



Material Safety Data Sheet

Date of issue 1/14/2005	Date of revision 18/11/2014	Limagro MSDS N° 28
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1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

1.1 Identification of the Product

Designation	Micro Nutrient mixture
Trade name	GROGREEN GROMIX MS
CAS Number	Preparation - therefore not relevant
EINECS Name/Number	Preparation - therefore not relevant
IUPAC Name	Preparation - therefore not relevant
Molecular formula	Preparation - therefore not relevant

1.2 Application of the Product

Primary use Water-soluble micro nutrient mix for fertigation and foliar application

1.3 Company

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1.4 Emergency calls

LIMA EUROPE NV	+32-3-8447370
Health Emergencies	Contact your local Poison Center

2. COMPOSITION/INFORMATION ON INGREDIENTS

2.1 Nature of ingredients and concentration

Mixtures contain Ethylenediaminetetracetic acid ferric/manganese/zinc/copper-sodium complex, Diethylenetriamine-pentacetic acid ferric-sodium complex, sodium molybdate, boric acid.

2.2 classification

Not classed as hazardous material according to EC Directive 1999/45/EG and modification by 2001/60/EG.

3. HAZARDS IDENTIFICATION

3.1 Human health

The product is basically harmless when handled correctly. However, the following points should be noted.

<i>Skin Contact:</i>	Prolonged contact may cause some irritation.
<i>Eye Contact:</i>	May cause irritation following contact.
<i>Ingestion:</i>	Small quantities are unlikely to cause toxic effect. Large quantities may give rise to gastro-intestinal disorders.
<i>Inhalation:</i>	High dust concentrations of air-borne material may cause irritation of the nose and upper respiratory tract with symptoms such as sore throat and coughing.
<i>Long term effects:</i>	No adverse effects are known.

3.2 Environment

As this fertilizer contains plant nutrients, heavy spillage may cause adverse environmental impact such as eutrophication in confined surface waters. (See Section 12.)

3.3 Other

Fire, heating and detonation:

- On decomposition, water vapor and toxic gases such as nitrogen oxides and ammonia may be given off.
- Use waterspray, foam, Carbon dioxide, dry chemical powder as extinguishing media.



4. FIRST-AID MEASURES

4.1 Product

- Skin Contact:* Wash the affected area with soap and water. Get medical aid if irritation persists or develops.
- Eye Contact:* Flush/irrigate eye, including under the lids, with copious amounts of water for at least 10 minutes. Obtain medical attention if eyes irritation persists.
- Ingestion:* Do not induce vomiting. Give water or milk to drink. Obtain medical attention if more than a small quantity has been swallowed.
- Inhalation:* Remove victim to fresh air immediately. Keep warm and at rest. Obtain medical attention if ill effects occur.

4.2 Fire and decomposition products

- Skin Contact:* Wash areas in contact with molten material copiously with cold water. Obtain medical attention.
- Inhalation:* Remove from the source of exposure to fumes. Keep warm and at rest. Give oxygen, especially if the person is blue in the face. Artificial respiration should only be applied if breathing fails.

5. FIRE-FIGHTING MEASURES

- There are no fire and explosion hazards. The fertilizer is a non-flammable substance, but will support combustion.
- If the fertilizer is involved in the fire, call the fire brigade.
- Avoid breathing the fumes (toxic). Stand up-wind of the Fire.
- Wear protective clothing and use a self-contained breathing apparatus.
- Use plenty of water. Open doors and windows of the store to give maximum ventilation.

6. ACCIDENTAL RELEASE MEASURES

- Keep away from combustible and reducing agents.
- Any spillage of fertilizer should be cleaned up promptly, swept up and placed in a clean labeled open container for safe disposal.
- Take care to avoid the contamination of watercourses and drains and inform the appropriate authority in case of accidental contamination of watercourses. Material is non-toxic to aquatic organisms but could cause undesirable aquatic growth.

7. HANDLING AND STORAGE

7.1 Handling

- Avoid excessive generation of dust.
- Avoid unnecessary exposure to the atmosphere to prevent moisture pick-up.
- Wear gloves when handling the product over long periods.

7.2 Storage

- Locate away from the source of heat or fire.
- Keep away from combustible materials and substances mentioned under Section 10.3.
- Ensure high standard of housekeeping in the storage area.
- Do not permit smoking and the use of naked lights in the storage areas.
- Restrict stack size (according to local regulations) and keep at least 1m distance around stacks of bagged products.
- Any building used for the storage should be dry and well ventilated.
- Product is stable for at least 2 years if stored according to the directives

8. EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Occupational exposure limits

- The dust is generally regarded as a nuisance dust with no specific official Occupational Exposure Limit. Do not breath dust. Use dust mask in case of dust formation.

8.2 Precautionary and engineering measures

Avoid high dust concentration and provide ventilation where necessary.



8.3 Personal Protection

- Wear suitable gloves when handling the product over long periods.
- Use suitable dust respirator if dust concentration is high.
- After handling product, wash hands and observe good hygiene practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Green/brown crystalline powder, unless deliberately colored during manufacture.
Odor	Odorless.
pH water solution (100g/)	Usually > 4.5.
Melting point	Depends on composition. May decompose before melting.
Boiling point	Not relevant.
Oxidizing properties	Not classed as an oxidizing material according to Directive 1999/45/EG.
Bulk density	Normally between 500-1100kg/m ³ .
Solubility in water	Completely soluble in water.

10. STABILITY AND REACTIVITY

10.1 Stability

The product is stable under normal conditions of storage, handling and use.

10.2 Conditions to avoid

- Contamination by incompatible materials (see section 10.3).
- Unnecessary exposure to the atmosphere.
- Closeness to sources of heat or fire.
- Welding or hot work on equipment or plant which may have contained fertilizer without first washing thoroughly to remove all fertilizer.

10.3 Materials to avoid

None known

10.4 Hazardous reactions/decomposition products

Nitrous gases may be produced.

11. TOXICOLOGICAL INFORMATION

11.1 General

See Section 3.1. (Not on any carcinogenicity list).

11.2 Toxicity Data

Product toxicity would depend on the composition.

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|--|---------------------------------|--------------|
| • Ethylenediaminetetracetic acid complexes: | LD ₅₀ (oral, rabbit) | >1000 mg/kg |
| • Diethylenetriaminepentacetic acid complexes: | LD ₅₀ (oral, rat) | > 2000 mg/kg |

12. ECOLOGICAL INFORMATION

No experimental ecological data are available on the preparation as such; From structurally related products the following may be expected:

Degradation Biotic: Not readily biodegradable

13. DISPOSAL CONSIDERATIONS

Depending on degree of contamination, dispose of by use as fertilizer on farm or to an authorized waste facility. Take care to avoid the contamination of watercourses and drains. Inform the appropriate water authority in the event of accidental watercourse contamination.



14. TRANSPORT INFORMATION

14.1 UN classification

Not classified i.e. considered non-hazardous material according to the United Nations Recommendations on the Transportation of Dangerous Goods (UN Orange Book) and international transport codes e.g. RID (rail), ADR (road) and IMDG (sea).

15. REGULATORY INFORMATION

15.1 EEC Directives

- Regulation (EC) N° 2003/2003 of the European Parliament and of the council of 13 October 2003 relating to fertilizers

16. OTHER INFORMATION

The information in this safety data sheet is given in good faith and belief in its accuracy based on our knowledge of the substance/preparation concerned at the date of publication. It does not imply the acceptance of any legal liability or responsibility whatsoever by the Company for the consequences of its use or misuse in any particular circumstances.

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