



change that doesn't  
cost the earth

38 Amatole Road, N4 Gateway Industrial Park West  
Willow Park Manor Extension 65, Pretoria

PostNet Suite #577, Private Bag x37, Lynnwood Ridge, 0040

T: 086 112 4228 | F: 086 516 5968 | E: [planting.info@i-cat.co.za](mailto:planting.info@i-cat.co.za) | W: [www.planting.i-cat.co.za](http://www.planting.i-cat.co.za)

Pretoria | Durban | Sishen | Cape Town | Middelburg | Namibia | Botswana | Mozambique | Zambia | DR Congo



## Safety Data Sheet

### Section 1: Identification

<b>Product Name:</b>	Dendro
<b>Synonyms:</b>	None
<b>Active Ingredient:</b>	Potassium polyacrylate cross-linked; please view product label for more information
<b>CAS Number:</b>	Not Applicable
<b>EC Number:</b>	Not Applicable
<b>Molecular Formula:</b>	Not Applicable
<b>Product Use:</b>	A soil conditioner and water/nutrient retainer that promotes early growth and yield of plants
<b>Physical State:</b>	Granular crystals, light brown
<b>Company Identification:</b>	I-CAT International Consulting and Trading (Pty) Ltd
<b>Physical Address:</b>	38 Amatole Road N4 Gateway Industrial Park West Willow Park Manor Extension 65 Pretoria
<b>Postal Address:</b>	PostNet Suite # 577 Private Bag X37 Lynwood Ridge 0040
<b>Telephone Number:</b>	+27 (0)86 112 4228
<b>Emergency Telephone Number:</b>	+27 (0)824468946
<b>In case of spillage:</b>	HAZMAT: 0800 147 112

#### Directors:

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg

I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799



## Section 2: Hazard(s) Identification

Classification per SANS 10234 (GHS), CLP and (EC) No 1272/2008, is not applicable.

<b>Physical Hazard:</b>	None Known
<b>Health Hazard:</b>	R22 – Harmful if swallowed  Non-irritative to eyes, but could cause damage to eyes at high dosages
<b>Aquatic Hazard:</b>	None Known
<b>Pictograms:</b>	None
<b>Signal Word:</b>	Warning
<b>Hazard Statement:</b>	Spilled product in contact with moisture causes surface to become extremely slippery
<b>Precautionary Statement:</b>	
P102	Keep out of reach of children, uninformed persons and animals

## Section 3: Composition and Information on Ingredients

Potassium polyacrylate is the active ingredient.

Name	CAS Number	EC Number	%
Potassium polyacrylate	-	-	3

The table below lists the rest of the Dendro composition.

Name	Composition	Concentration %
Bone meal	Nitrogen, Phosphorus, Calcium, Magnesium, Sulphur, Sodium, Chloride, Copper, Iron, manganese, Zinc, Boron, Molybdenum	45
Binder	-	35
Nitroactra	-	17

**Directors:**

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg  
I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799

## Section 4: First Aid Measures

- Eye Contact:** Do not rub eyes. Thoroughly wash out the opened eye/s with plenty of water for at least 15 min. Ensure that you occasionally lift the upper and lower eye lids. Remove contact lenses if it's easy to do so and continue rinsing the eyes. Consult a doctor if necessary.
- Inhalation:** Move into fresh air and consult a doctor. If not breathing give artificial respiration or oxygen by a qualified person. Maintain an open-air way. Loosen tight clothing, such as collars, tie and belts.
- Skin contact:** Wash off with plenty of soap and water, consult a doctor if necessary. Remove any contaminated clothing.
- Ingestion:** Rinse out the mouth and drink plenty of water. Consult a doctor if pain or discomfort occurs. Never induce vomiting.

**If unsure consult a doctor and take this SDS with you.**

## Section 5: Fire Fighting Measures

**Suitable extinguishing media:**

Water, dry chemical powder, alcohol resistant foam, carbon dioxide or sand can be used.

**Unsuitable extinguishing media:**

None identified.

**Special Hazards arising from the substance or mixture:**

The following may be released: carbon monoxide or nitrogen oxides.

**Advice to firefighters and protective equipment:**

No special equipment required. A dust mask can be advantageous. Avoid creating a dust cloud.

**Directors:**

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg

I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799

## Section 6 – Accidental Release Measures

### **Personal Precaution:**

Personal protective clothing including a dust mask can be used as safeguard measures. Wash hands/or areas of skin contact with soap and water after handling the product. Keep in mind that spilled product in contact with water or moisture causes product to become slippery. For further information see Section 8.

