

PATAGONIA BIOTECNOLOGÍA S.A.

MATERIAL SAFETY DATA SHEET FERTUM ®Root Dry

Date of Issue APRIL 04, 2018

Section 1: Product and Manufacturer Identification

Product Name	FERTUM ® Root Dry
Id.Number	200122
Manufacturer	Patagonia Biotecnología S.A. Av. Ecuador 2155, Bodega 5, interior Valdivia. Región de los Ríos. Chile.
Distributed by	Patagonia Biotecnología S.A.
Address	Moctezuma 655. Valdivia.
Telephones	Fonos (+56-63) 2434146 - (+56-63) 2216932
Emergency Mobile phone	(569) 9978 2003 y (569) 9978 2007

Section 2: Formulae and ingredients

Chemical name	Chelated macro and microelements
Chemical formula	Not available
Synonyms	None
CAS Number#	No information
U.N. Number#	Not dangerous for transport

Section 3: Hazards Identification

Label notice	Complete foliar nutrient fertilizer, in powder
Product hazard/risk Classification	It is not considered hazardous
a) Health hazard	
Effects for acute overexposure	No risk
Inhalation	No risk. Can cause slight coughing and sneezing
Skin contact	Does not irritate unless the skin has injuries
Eye contact	Mild irritant
Ingestion	Harmful if swallowed. Can cause nausea
Effects of repeated overexposure	No information
Health conditions that can be aggravated after exposure to the product	No information
b) Risks for the Environment	No information
c) Special risks	No information

Section 4: First Aid procedures

In case of accidental contact with the product, do the following:	
Inhalation	Transfer to fresh air
Skin contact	Flush the affected area thoroughly with water.
Eye contact	Flush with water repeatedly for 15 minutes Contact a physician
Ingestion	Give water to drink. Induce vomiting Get medical assistance depending on symptoms
Information for physician	Chelated boron with seaweed extract

Section 5: Fire Fighting procedures

Extinguishing media	Appropriate to the surroundings
Special procedures	Not flammable.
Personal protective equipment	Self-contained breathing apparatus, PVC, waterproof clothing or plastic aprons

Section 6: Procedures for controlling spills and leaks

Emergency procedures in case of spills	Wash with water
Personal protective equipment	Rubber or PVC boots, waterproof suit
Safeguards against environmental damage	Isolate area around the spill to avoid contact with water sources for human or animal use
Cleaning procedures	Mechanical. Dilute with water and rinse the area
Waste disposal methods	See section 13

Section 7: Handling and storage

Technical suggestions	Avoid humidity and excess heat
Steps to be taken	Avoid contact because it can irritate
Handling suggestions	Use gloves, boots and waterproof suit
Storage conditions	In cool, isolated and ventilated area
Suggested packaging	Synthetic material containers

PATAGONIA BIOTECNOLOGÍA S.A.

MATERIAL SAFETY DATA SHEET FERTUM ® Root Dry

Section 8: Handling and storage

Procedures for reducing the risk of exposure	Work in large, well ventilated area
Control parameters	No information
Breathing protection	Gas mask
Protection gloves	Plastic or rubber
Eye protection	Goggles
Other equipment	Not applicable
Ventilation	Normal

Section 9: Physical and Chemical Properties

Form/Appearance	Powder concentrate
Appearance and odour	Glossy brown colour and with typical smell
Concentration (%)	N 1 - P ₂ O ₅ 0.7 - K ₂ O 23 - CaO 1.8 - MgO 2.8
pH	8,5 - 9,0
Thermal Decomposition	Over 400 ° C (752 F°)
Flash point	Not flammable.
Explosive properties	Not applicable
Self-ignition temperature	Not applicable
Risk of fire or explosion	Not applicable
Flame spread rate	Not applicable
Vapour pressure at 25°C	No information
Vapour density at 20 °	No information
Density at 20 °C	Not Informed
Solubility in water and other solvents	No information

Section 10: Stability and reactivity

Stability	Stable product
Conditions that must be avoided	Excess heat
Incompatibility (materials to avoid)	Compatible with phytosanitary products. Perform tests with mixtures
Hazardous products (decomposition)	Produces CO ₂ at high temperatures
Hazardous products (flammability)	Not applicable
Hazardous polymerization	Will not occur

Section 11: Toxicological Information

Acute toxicity	No information
Toxicity due to Repeated or prolonged exposure	No information
Local effects	No information
Allergenic sensitivity	No information

Section 12: Ecologic Information

Reactivity	Stable
Persistence/Degradability	It is absorbed by vegetables as a nutrient
Bioaccumulation	No information
Effects on the environment	Innocuous. Does not pollute the environment

Section 13: Final disposal procedures

Product residues disposal method	Dispose normally, in accordance with regulations
Disposal of polluting containers and packaging	Wash and dispose of according to regulations

Section 14: Transport Information

Relevant label information, Nch 2190	Not applicable
Land, Sea and Air transport	Not dangerous for transport

Section 15: Current Regulations

Relevant International Regulations	No information
Relevant national Regulations	NCh 382 of. 98
Label	FERTUM Root Dry

Section 16: Other information

The judgements stated in this form have been developed by qualified professionals and is the current knowledge on these matters. Considering that the use of this information and product are out of the control of the supplier, the company accepts no responsibility due to these uses. It is the responsibility of the user to define the procedures for safe use of the product.