determine the fate in the field and environment. Soil samples fortified with pyrazole- and benzyl-labelled fenpyroximate (1.30-2.20 mg/kg) were incubated at 25°C for 112 days in the dark, in bottles with traps for CO<sub>2</sub> and volatile organic material. The compound was degraded with a half-life of 34.3-49.7 days in diluvial soil and 26.3-35.6 days in volcanic ash soil. Eleven degradation products were identified by thin-layer cochromatography from the pyrazole label, seven from the benzyl. The major degradation products were C, H and K. The other minor products were identified as A, B, F, I, L, M, P, U and V. The <sup>14</sup>C<sub>2</sub> liberated during the incubation of [pyrazole-<sup>14</sup>C]fenpyroximate amounted to 17.1% of the applied radioactivity in diluvial soil and 16.8% in volcanic soil. With [benzyl-<sup>14</sup>C] fenpyroximate the <sup>14</sup>C<sub>2</sub> amounted to 64.6% of the applied radioactivity in diluvial soil and 51.2% in volcanic soil. The structures of the identified degradation products suggest that the degradation pathway of fenpyroximate consists in hydrolysis of the ester, isomerization, cleavage to form the oxime, N-demethylation, oxidation of the methyl group at the 3-position on the pyrazole ring, hydroxylation of the phenyl ring, and mineralization to CO<sub>2</sub>. The degradation products in both soils were determined by TLC with ARG (autoradiography) and radioassay. At day 112 46-58% of the radioactivity from the pyrazole label and 21.3-41.5% of that from the benzyl label was unextractable; most of it was in the humin, humic acid and fulvic acid fractions (Hirano et al., 1990; Izawa et al., 1993).

DT<sub>50</sub> 26.3–49.7 d (J. Pestic. Sci., 1993, 18, 67–75).

Biodegradability: Not readily biodegradable

### Bioaccumulative potential

**Bioaccumulation:** Bioaccumulate.

### Mobility in soil

Immobile

### Results of PBT and vPvB assessment

No data available

### Other adverse effects:

Additional ecological information: No other effects to be mentioned.

## 13) Disposal Considerations:

**Waste Disposal:** In accordance with current regulations and, if necessary, after consultation with the site operator and / or with the responsible authority, the product may be taken to a waste disposal site or incineration plant. Do not contaminate ponds, waterways or ditches with any chemical or used container. Do not dispose of waste into the sewer. Where possible, recycling is preferable to disposal or incineration. If recycling is not practicable, dispose of in accordance with local and national regulations

Do not contaminate water, food or feed by disposal.

**Container Disposal:** Refer to the product label for instructions.

Invert the empty container over the spraying or mixing tank and allow it to drain for at least thirty seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to at least 30% of the volume of the container. Add the rinsings to the contents of the spray tank before destroying the container in the prescribed manner.

Destroy the empty container by perforation and flattening and dispose of it in a safe way in accordance with local regulations, such as by burning or burying it. Do not use it for any other purpose

## 14) Transportation Information:

UN NUMBER: 3082

**Road Transport ADR/ RID:**

Class: 9

Packaging group: III

Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fenpyroximate)

Environmental hazards: Environmentally hazardous. Marine pollutant.

Special precautions for user: None known.

**Maritime Transport IMDG / IMO:**

Class: 9

Packaging group: III

Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fenpyroximate)

Environmental hazards: Environmentally hazardous. Marine pollutant.

Special precautions for user: None known.

MARINE POLLUTANT

Air (ICAO / IATA):

Class: 9

Packaging group: III

Proper shipping name: Environmentally Hazardous Substance, Liquid, N.O.S. (Fenpyroximate)

Environmental hazards: Environmentally hazardous. Marine pollutant.

Special precautions for user: None known.

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC code): NA

**15) Regulatory Information:**

**Safety, health and environmental regulations / legislation specific for the substance or mixture.**

To avoid risks to man and the environment, comply with all instructions for use.

Advice on handling of the product can be found in sections 7 and 8 of this safety data sheet.

For the proper and safe use of this product, please refer to the approval conditions indicated in the product label.

**Labelling according to EC directives:**

Hazardous components which must be listed on the label: Fenpyroximate

**Symbol(s)** Xn - Harmful

N - Dangerous for the environment

**Risk - Phrase:**

R22 - Harmful if swallowed.

R26 - Very toxic by inhalation.

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

R65 - Harmful: May cause lung damage if swallowed

**S-phrase(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.

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.
- S37 - Wear suitable gloves.
- S39 - Wear eye / face protection.
- S45 - In case of an accident, or if you feel unwell, seek medical advice immediately (show label where possible)
- S46 - If swallowed, seek medical advice immediately and show this container or label.
- S61: Avoid release to the environment. Refer to special instructions / Safety data sheets.
- S63: In case of accident by inhalation; remove casualty to fresh air and keep at rest.

**Signal word : Danger**

**Hazard Statements:**

- H301: Toxic if swallowed
- H317: May cause an allergic skin reaction
- H330: Fatal if inhaled
- H373: May cause damage to organs
- H400: Very toxic to aquatic life
- H410: Very toxic to aquatic life with long lasting effects

**Precautionary statements:**

- P102 Keep out of reach of children.
- P270 Do not eat, drink or smoke when using this product.
- P284 Wear respiratory protection.
- P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P314 Get medical advice/attention if you feel unwell.
- P391 Collect spillage.
- P501 Dispose of contents/container to an approved waste disposal plant.

**Special labelling of certain mixtures:**

To avoid risks to man and the environment, comply with the instructions for use.

**Remarks**

Classified using all GHS hazard classes and categories. In cases where the GHS contains options, the most conservative option has been selected. Regional or national implementations of GHS may not implement all hazard classes and categories.

**16. Other Information**

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.

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. 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.

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