

**Suntec MATRIX Material Safety Data Sheet. Suntec NZ Ltd
JUNE 2002**

PRODUCT

Trade Name	Matrix
Product	HORTICULTURAL FERTILIZER
Manufactūrer	Suntec NZ Ltd, Main Rd South , Tokomaru, New Zealand
Supplied by	Suntec (NZ) Ltd, P O Box 41, Tokomaru 5450, New Zealand phone +64 6 3298142, fax +64 6 3298041, internet www.suntec.co.nz email suntec@suntec.co.nz
Formulation type	Suspension Concentrate.
Appearance	White or pale blue thick liquid.

Ingredients: Calcium Nitrate, MonoPotassium Phosphate, Potassium Nitrate, magnesium Sulphate, Iron EDTA, Manganese Sulfate, Boric Acid, Zinc Sulfate, Copper Sulfate, Ammonium Molybdate, Nickel Sulfate, Cobalt Sulfate, Potassium Iodide, Potassium Dichromate, Sodium Selenate, Acozine blue or Rubinol red.

Active ingredient(s) Mineral ions

PHYSICAL

Specific Gravity	1000 g per litre
Solubility in Water	Soluble.
Boiling point	100 °C
Melting Point	Below 0 °C
pH	5.5 to 6.0
Flammability	Non-Flammable. Non Explosive.
Other	Contains dissolved oxidising agents

HAZARD IDENTIFICATION

Inhalation	NONE
Eye irritation	MILDLY ACIDIC, HIGHLY SALINE as CONCENTRATE.
Skin Absorption	NONE- ALTHOUGH CAN HAVE IRRITANT EFFECT ON EXPOSED SKIN
Ingestion	Contains nitrates and selenium.
CHRONIC	Long Term exposure to nitrates and some trace elements can be damaging to health.
TOXICOLOGY- (NON TOXIC)	
ECOTOXIC	Contains nutrient ions which can aggravate or encourage algal bloom. Contains trace amounts of chromium nickel and cobalt.

FIRST AID MEASURES

Inhalation	NONE REQUIRED.
Eye Contact	Wash eyes with plenty of warm water for approximately 15 minutes. Seek medical assistance if allergic reaction occurs.
Skin Contact	Remove clothing from affected area, and wash with warmwater and detergent. If allergic reaction arises consult physician.
Ingestion	Consult physician.
Emergency Treatment	No recommended procedures.

ACCIDENTAL SPILLAGE

Land Spill	Absorb and dispose of spilt material. Flush area with hot water to reduce residue.
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Contamination of waterway Avoid further spillage of concentrate into waterway. Ensure adequate dilution of spilt material.

HANDLING AND STORAGE

Storage Store dry under cool dark conditions

EXPOSURE AND PERSONAL PROTECTION

Applicators Minimal Protective clothing required for application.

Re-Packaging of Product Skin Protection (gloves) recommended.

GUARANTEED MINIMUM ANALYSIS

Product Trade Name	Matrix blue
Guaranteed Minimum Analysis	
	%
Total Nitrogen (N)	3.0
Ammoniacal Nitrogen	0.14
Nitrate Nitrogen	2.86
Available Phosphorus (P ₂ O ₅)	2
Soluble Potash (K ₂ O)	4
Calcium (Ca)	2.8
Magnesium (Mg)	0.75
Sulfur (S)	0.99
Iron (Fe)	0.05
Chelated Iron	0.05
Manganese (Mn)	0.03
Boron (B)	0.007
Zinc (Zn)	0.004
Copper (Cu)	0.0007
Molybdenum (Mo)	0.0005
Cobalt (Co)	0.00045
Nickel (Ni)	0.00036
Derived from (in order of content) Calcium Nitrate, Magnesium Sulfate, Potassium Nitrate, Monopotassium Phosphate, Iron EDTA, Manganese Sulfate, Boric Acid, Zinc Sulfate, Copper Sulfate, Ammonium Molybdate, Cobalt Sulfate, Nickel Sulfate.	

Product Trade Name	Matrix red
Guaranteed Minimum Analysis	
	%
Total Nitrogen (N)	2.6
Ammoniacal Nitrogen	0.09
Nitrate Nitrogen	2.51
Available Phosphorus (P ₂ O ₅)	2.4
Soluble Potash (K ₂ O)	5.6
Calcium (Ca)	2.0
Magnesium (Mg)	0.86
Sulfur (S)	1.14
Iron (Fe)	0.05
Chelated Iron	0.05
Manganese (Mn)	0.03
Boron (B)	0.007
Zinc (Zn)	0.004
Copper (Cu)	0.0007
Molybdenum (Mo)	0.0005
Cobalt (Co)	0.00045
Nickel (Ni)	0.00036
Derived from (in order of content)	
Calcium Nitrate, Magnesium Sulfate, Potassium Nitrate, Monopotassium Phosphate, Iron EDTA, Manganese Sulfate, Boric Acid, Zinc Sulfate, Copper Sulfate, Ammonium Molybdate, Cobalt Sulfate, Nickel Sulfate.	

Product Label Text:

Matrix All Purpose Liquid Fertilizer

HYDROPONICS

Dilute 10 ml per litre (1: 100) to result in EC=3.0 mmho (CF=30)

Dilute 5ml per litre (1: 200) to result in EC=1.5 mmho (CF=15)

Adjust dilution to achieve desired CF (EC)

Add required amount of liquid concentrate to a measuring jug and add enough water to dissolve.

Then tip the diluted product into the nutrient reservoir.

HOME GARDEN - GENERAL PLANT FOOD

Add 10 ml per litre water as a general plant food. Water into soil or potting mix for gardens and pot plants

FOLIAR SPRAY

Add 5ml per litre water and spray over foliage to achieve good coverage. Spray towards early evening for best results.

HORTICULTURE - FERTIGATION

Use in fertigation at a rate of 1:200. Suitable for a wide range of vegetable, fruit and flower crops.