

**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

**Product name:** FIELDER MN 350

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.3. Details of the supplier of the safety data sheet**

**Company name:** Fielder Ltd

The Paddocks

Longden

Shrewsbury

Shropshire

SY5 8EX

United Kingdom

**Tel:** 01743 860924

**Fax:** 01743 860977

**Email:** fielderag@farming.co.uk

**1.4. Emergency telephone number**

**Emergency tel:** 01743 860924

(office hours only)

**Section 2: Hazards identification****2.1. Classification of the substance or mixture**

**Classification under CLP:** Acute Tox. 4: H302; Aquatic Chronic 2: H411; Skin Corr. 1C: H314; STOT RE 2: H373

**Most important adverse effects:** Harmful if swallowed. Causes severe skin burns and eye damage. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

**2.2. Label elements****Label elements:**

**Hazard statements:** H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H373: May cause damage to organs through prolonged or repeated exposure.

H411: Toxic to aquatic life with long lasting effects.

**Hazard pictograms:** GHS05: Corrosion

GHS07: Exclamation mark

GHS08: Health hazard

GHS09: Environmental

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**Signal words:** Danger

**Precautionary statements:** P260: Do not breathe dust/fumes/gas/mist/vapours/spray.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.  
Rinse skin with water/shower.  
P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

## 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

MANGANESE NITRATE SOLUTION - REACH registered number(s): 01-2119487993-17

EINECS	CAS	PBT / WEL	CLP Classification	Percent
-	10377-66-9	-	Acute Tox. 4: H302; Skin Corr. 1C: H314; Eye Dam. 1: H318; STOT RE 2: H373; Aquatic Chronic 3: H412	50-70%

MANGANESE SULPHATE - REACH registered number(s): 01-2119456624-35

232-089-9	7785-87-7	-	STOT RE 2: H373; Aquatic Chronic 2: H411	10-30%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin.  
Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning.
- Eye contact:** Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
- Ingestion:** Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure

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the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

**Skin contact:** Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

**Eye contact:** Corneal burns may occur. May cause permanent damage.

**Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

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

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** Corrosive. In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Refer to section 8 of SDS for personal protection details.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

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

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

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## 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.  
Do not handle in a confined space. Avoid the formation or spread of mists in the air.

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

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

**Specific end use(s):** PC12: Fertilisers.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

**Hazardous ingredients:**

#### MANGANESE NITRATE SOLUTION

**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.2	-	-	-

#### MANGANESE SULPHATE

EU	0.5 mg/m3	-	-	-
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### DNEL/PNEC Values

**Hazardous ingredients:**

#### MANGANESE SULPHATE

Type	Exposure	Value	Population	Effect
DNEL	Dermal	4.14ug/kg/day	Workers	Systemic
DNEL	Inhalation	0.2mg/m3	Workers	Systemic
DNEL	Dermal	2.1ug/kg/day	Consumers	Systemic
DNEL	Inhalation	0.043mg/m3	Consumers	Systemic
PNEC	Fresh water	0.0128mg/l	-	-
PNEC	Marine water	0.4ug/l	-	-

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PNEC	Fresh water sediments	11.4ug/kg	-	-
PNEC	Marine sediments	1.4ug/kg	-	-
PNEC	Soil (agricultural)	25.1mg/kg	-	-
PNEC	Microorganisms in sewage treatment	56mg/l	-	-

## 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Impermeable gloves.

**Eye protection:** Tightly fitting safety goggles. Ensure eye bath is to hand.

**Skin protection:** Impermeable protective clothing.

**Environmental:** The floor of the storage room must be impermeable to prevent the escape of liquids.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Flowable suspension

**Colour:** Pale pink

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** No data available.

**Viscosity:** No data available.

**Boiling point/range°C:** No data available.

**Flammability limits %: lower:** No data available.

**Flash point°C:** No data available.

**Autoflammability°C:** No data available.

**Relative density:** 1.75-1.82

**VOC g/l:** No data available.

**Melting point/range°C:** No data available.

**upper:** No data available.

**Part.coeff. n-octanol/water:** No data available.

**Vapour pressure:** No data available.

**pH:** 0.0-2.0

### 9.2. Other information

**Other information:** No data available.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

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## 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

## 10.4. Conditions to avoid

**Conditions to avoid:** Heat.

## 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

## 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

**Hazardous ingredients:**

#### MANGANESE SULPHATE

DUST/MIST	RAT	4H LC50	>4.45	mg/l
ORAL	RAT	LD50	2150	mg/kg

**Relevant hazards for product:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	ING	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

**Eye contact:** Corneal burns may occur. May cause permanent damage.

**Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

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## Hazardous ingredients:

### MANGANESE NITRATE SOLUTION

DAPHNIA	48H EC50	9.8	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	14.5	mg/l

### MANGANESE SULPHATE

ALGAE	72H ErC50	61	mg/l
Daphnia magna	48H EC50	9.8	mg/l
RAINBOW TROUT (Oncorhynchus mykiss)	96H LC50	14.5	mg/l

## 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

## 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

## 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

## 12.6. Other adverse effects

**Other adverse effects:** Negligible ecotoxicity.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Dispose of waste and residues in accordance with local authority requirements.

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

**Recovery operations:** Dispose of in compliance with all local and national requirements.

**Disposal of packaging:** Empty containers should be taken care of as hazardous waste according to local and national provisions.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN3264

### 14.2. UN proper shipping name

**Shipping name:** CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

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## 14.3. Transport hazard class(es)

Transport class: 8

## 14.4. Packing group

Packing group: III

## 14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: No

## 14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: E

Transport category: 3

## Section 15: Regulatory information

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

**Specific regulations:** 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.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H411: Toxic to aquatic life with long lasting effects.

H412: Harmful to aquatic life with long lasting effects.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.