



Turf Manganese

Material Safety Data Sheet



Revision Date: 13/01/2020

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product identifier

Product Name: Turf Manganese

1.2 Relevant identified uses of the substance or mixture and uses advised against

Liquid fertiliser for use on turf, grass and lawns.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Growing Solutions Ltd
Winterview Farm
Parr Lane
Ecclestone
Chorley
Lancashire
PR7 5RP
United Kingdom
Telephone: +44 (0) 1772 454724
Email: info@growingsolutionsltd.com

1.4 Emergency telephone number:

0870 243 2241 or +44 (0)20 7771 5310 – United Kingdom Poisons Information Centre

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

| <u>Hazard Class</u> <u>And Category Code</u> | <u>Hazard</u> <u>Statement Code</u> | <u>Hazard</u> <u>Statement</u> |
|---|--|--|
| Aquatic Chronic 1 Reproductive 1B | H411 H360FD | Toxic to aquatic life with long lasting effects. May damage fertility and unborn child. |

2.2 Label Elements

Hazard pictograms





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Signal word
Danger

Hazard statements

H411 Toxic to aquatic life with long lasting effects.
H360FD May damage fertility and unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P102 Keep out of reach of children.
P402 + P404 Store in a dry place. Store in a closed container.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists get medical advice/attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Hazardous ingredient(s):

| <u>Description</u> | <u>CAS No.</u> | <u>EC Number</u> | <u>Concentration in mixture</u> |
|--------------------|----------------|------------------|---------------------------------|
| Manganese Sulphate | 1344-43-0 | 215-695-8 | 10 - 20% w/w |

4. FIRST AID MEASURES

4.1 Description of first aid measures

After skin contact: Immediately rinse with water.
After eye contact: Rinse opened eye for several minutes under running water. If eye irritation continues, seek medical advice/attention.
After swallowing: DO NOT INDUCE VOMITING. Wash out mouth with water and give water to drink. Seek medical attention immediately if symptoms persist or develop.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media



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Suitable extinguishing agents:

Water haze
Foam
Carbon dioxide
Fire-extinguishing powder

5.2 Special hazards arising from the substance or mixture

No further relevant information available.

5.3 Advice for firefighters

Protective equipment: Wear complete protective clothing and self-contained respiratory protective device.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Wear suitable protective clothing, glove and eye/face protection.

6.2 Environmental precautions

Prevent further spillage if safe. Do not allow product to enter sewers / surface or ground water.

6.3 Methods and material for containment and cleaning up

For large spills: Collect and reuse if possible.
Otherwise: Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

6.4 Reference to other sections

See section 8 for information on personal protection equipment.
See section 13 for disposal information.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Handling: Keep container tightly closed. Use personal protective equipment. Avoid contact with skin and eyes. Do not breathe vapours or spray mist.
Hygiene Measures: Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands after use. Remove all contaminated clothing immediately.

7.2 Conditions for safe storage, including any incompatibilities



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Storage: Keep only in the original container. Keep away from heat and in a well ventilated place. Store in a cool dry place (store above 5degrees C.). Keep away from food, drink and animal food stuffs. Keep out of reach of children and babies.

Suitable packaging: Plastic UN approved containers.

7.3 Specific end uses

No Information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure limit values have not been determined for this mixture.

8.2 Exposure controls

Appropriate engineering controls: Refer to protective measures listed in sections 7 and 8.

| | | |
|--|--------------------------------|--|
| Individual protection measures: | Respiratory protection: | In case of brief exposure or low pollution, use breathing filter apparatus. In case of intensive or pro-longed exposure use self-contained breathing apparatus. |
| | Hand protection: | Protective gloves must be worn. The following materials are suitable; PVC or Nitrile rubber. |
| | Eye protection: | Safety glasses or face shield giving complete protection to the eyes. |
| | Skin / body protection: | Impervious clothing / chemical resistant apron. |
| | Foot protection: | Impervious safety boots. |

Environmental exposure controls: **General advice:** Do not flush into surface water or sewer.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| | |
|--|--------------------------------|
| Appearance: | Liquid |
| Colour: | Dark brown |
| Odour: | Odourless |
| Odour Threshold: | No information available. |
| pH: | N/A |
| Melting point / Freezing point: | No information available. |
| Boiling point / Boiling range: | No information available. |
| Flash point: | No information available. |
| Flammability: | This product is not flammable. |
| Upper explosive limits: | No information available. |
| Lower explosive limits: | No information available. |
| Vapour pressure: | No information available. |



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| | |
|---|---------------------------|
| Vapour density: | No information available. |
| Relative density: | 1.15 – 1.2 |
| Water solubility: | Soluble |
| Partition coefficient n-octanol / water: | No information available. |
| Ignition temperature: | No information available. |
| Decomposition temperature: | No information available. |
| Viscosity: | No information available. |
| Explosivity: | No information available. |
| Oxidising properties: | No information available. |

9.2 Other information

No information available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No information available.

10.2 Chemical stability

Stable under normal conditions of use.

10.3 Possibility of hazardous reactions

No information available.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Irritant gases.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

| | |
|--------------------|---------------------------|
| Oral: | No information available. |
| Inhalation: | No information available. |
| Dermal: | No information available. |



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Irritation:

Skin: No information available.

Eyes: No information available.

Sensitisation: No information available.

CMR Effects:

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Reproductive toxicity: No known significant effects or critical hazards.

Specific target organ toxicity:

Single exposure: No known significant effects or critical hazards.

Repeated exposure: No known significant effects or critical hazards.

Aspiration toxicity: No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic Toxicity: Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

Additional ecological information

General notes: Do not allow product to enter surface water or sewer.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects



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No information available.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: Disposal together with normal waste is not allowed. Special disposal is required in accordance to local regulations.

Contaminated packaging: Empty contaminated containers thoroughly. They can be recycled after thorough and proper cleaning. Packaging that cannot be cleaned are to be disposed of in the same manner as the product.

14. TRANSPORT INFORMATION

14.1 UN number

UN 3082

14.2 UN proper shipping name

ADR: Environmentally Hazardous Substance, Liquid, N.O.S. (Manganese Sulphate)

RID: Environmentally Hazardous Substance, Liquid, N.O.S. (Manganese Sulphate)

IMDG: Environmentally Hazardous Substance, Liquid, N.O.S. (Manganese Sulphate)

14.3 Transport hazard class (es)

ADR class 9

(Labels; Classification Code; 9; C1; 80; (E)

**Hazard identification No;
Tunnel restriction code)**

RID class 9

(Labels; Classification Code; 9; C1; 80;
Hazard identification No)

IMDG class 9

(Labels; EmS) 9; F-A, S-B

14.4 Packing group

ADR: III



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RID: III
IMDG: III

14.5 Environmental hazards

Labelling according to 5.2.1.8 ADR: No
Labelling according to 5.2.1.8 RID: No
Labelling according to 5.2.1.6.3 IMDG: No

14.6 Special precautions for user

Do not allow product to enter sewers / surface or ground water

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

IMDG: EMS-NUMBER: F-A, S-B MARINE POLLUTANT: No

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Labelling according to Regulation (EC) No 1272/2008 GHS Label elements

15.2 Chemical safety assessment

No information available.

16. OTHER INFORMATION

Further Information: The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage, transportation, disposal and handling of the material designated and should not be considered a warranty or quality specification. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.