

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1 Product Identifier** **TREE FERN & PALM FEED**

**1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**  
Fertiliser

**1.3 Details of the Supplier of the Substance or Mixture**  
Vitax Limited, Owen Street, Coalville LE67 3DE  
Tel: 01530 510060 Email: info@vitax.co.uk

**1.4 Emergency Contact:** Tel: 01530 510060 (Office Hours)

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

CLASSIFICATION according to Directive EC 1272/2008 Classification, Labelling and Packaging  
This mixture is not classified as dangerous to humans or the environment

**Primary Hazard**

None.

### 2.2 Label Elements

There are no statutory labelling requirements under Directive 1999/45/EC, regulation 1272/2008 and regulation 453/2012.

### 2.3 Other Hazards

Mixture not classed as PBT or vPvB

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Product Code:

### 3.2 Mixtures

### 3.3 Hazardous components

Chemical Name	CAS-No./ EINECS-No.	Annex Index or REACH number	Symbol(s)	R-phrases	Concentrations [%]
POTASSIUM NITRATE	7757-79-1/ 231-818-8	REACH no.: 01-2119488224-25	According to 1272/2008: GHS07	According to 1272/2008: Oxid. Solid 3; H272	1 – 5%
CITRIC ACID MONO-HYDRATE	201-069-1 77-92-9	REACH registered number(s): 01-2119457026-42		Eye Irrit. 2: H319	1-10%
COPPER SULPHATE	231-847-6 7758-98-7			Acute Tox.4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	<1%

The full hazard information for individual components if not displayed in section 2 or 3 are displayed in Section 16.

## 4.0. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### 4.1.1 Inhalation

Remove from source of exposure to fresh air; seek medical attention.

#### 4.1.2 Skin & Eye exposure

Skin: Drench immediately with water. Remove any contaminated clothing and launder before re-use. Seek medical attention if symptoms persist or develop.  
Eyes: Rinse cautiously for several minutes, Remove contact lenses, if present and easy to do, rinse with clean water for 15 minutes. Seek medical attention if symptoms arise or persist.

#### 4.1.3 Ingestion

Do not induce vomiting. Wash out mouth with water and give water to drink. Obtain medical attention if symptoms persist or develop.

### 4.2 Most important symptoms and effects, both acute and delayed

None known.

### 4.3 Indication of any immediate medical attention and special treatment needed.

Information not available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

Use foam, carbon dioxide, dry powder, sand. The mixture is not classified as flammable as such extinguishing media should be chosen as appropriate for surrounding materials.

### 5.2 Special Hazards arising from the substance or mixture

Possible irritant fumes arising from combustion

### 5.3 Advice for fire-fighters

Cool down containers/equipment exposed to heat with a water spray. Contain spread of extinguishing fluids (these fluids may be hazardous for the

environment). Wear complete protective clothing and self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

The following irrespective of their classification unless otherwise specified. Use personal protective equipment -appropriate coveralls and gloves -eye/face protection -appropriate respirator. Avoid contact with skin and eyes

### 6.2 Environmental Precautions

Do not allow to enter storm drains or water courses. If this product enters a water course or a sewer (including via contaminated soil & vegetation) contact local water authority and inform the Environment Agency

### 6.3 Methods and material for containment and cleaning up

Soak up with absorbent material such as sand and transfer to suitable container. Contact specialist waste disposal contractor.

### 6.4 Reference to other sections

No reference necessary

## 7. HANDLING AND STORAGE

### 7.1 Precaution for safe handling

Avoid contact with skin and eyes. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool dry atmosphere, in original labelled containers. Refer to manufacturer for maximum safe stacking height. Keep away from heat sources, combustible materials.

### 7.3 Specific end use(s)

No specific information available

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control Parameters

#### Potassium nitrate:

#### DNEL/DMEL (Workers)

Long-term - systemic effects, dermal 20.8 mg/kg bodyweight/day

Long-term - systemic effects, inhalation 36.7 mg/m<sup>3</sup>

#### DNEL/DMEL (General population)

Acute - systemic effects, oral 12.5 mg/kg bodyweight

Long-term - systemic effects, inhalation 10.9 mg/m<sup>3</sup>

Long-term - systemic effects, dermal 12.5 mg/kg bodyweight/day

#### PNEC (Water)

PNEC aqua (freshwater) 0.45 mg/l

PNEC aqua (marine water) 0.045 mg/l

PNEC aqua (intermittent, freshwater) 4.5 mg/l

#### PNEC (STP)

PNEC sewage treatment plant 18 mg/l

#### CITRIC ACID MONOHYDRATE

PNEC Fresh water 0.44mg/l

PNEC Marine water 0.044mg/l

PNEC Fresh water sediments 3.46mg/l

PNEC Marine sediments 34.6mg/l

PNEC Microorganisms in sewage treatment >1000mg/l

PNEC Soil (agricultural) 33.1mg/kg

### 8.2 Exposure controls

Goggles – Eye Protection: goggles/face shield to BS EN166.

Gloves – BS EN374 – chemical protection.