### **Emergency Procedure:**

Immediately isolate the spill and prevent further spillage. Keep unauthorized personnel or bystanders away from the spill.

### **Environmental Precaution:**

Collect and flush small residuals with much water into the drain for subsequent biological waste effluent treatment. Prevent entry of the spilled product into main waterways, sewers or confined areas.

### **Methods for Clean up:**

Avoid creating a dust cloud. Clean-up can be accomplished by sweeping with a broom and shovelling the product in appropriate labelled containers. Alternatively, a vacuum using a spark proof vacuuming system could be used.

### **Other Information:**

See Section 13 for disposal Considerations.

## Section 7 – Handling and Storage

### **Precautions for safe handling:**

Avoid creating a dust cloud. Do not inhale the product. Respiratory/dust masks and other personal protective equipment and clothing, such as gloves and safety glasses should be worn, as safeguard measures. PPE that is heavily contaminated with the product can be washed or disposed of.

After working with the product ensure you wash your hands before eating, drinking or smoking.

### **Conditions for safe storage, including any incompatibilities:**

Store product in original packaging and in a well-ventilated area that is dry, preferably room temperature or cooler (4 – 10°C) for maximum shelf-life. Ensure that the containers are tightly sealed. Avoid direct sunlight and excess heat – exposure to sunlight results in breakdown of the hydrogel within 3 – 6 weeks. Ensure no unauthorised entry.

### **Directors:**

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg

I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799

## Section 8 – Exposure Controls and Personal protection

*Components with workplace control parameters.*

**Value:** 0.05mg/m<sup>3</sup>

**Remarks:**

Recommended limit for fine, inhalable polyacrylate dust below 0.01mm particle size. Provisional result of inhalation studies on animals using comparable dusts.

**Engineering Controls:**

Ensure that there is adequate ventilation. Ensure that there are safety showers and eye wash stations near the location where work is conducted. No Special requirements under normal use conditions.

**Personal Protection:**

Ensure that there is adequate ventilation. Avoid contact with skin and eyes. Use safety glasses, dust coat/overall, dust masks and gloves when handling the product. Use respiratory protection when exceeding limit and dust is formed. All PPE must be approved under standards such as OSHA 29 CFR 1910.132 or EU directive 89/686/EEC.

**Hygiene measures:**

Obey reasonable safety precautions and practice good housekeeping.

## Section 9 - Physical and Chemical Properties

<b>Appearance</b>	Solid (powder)
<b>Colour</b>	Light Brown
<b>Odour</b>	Slight organic odour
<b>Particle size:</b>	0.2mm – 2mm
<b>pH</b>	7.7 at 1.0g/l
<b>Melting Point</b>	Not Analysed
<b>Boiling Point</b>	Not Analysed
<b>Flash Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Analysed

**Directors:**

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg  
I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799

<b>Flammability</b>	Not Analysed
<b>Upper/Lower explosion limits</b>	Not Applicable
<b>Vapour Pressure</b>	<20hPa at 20°C
<b>Vapour Density</b>	Not Analysed
<b>Bulk Density</b>	~700kg/m <sup>3</sup>
<b>Solubility in Water</b>	Insoluble (swell to a gel upon contact with water)
<b>Water retention</b>	1g ≤ 125ml
<b>Viscosity, Dynamic</b>	At 20°C / not applicable
<b>Partition Coefficient: n-octanol/water</b>	Not Analysed
<b>Auto-ignition temperature</b>	Not Analysed
<b>Decomposition temperature</b>	Not Analysed
<b>Oxidising Properties</b>	Not Analysed
<b>Pyrophoricity</b>	Not Analysed

## Section 10 – Stability and Reactivity

### Reactivity:

Stable under recommended storage conditions

### Stability:

Stable under recommended storage condition. The substance won't form toxic compounds if released to the atmosphere.

### Possibility of Hazardous Reactions:

None known, if stored and handled as recommended.

### Conditions to Avoid:

Heat, Flames and sparks. The product should be kept below 32 °C.

### Hazardous Decomposition Products:

Thermal decomposition can lead to the formation of: carbon monoxide and nitrogen oxide.

