

**FARM-AG INTERNATIONAL (Pty) Ltd**

P.O. Box 1523, Durban 4000

Head Office : 61 Marshall Dr., Old Mill Industrial Park, Mount Edgecombe **South Africa**

Registration Number: 2005/011761/07

Tel + 27 31 003 3486 • Fax + 27 31 502 5825

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product name:** CALCULUS 125 SE  
**Product use:** Fungicide  
**Creation date:** February 2015  
**Revision date:** March 2021

**24 Hr Emergency Number:** 082 771 2712  
**In case of Spillage:**  
**HAZMAT:** 0800 147 112  
**In case of Poisoning:**  
**Poison Information Centre** 082 446 8946  
**Tygerberg Hospital:** (021) 931 6129  
**Red Cross Poison Emergency Enquiries :**(021) 689 5227

**2. COMPOSITION / INFORMATION ON INGREDIENTS**

**Common Name:** Epoxiconazole and Pyraclostrobin  
**Chemical Name:** Epoxiconazole: (2RS,3SR)-1-[3-(2-chlorophenyl)-2,3-epoxy-2-(4-fluorophenyl)propyl]-1H-1,2,4-triazole  
Pyraclostrobin: methyl N-{2-[1-(4-chlorophenyl)pyrazol-3-yloxymethyl]phenyl}(N-methoxy)carbamate  
**CAS No.:** [133855-98-8] and [175013-18-0]  
**Chemical Family:** Triazole and Methoxycarbamate  
**Chemical Formula:** C<sub>17</sub>H<sub>13</sub>Cl<sub>17</sub>H<sub>13</sub>ClFN<sub>3</sub>O and C<sub>9</sub>H<sub>18</sub>ClN<sub>3</sub>O<sub>4</sub>  
**Molecular weight:** 329.8 and 387.8  
**Formulation:** Epoxiconazole 62,5 g/l + Pyraclostrobin 62,5 g/l  
 Suspo-emulsion

**Use:** A suspo-emulsion contact and translaminar fungicide for the preventative control of diseases on barley, maize, soybeans, sugarcane and wheat.

**Hazardous ingredients of toxicological concern:**

COMPONENT	CAS No.	% by weight (approximate)
Epoxiconazole	133855-98-8	6,25 %
Pyraclostrobin	175013-18-0	6,25 %
		Up to 100%

The specific chemical identity is being withheld because it is trade secret information of Cedar Falls Properties.

**SYMBOLS:** Xn, N  
**Indication of danger:** Harmful, Dangerous for the environment  
**RISK-PHRASE(S):** R22, R37/R38, R43,R51/53, R62, R63

**3. HAZARD IDENTIFICATION****CAUTION!**

May be poisonous if mist or vapour is inhaled.  
 Harmful if swallowed and may be moderately irritating to eyes.  
 Irritating to respiratory system and skin.  
 May cause sensitization by skin contact.  
 Toxic to aquatic organisms.  
 May cause long-term adverse effects in the aquatic environment.  
 Possible risk of impaired fertility.  
 Possible risk of harm to the unborn child.

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## 4. FIRST AID MEASURES AND PRECAUTIONS

Use personal protection recommended in section 8.

### Symptoms of human poisoning:

The product may cause mild to moderate irritation, tearing, nausea, vomiting, diarrhea, headache, breathing difficulty and death.

### Eye contact

If in eyes, hold eye open and rinse slowly and gently for 15-20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing.

### Skin contact

Remove contaminated clothing, shoes and leather goods. Wash affected skin gently with plenty of water.

Use non-abrasive soap. If there are persistent symptoms, obtain medical advice.

### Inhalation

Remove person to a well-ventilated area. Keep person calm and reassured. If not breathing, give artificial respiration.

### Ingestion

Call poison control center or doctor immediately for treatment advice. Have person drink several glasses of milk or water if able to swallow. Do not induce vomiting unless told to do so by the poison center or doctor. Do not give anything by mouth to an unconscious person. Obtain medical attention immediately

### Advice to doctors

There is no specific antidote available. Treat symptomatically and supportively.

## 5. FIRE-FIGHTING MEASURES

### Fire/Explosion hazard:

**Non-flammable.**

### Flash point

Not applicable.

### Extinguishing media

Recommended: Water, dry chemical, foam, carbon dioxide (CO<sub>2</sub>)

### Unusual fire and explosion hazards

None.