Respirators – BS approved protection device with P3 filter.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance;	Straw coloured liquid
Odour;	Information not specified
Odour threshold;	Information not specified
pH;	5-8
Melting point/freezing;	Information not specified
Initial boiling point and boiling range;	Information not specified

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Flash point;	Information not specified
Evaporation rate;	Information not specified
Flammability (solid, gas);	Information not specified
Upper /lower flammability or explosive limits;	Information not specified
Vapour Pressure;	Information not specified
Vapour density;	Information not specified
Specific gravity;	1.1
Solubility (ies);	soluble in water
Partition coefficient: n-octanol/water;	Information not specified
Auto ignition temperature;	Information not specified
Decomposition temperature;	Information not specified

**9.2 Other Information** No other relevant information available

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## 10. STABILITY AND REACTIVITY

<b>10.1 Reactivity</b>	Unknown
<b>10.2 Chemical Stability</b>	Stable under normal conditions
<b>10.3 Possibility of hazardous reactions</b>	Information not available
<b>10.4 Conditions to avoid</b>	Extremes of temperature
<b>10.5 Incompatible materials</b>	None known
<b>10.6 Hazardous decomposition products</b>	Possible irritant fumes

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## 11. TOXICOLOGICAL INFORMATION

**11.1 Information on toxicological effects** The mixture has not been assessed for toxicological effects, the mixture classification is given in section 2 based on individual component contents. Individual component hazards are given in section 3

### Toxicological information on hazardous ingredients:

#### Potassium nitrate

Acute toxicity:	Not classified (Based on available data, the classification criteria are not met)
LD50 oral rat	3750 mg/kg OECD Guideline 405
LD50 dermal rat	> 5000 mg/kg bw/day OECD Guideline 402
LC50 inhalation rat (mg/l)	> 0,527 mg/l/4h OECD Guideline 403
ATE (oral)	3750 mg/kg
Skin corrosion/irritation:	Not classified (Based on available data, the classification criteria are not met)
pH: 6 - 9 (5 %)	
Explanation skin corrosion/irritation:	OECD 402: Data obtained by analogy conclusion
Serious eye damage/irritation:	Not classified (Based on available data, the classification criteria are not met)
pH: 6 - 9 (5 %)	
Explanation serious eye damage/irritation:	OECD Guideline 437/405/EU B.5.
Respiratory or skin sensitisation:	Not classified (Based on available data, the classification criteria are not met)
Explanation respiratory or skin sensitisation:	OECD Guideline 429/EU B.42
Germ cell mutagenicity:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity:	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity:	Not classified (Based on available data, the classification criteria are not met)
Explanation reproductive toxicity	
NOAEL:	1,500 mg/kg/day (general toxicity / reproduction/developmental toxicity)
Specific target organ toxicity (single exposure):	Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity (repeated exposure):	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard:	Not classified (Based on available data, the classification criteria are not met)
Explanation aspiration hazard:	Data lacking
Potential Adverse human health effects and symptoms:	When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

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## 12. ECOLOGICAL INFORMATION

**12.1 Ecotoxicity** Not classified as harmful to the environment.

#### Potassium nitrate:

Ecology - general: Classification concerning the environment:	not applicable.
Ecology - water: Mild water pollutant (surface water). Ground water pollutant.	
Maximum concentration in drinking water:	50 mg/l (nitrate) (Directive 98/83/EC).
Not harmful to fishes (LC50 (96h)	>1000 mg/l).
Slightly harmful to invertebrates (Daphnia) (EC50 (48h):	100 - 1000 mg/l).
May cause eutrophication. Slightly harmful to plankton (EC50:	100 - 1000 mg/l).
<b>12.2 Persistence and degradability</b>	Information not available

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<b>12.3 Bioaccumulative potential</b>	Information not available
<b>12.4 Mobility in soil</b>	Information not available
<b>12.5 Results of PBT and vPvB</b>	Not classified
<b>12.6 Other adverse effects</b>	Information not available

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**13. DISPOSAL CONSIDERATIONS**

<b>13.1 Waste Treatment Methods</b>	Use only licensed waste disposal companies. Do not re-use empty containers for any purpose.
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**14. TRANSPORT INFORMATION**

<b>14.1 UN number:</b>	Product is unclassified for transport
<b>14.2 UN proper shipping name:</b>	Product is unclassified for transport
<b>14.3 Transport hazard:</b>	Product is unclassified for transport
<b>14.4 Packing group:</b>	Product is unclassified for transport
<b>14.5 Environmental hazards:</b>	Product is unclassified for transport.
<b>14.6 Special precautions for user:</b>	Not specified
<b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code</b>	Applicable for Maritime bulk transport only. Check with carrier.

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**15. REGULATORY INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.**

This substance is classified and labelled in accordance with regulation 1999/45/EC, 1272/2008, the statutory instrument No.716 2009 Chemicals (Hazard Information and Packaging) regulations and the EC Fertiliser Regulations 2003, Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC)

<b>15.2 Chemical Safety Assessment</b>	CSA not undertaken for this substance
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**16. OTHER INFORMATION****Other Hazard Information assigned to individual ingredients, but not carried to final classification:**

H272:	May intensify fire; oxidiser.
H302:	Harmful if swallowed.
H315:	Causes skin irritation.
H319:	Causes serious eye irritation.
H410:	Very toxic to aquatic life with long lasting effects.

**SDS information:** This safety data sheet is compiled using data submitted for raw materials and practical experience. This Safety Data Sheet is prepared in compliance with Directive 1999/45/EC, 1272/2008 and Annex I of the REACH regulation 453/2010.

THE INFORMATION GIVEN HEREIN IS, TO THE BEST OF OUR KNOWLEDGE, CORRECT AND IS PRESENTED IN GOOD FAITH BUT NO WARRANTY, EXPRESSED OR IMPLIED IS GIVEN.