



**Agricultural Agencies cc**

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## MSDS – MATERIAL SAFETY DATA SHEET

LAST REVISED: **JANUARY 2008**  
MSDS NR: TAA18

### TSAMA MIX

#### 1. IDENTIFICATION OF THE SUBSTANCE

**Product Identification:** Blue/green powder  
**Use:** A trace element mixture for foliar application, fertigation or pivot application.  
**UN No:** Not regulated  
**Supplier:** P O Box 1372  
Plettenberg Bay  
6600  
Tel (044) 533 1645  
Fax (044) 533 2790  
  
**Emergency number:** (044) 533 1645

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

<b>COMPOSITION:</b>	*Zinc	(Zn)	50 g/kg
	*Copper	(Cu)	20 g/kg
	*Iron	(Fe)	25 g/kg
	*Manganese	(Mn)	70 g/kg
	Boron	(B)	20 g/kg
	Molybdenum	(Mo)	1 g/kg

\*EDTA Chelated

### 3. HAZARDS IDENTIFICATION

#### Emergency Overview

- May cause mild eye and skin irritation.
- Mildly harmful if excessive quantities have been ingested.

#### Potential Health Effects

*Inhalation:*

Not harmful if inhaled.

*Ingestion:*

Mildly harmful if ingested.

*Skin Contact:*

Causes mild skin irritation. Not significantly absorbed through the intact skin.

*Eye Contact:*

Causes mild irritation to eyes.

*Chronic Exposure:*

None observed where product is used under conditions of good industrial hygiene.

*Aggravation of Pre-existing Conditions:*

No information found.

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### 4. FIRST AID MEASURES

*Inhalation:*

Remove from exposure to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Keep person at rest and warm. Treat symptomatically and supportively as and when required. Obtain medical advice if necessary.

*Ingestion:*

Have victim rinse mouth thoroughly with water. Give  $\frac{1}{2}$  to one glass of water or milk to dilute the material if victim is alert and not convulsing. Do NOT induce vomiting. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water. Never give anything by mouth to an unconscious person. Seek medical advice immediately.

*Skin Contact:*

Remove any contaminated clothing. Wash skin with soap or mild detergent and water for at least 15 minutes. Get medical attention if irritation develops or persists. Wash clothing before re-use.

*Eye Contact:*

Immediately flush eyes with cold water for at least 15 minutes, lifting lower and upper eyelids occasionally. Do NOT allow victim to rub or keep eyes closed. Get medical attention immediately.

*Note to Physician:*

Treat symptomatically and supportively.

## 5. FIRE FIGHTING MEASURES

*Fire:*

Not considered to be a fire hazard.

*Fire Extinguishing Media:*

Extinguish with water spray, carbon dioxide, foam, and dry chemical.

*Special Information:*

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full-face piece operated in the pressure demand or other positive pressure mode. Fire may produce irritating or poisonous vapours, mists or toxic gasses.

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## 6. ACCIDENTAL RELEASE MEASURES

Ventilate area of spill. Avoid breathing dust. Clear the affected area and protect people. Wear appropriate personal protective equipment as specified in Section 8.

*Small Spills:* Wash away with plenty of water. Do not contaminate waterways, sewers basements or confined areas.

*Large Spills:* Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust. Following product recovery, flush area with water. Do not contaminate waterways, sewers, basements or confined areas. Place all spill residues in an appropriate container and dispose of in accordance with local regulations.

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## 7. HANDLING AND STORAGE

*Handling:*

Wash thoroughly after handling. Do not get in eyes, on skin or on clothing. Do not ingest or inhale. Use with adequate ventilation. Observe all warnings and precautions listed for the product.

*Storage:*

Keep in tightly closed container in a shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Protect against physical damage and frost. Do not contaminate water, food, or feed by storage or disposal.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

*Ventilation system:*

In general, dilution ventilation is a satisfactory health hazard control for this substance. However, if conditions of use create discomfort to the worker, a local exhaust system should be considered.

*Skin Protection:*

Wear suitable personal protective equipment i.e. overalls, rubber gloves and boots.

*Eye Protection:*

Use chemical safety goggles and/or full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

*Respiratory:*

It is recommended that a dust mask must be worn when handling this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Powder  
**Colour:** Blue/green  
**Odour:** None  
**Solubility:** Soluble in water  
**pH (5% soln):** 6.5  
**Boiling Point:** > 100 °C

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## 10. STABILITY AND REACTIVITY

**Stability:** Stable under ordinary conditions of use and storage.  
**Conditions to avoid:** High humidity and long term exposure to air.  
**Incompatibilities:** None known.  
**Hazardous Polymerisation:** Will not occur.  
**Thermal Decomposition:** Toxic fumes (oxides of sulphur and manganese) are released when the product decomposes on heating.

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## 11. TOXICOLOGICAL INFORMATION

No information found.

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## 12. ECOLOGICAL INFORMATION

**Environmental Fate:** All nutrients present are found in nature and are persistent.  
**Environmental Toxicity:** The product is water soluble and thus aquatically mobile. High concentrations in watercourses may be injurious to aquatic life.

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## 13. DISPOSAL CONSIDERATIONS

Contaminated absorbents, surplus product (in diluted form), etc., should be buried in approved landfill. Comply with any local legislation applying to waste disposal. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Dispose of container and unused contents in accordance with local requirements.

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## 14. TRANSPORT INFORMATION

Non-Hazardous

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## 15. REGULATORY INFORMATION

**EC Classification:** No information found.

**National legislation:** National Road Traffic Act, 1996 (Act 93 of 1996).  
Fire Brigade Service Act, 1987 (Act 99 of 1987).  
Occupational Health and Safety Act, 1993 (Act 85 of 1993).

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## 16. OTHER INFORMATION

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.

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