Minimise use of water to prevent environmental contamination.

Environmental precautions: see section 6.

### Hazardous products of combustion

Carbon monoxide (CO), phosphorus oxides (P<sub>x</sub>O<sub>y</sub>), nitrogen oxides (NO<sub>x</sub>), hydrogen fluoride, organochloric compounds, sulfur oxides.

### Personal protective equipment.

Self-contained breathing apparatus.

Equipment should be thoroughly decontaminated after use.

## 6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

### Personal precautions

Use personal protection recommended in section 8.

### Environmental precautions

Keep out of drains, surface or groundwater or spilling onto soil. Considered a marine Pollutant.

### Occupational spill:

Avoid breathing mist/vapour and skin contact. Remove sources of ignition if combustible or flammable vapours may be present. Ventilate area.

### Methods for cleaning up

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Isolate area and keep authorized persons away. Do not walk through spilled material. Collect with the non-combustible suitable absorbent material. Contaminated soil may have to be removed and disposed. Label drums with its content and dispose of it in accordance with local regulations. Open burning or dumping of this material is prohibited.

## 7. HANDLING AND STORAGE REQUIREMENTS

Good industrial practice in housekeeping and personal hygiene should be followed.

### Handling

Avoid contact with eyes and skin. Product may be mildly irritating to eyes and skin.

When using do not eat, drink or smoke.

Wash hands thoroughly after handling or contact.

Thoroughly clean equipment after use.

Do not contaminate drains, sewers and water ways when disposing of equipment rinse water.

Emptied packages retain product residue and dust.

**FOLLOW LABELLED WARNINGS EVEN AFTER CONTAINER IS EMPTIED.**

### Storage

Keep away from food, drink and animal feed.

Keep only in the original container.

The product can crystallize below the limit temperature.

Protect from temperatures below: -5°C and above 40°C.

Minimum shelf life: 2 years.

Local regulations should be complied with.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### Engineering controls

An approved respirator suitable for protection from mists of pesticides is adequate.

### Eye protection

If there is significant potential for contact:

Wear safety goggles.

### Skin protection

Wear chemical resistant gloves and appropriate protective clothing and equipment to prevent repeated skin contact with this product. Wash contaminated clothing and clean protective equipment before re-use.

### Respiratory protection

No special requirement when used as recommended.

When recommended, consult manufacturer of personal protective equipment for the appropriate type of equipment for a given application.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Liquid Suspension
<b>Colour:</b>	White
<b>Odour:</b>	Faint aromatic
<b>Relative density:</b>	Circa 1,03 g/cm <sup>3</sup> (20°C)
<b>Solubility in water:</b>	Dispersible
<b>Flash point:</b>	Does not flash – boils at 100°C
<b>pH:</b>	6 - 8

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## 10. STABILITY AND REACTIVITY

### Stability

Stable under normal conditions of handling and storage.

### Materials to avoid/Reactivity

Strong bases, strong acids, strong oxidizing agents.

### Hazardous decomposition

Thermal decomposition: Hazardous products of combustion: see section 5.

## 11. TOXICOLOGICAL INFORMATION

This section is intended for use by toxicologists and other health professionals.

Data obtained on product and components are summarized below.

**Acute oral toxicity** LD<sub>50</sub> (Rat): >5000 mg/kg

**Acute dermal toxicity:** (Rat) LD<sub>50</sub>: >2,000 mg/kg

**Skin irritation: Rabbit:** Mildly irritating

**Eye Irritation: Rabbit:** Mildly irritating

**Acute inhalation toxicity:** Rat, LC<sub>50</sub>, 4 hours, aerosol: 3.79 > mg/L

**Skin Sensitization:** Skin sensitization after skin contact possible

### Carcinogenicity

The product has not been tested. The statement has been derived from the properties of the individual components.

### Epoxiconazole

Indication of possible carcinogenic effect in animal test.

### Reproductive toxicity

#### Epoxiconazole:

The results of animal studies suggest a fertility impairing effect.

### Development toxicity:

#### Epoxiconazole

Developmental toxicity/teratogenicity were seen in animal studies.

### Repeated dose toxicity and Specific target organ toxicity

#### Epoxiconazole

Repeated exposure to large quantities may affect certain organs

#### Pyraclostrobin

After repeated exposure the prominent effect is local irritation. The substance may cause damage to the olfactory epithelium after repeated inhalation.