### Directors:

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg  
I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799

## Section 11 – Toxicological information

### Acute Toxicity:

**Oral:** LD50 / Dose: >5000mg/kg/limit test

**Dermal:** LD50 / Dose: >2000mg/kg/limit test

**Likely routes of exposure:** Skin, eye contact and Inhalation

**Target Organs:** Skin, Eyes, respiratory System

- a) Skin Corrosion/irritation:** Rabbit / method: OECD Nr. 404 – non irritative to the skin.
- b) Eye Damage/irritation:** Rabbit / method: OECD Nr. 405 – non irritative; but could cause damage to the eyes.
- c) Respiratory and Skin Sensation:** No Sensitization.
- d) Teratogenicity:** No Information

## Section 12 – Ecological Information

**Phytopathogens:** Below threshold limits.

**Ecotoxicity:** Non-toxic to the environment.

*Elimination information (persistence and degradability) / Biodegradability:*

**Result:** Not rapidly degradable under aerobic conditions.

**Ciliate toxicity:** Tetrahymena pyriformis / EC50>6000mg/l.  
**Exposure time:** 24:00h.

**Bacterial toxicity:** *Ps. Putida* / EC50>6000mg/l.  
**Exposure time:** 24:00h.  
**Method:** DEV L8

### Directors:

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg  
I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799

**Fish toxicity:** *Leuciscus idus* / LC50 >550mg/l.  
**Exposure time:** 96:00h.  
**Method:** OECD203

**Fish toxicity:** *Danio rerio* / LC50>4000mg/l.  
**Exposure time:** 96:00h.  
**Method:** OECD203

## Section 13 – Disposal Considerations

Disposal should comply with the waste disposal legislation (GN R. 634, 635 and 636) as well as any other municipal regulations. The preferred methods of disposal are firstly recycling or re-using and lastly landfill. In this case the containers cannot be reused for any other purpose. This product should never be disposed of down any drains or sewage lines. Open dumping or burning is prohibited.

### **Packaging/Containers:**

The empty containers will still contain vapours and product residues. Triple rinse or preferably pressure rinse empty containers before disposal. The rinse water must also be collected. Do not re-use the containers for any other purposes. Nor the empty containers or product should ever be burned.

## Section 14 – Transport Information

### **Land transport:**

**ADR:** Not dangerous goods.

**RID:** Not dangerous goods.

### **Sea transport:**

**IMDG:** Not dangerous goods.

### **Air transport:**

**ICAO/IATA:** Not dangerous goods.

### **Directors:**

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg  
I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799



## Section 15 – Regulatory Information

<b>Relevant Regulations:</b>	SANS 10234, SANS 10228.
	Regulated by the Fertilizers, Farm Feeds, Agricultural remedies and stock Act, Act No 36 of 1947.
	South African Occupational Health and Safety Act, Act No 85 of 1993.
<b>GHS / Transport Labelling:</b>	Labelling according to EEC directive.
<b>Symbol:</b>	None
<b>Risk Phrases:</b>	R22 – Harmful if swallowed.
<b>Safety Phrases:</b>	S 1/2 – Keep locked-up and out of reach of children, uninformed persons and animals.

## Section 16 – Any other Relevant information

<b>Residual monomers:</b>	Acrylic acid <600ppm.
<b>Date of issue:</b>	2nde Issue; 7 May 2020
<b>Compiled by:</b>	I-CAT International Consulting and Trading (Pty) Ltd.
<b>Contact person:</b>	Leon Janse van Rensburg +27 (0)86 112 4228

### To be noted:

The information contained in this SDS is based upon data considered to be accurate at the time of preparation. I-CAT International Consulting and Trading (Pty) Ltd, has taken reasonable care in the preparation of this SDS, however it assumes no responsibility or liability to the accuracy as well as the suitability of the information, for both the intended purpose of this product or any consequences of its use. Since regulatory standards and guideline recommendations are revised on a continuous basis, I-CAT International Consulting and Trading (Pty) Ltd cannot ensure that the information contained in this SDS will be current at the time of use.

The information in this SDS relates only to the product as stated and not for use in combination with any other product or process. I-CAT International Consulting and Trading (Pty) Ltd cannot be held responsible for any physical or chemical changes that the buyer or user may make to this product. The buyer and/or user is obligated to determine the conditions for safe use.

### Directors:

JJ van Reenen, AD van der Merwe, WD Warries, LP Jansen van Rensburg  
I-CAT International Consulting & Trading (PTY) Ltd Reg. No. 2012/058514/07 VAT. No. 4960229799