



Billericay Farm Services Limited

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: LIQUITECH MANGANESE 15%
Chemical Name: -
Synonyms: -
Group Name: -
Formula: -
Approved Use: Agricultural Fertiliser (Foliar feed)
Supplier: Billericay Farm Services Ltd.
Downham
Billericay
Essex
CM11 1QU
Telephone No: 01268 710237
Fax No: 01268 711040
Issued By: Billericay Farm Services Ltd.

EMERGENCY TELEPHONE NUMBER: PLEASE ADD

2. COMPOSITION/INFORMATION ON INGREDIENTS

No. **Name**
1. Manganese sulphate.
2. Water.

No.	CAS No.	R Phrases	Concentration	Classification
1.	7785-87-7	R48	30 % w/w	Xn,N
2.	-	-	to 100%	Ik

Legend: Tx = Very Toxic, C = Corrosive, Xn = Harmful, Xi = Irritant, Ik = No Classification Required, E = Explosive, O = Oxidising, Fx = Extremely Flammable, F = Very Flammable, Fo = Flammable, N = Dang. To the Environment, M = Genotoxic, A = Sensitizing, K = Carcinogenic, R = Causes birth defects, H = skin absorption

3. HAZARDS IDENTIFICATION

Harmful by inhalation and if swallowed.



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4. FIRST-AID MEASURES

General:	Always seek medical advice in cases of serious personal contamination.
Inhalation:	Not specifically applicable.
Skin Contact:	Rinse with plenty of water.
Eye Contact:	Rinse immediately with plenty of water (for at least 20 minutes).
Ingestion:	Rinse mouth out with water.
Medical Information:	For specialist advice doctors should contact the nearest Poisons Information Centre .

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	All extinguishing agents can be used.
Unsuitable Extinguishing Media:	None to our knowledge.
Special Exposure Hazards:	Aqueous liquid. Does not present any particular risk in the event of fire.
Protective Equipment:	Respiratory protective device with a combined gas and particle filter. Appropriate gloves. Safety glasses.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Respiratory protective device with a combined gas and particle filter. Appropriate gloves. Safety glasses.
Environmental Precautions:	Do not discharge in to drains or rivers.
Methods for Cleaning Up:	Absorb the product onto porous material ie wood shavings or adsorbant clay. Recover the product by scooping with a bucket or jug.

7. HANDLING AND STORAGE

Handling:	Handle and use in accordance with good occupational hygiene and safety practice.
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Storage: Store away from food, drink, and animal feeding stuffs.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautions: Wash hands before meals and after work.
Avoid breathing mist whilst spraying
Store in original container, tightly closed in a safe place.
Store away from children, pets, livestock and foodstuffs.

Protective Clothing: Respiratory protective device with a combined gas and particle filter. (applicable if fine mist is present)
Appropriate gloves made of PVC.
Safety glasses with side shields.
Light overall.

Occupational Exposure Limits: *Manganese*
OES: 1 mg/m³ (Long term exposure limit - 8h TWA reference period).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, pink liquid.
Odour: None.
pH: 4 - 5 (product as is)
Boiling Point/Boiling Range: Approximately 100 °C
Flash Point: Not applicable.
Flammability: Not applicable.
Autoflammability: Not applicable.
Explosive Properties: Not applicable.
Oxidizing Properties: Non-oxidising.
Relative Density: 1.36 +/- 0.02 g/cm³ (at 20 °C)
Solubility (water and fat): Miscible in water (in all proportions)
Insoluble in common organic solvents.

10. STABILITY AND REACTIVITY

Conditions to Avoid: No dangerous reactions under normal conditions of use.
Materials to Avoid: None known.
Hazardous Decomposition Products: On combustion or on thermal decomposition the following are released: Sulphur oxides and Carbon oxides.



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11. TOXICOLOGICAL INFORMATION

Acute Toxicity: *Manganese sulphate:*
Harmful if swallowed.
Harmful by inhalation.

Irritation: May cause slight temporary irritation.

12. ECOLOGICAL INFORMATION

Mobility: Ultimate destination of the product: Soil.
Degradability: Inert mineral product. Not degradable.

13. DISPOSAL CONSIDERATIONS

Product and Waste: Dispose of at a licensed site.
Containers: Recycle following cleaning or dispose of at a licensed site.

14. TRANSPORT INFORMATION

Special Transport Precautions: None.
Road/Rail Classification: Not restricted.
IMDG Classification: Not restricted.
Air Classification: Not restricted.

15. REGULATORY INFORMATION

R-Phrases

R20 Harmful by inhalation.
R22 Harmful if swallowed.
R48 Danger of damage to health due to prolonged exposure.

S-Phrases

S23 Do not breathe spray.



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16. OTHER INFORMATION

Revision No. 0

Date Prepared: 07/03/2005

DISCLAIMER

The information in the MSDS relates to this specific material. If the product is used as a component in any other product, this MSDS may not be valid. The information contained was obtained from sources which we believe are reliable. The information is provided without any warranty, expressed or implied, regarding its correctness.

This Material Safety Data Sheet was prepared according to Directive 93/112/EEC.