## 12. ECOLOGICAL INFORMATION

### TOXICITY:

#### Aquatic toxicity, fish: Very toxic to aquatic organisms.

May cause long-term adverse effects in the aquatic environment.

#### Rainbow trout (Oncorhynchus mykiss):

Epoxiconazole: Acute toxicity, 96 hours LC<sub>50</sub>: >2.2 - <4.6 mg/L

Pyraclostrobin: Acute toxicity, 96 hours, LC<sub>50</sub>: 0.0062 mg/L

#### Aquatic toxicity, invertebrates: Water flea (Daphnia magna):

Epoxiconazole: Acute toxicity, 48 hours, static, EC<sub>50</sub>: 8.69 mg/L

Pyraclostrobin: Acute toxicity, 48 hours, static, EC<sub>50</sub>: 0.016 mg/L

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**Aquatic toxicity, algae/aquatic plants**Epoxiconazole: EC<sub>50</sub> (72 h) green algae for 2.3 mg/lPyraclostrobin: ErC<sub>50</sub> (72 h) for *Pseudokirchneriella subcapitata* >0.843**Arthropod toxicity****Bees (*Apis mellifera*)**: Practically non-toxicEpoxiconazole: LD<sub>50</sub> >100 µg/beePyraclostrobin: (oral) >73.1 µg/bee; (contact) >100 µg/bee**Soil organism toxicity, invertebrates**: Practically non-toxic.**Worms (*Eisenia foetida*)**:Epoxiconazole: EC<sub>50</sub> (14 d) > 1000 mg/kg dry soilPyraclostrobin: LC<sub>50</sub> 567 mg/kg soil**Persistence and degradability**:

Not readily biodegradable

**Bioaccumulative potential**:**Bioconcentration factor**:Epoxiconazole: 59 – 70, *Oncorhynchus mykiss*. Does not accumulate in organismsPyraclostrobin: 379 – 507, *Oncorhynchus mykiss*. Accumulation in organisms is not to be expected.**Mobility in soil**

Contamination of groundwater is not expected.

**13. DISPOSAL CONSIDERATION****Pesticide disposal**:

Keep out of drains, sewers, ditches and water ways.

Recycle if appropriate facilities/equipment available.

Must be sent to a suitable incineration plant, observing local regulations.

Follow all local/regional/national/international regulations.

**Container**

See the individual container label for disposal information.

Emptied packages retain products residue and dust.

Observe all labeled safeguards until container is cleaned, reconditioned or destroyed.

Empty packaging completely.

Store for collection by approved waste disposal service.

Ensure packaging cannot be reused.

Do NOT re-use containers.

Bury in approved landfill.

Follow all local/regional/national/international regulations.

Use handling recommendations in Section 7 and personal protection recommendations in Section 8.

**14. TRANSPORT INFORMATION****UN No.:** 2902**Road Transport ADR/IRD:**

Hazard class: 6.1

Class : 9

Packaging group: III

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Shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S (contains PYRACLOSTROBIN, EPOXICONAZOLE)

**Maritime Transport IMDG/IMO: MARINE POLLUTANT**

Class : 9

Packaging group: III

Shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S (contains PYRACLOSTROBIN, EPOXICONAZOLE)

**15. REGULATORY INFORMATION****Symbol:** Xn, N**Indication of danger:** Harmful, Dangerous for the environment**Risk phrases:****R22** Harmful if swallowed**R37/R38** Irritating to respiratory system and skin.**R43** May cause sensitization by skin contact**R51** Toxic to aquatic organisms**R53** May cause long-term adverse effects in the aquatic environment.**R62** Possible risk of impaired fertility**R63** Possible risk of harm to unborn child**Safety phrases:****S 1/2** Keep locked up and out of the reach of children.**S 24/25** Avoid contact with skin and eyes.**S 36/37/39** Wear suitable protective clothing, gloves and eye/face protection.**S 60** This material and its container must be disposed of as hazardous waste.**16. OTHER INFORMATION****Packing and Labelling:**

Packed in 1, 5, 10, 20, and 25 litre fluorinated HDPE plastic containers and labelled according to the South African regulations and guidelines.

**Disclaimer:**

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance regarding health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed.

All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.