

SAFETY DATA SHEET
FIELDER MANGANESE DUO ST (MN + CU)

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Compilation date: 20/02/2019

Revision No: 1

Section 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name: FIELDER MANGANESE DUO ST (MN + CU)

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

Use of substance / mixture: Use as a horticultural / amenity fertiliser

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: Aquatic Chronic 2: H411; STOT RE 2: H373

Most important adverse effects: 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: H373: May cause damage to organs through prolonged or repeated exposure.
H411: Toxic to aquatic life with long lasting effects.

Hazard pictograms: GHS08: Health hazard
GHS09: Environmental



Signal words: Warning

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Precautionary statements: P260: Do not breathe dust/fumes/gas/mist/vapours/spray.
P273: Avoid release to the environment.
P314: Get medical advice/attention if you feel unwell.
P391: Collect spillage.
P501: Dispose of contents/container to hazardous or special waste collection point.

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

EINECS	CAS	PBT / WEL	CLP Classification	Percent
232-089-9	7785-87-7	-	STOT RE 2: H373; Aquatic Chronic 2: H411	10-30%

COPPER SULPHATE

231-847-6	7758-98-7	-	Acute Tox. 4: H302; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	1-10%
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Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Wash immediately with plenty of soap and water. Remove all contaminated clothes and footwear immediately unless stuck to skin.

Eye contact: Bathe the eye with running water for 15 minutes.

Ingestion: Do not induce vomiting. Wash out mouth with water. Consult a doctor.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down.

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

Skin contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Inhalation: No data available.

Delayed / immediate effects: No data available.

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

Section 5: Fire-fighting measures

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5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Thermal decomposition can lead to release of irritating gases and vapours

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: 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. Advise local authorities if large spills cannot be contained.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: For large spills: Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal/ Clean spillage area thoroughly with plenty of water. For small spills: Flush down the drain with plenty of water. Small spillages: Avoid the formation of dust or spray. Mop up with appropriate material. Place in an appropriate container. Clean affected area with plenty of water.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Ensure there is sufficient ventilation of the area.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area.

Suitable packaging: No specific requirements.

7.3. Specific end use(s)

Section 8: Exposure controls/personal protection

8.1. Control parameters

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Hazardous ingredients:

MANGANESE SULPHATE

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	0.5 mg/m ³	-	-	-

COPPER SULPHATE

UK	1 mg/m ³	2 mg/m ³	-	-
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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/m ³	Workers	Systemic
DNEL	Dermal	2.1ug/kg/day	Consumers	Systemic
DNEL	Inhalation	0.043mg/m ³	Consumers	Systemic
PNEC	Fresh water	0.0128mg/l	-	-
PNEC	Marine water	0.4ug/l	-	-
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.

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

Eye protection: Safety glasses.

Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Brown

Odour: Odourless

Evaporation rate: No data available.

Oxidising: No data available.

Solubility in water: No data available.

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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: 1.28 - 1.32 kg/l

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: 3.5 - 5.5

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.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid

Conditions to avoid: Extremes of temperature.

10.5. Incompatible materials

Materials to avoid: Strong bases. Strong acids. Strong oxidising agents. Strong reducing agents.

10.6. Hazardous decomposition products

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

COPPER SULPHATE

IVN	RAT	LD50	48900	µg/kg
ORL	MUS	LD50	369	mg/kg
ORL	RAT	LD50	520	mg/kg

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Relevant hazards for product:

Hazard	Route	Basis
STOT-repeated exposure	-	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: No data available.

Eye contact: No data available.

Ingestion: No data available.

Inhalation: No data available.

Delayed / immediate effects: No data available.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

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: No data available.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

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: Not applicable.

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.

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

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Section 14: Transport information

14.1. UN number

UN number: UN3082

14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(MANGANESE SULPHATE; COPPER SULPHATE)

14.3. Transport hazard class(es)

Transport class: 9

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: No

14.6. Special precautions for user

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

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.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H373: May cause damage to organs ({{{0}}|message=<or state all organs affected, if known>|filter=(_)?ORGAN_.+}}}) through prolonged or repeated exposure ({{{1}}|message=<state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>|filter=(_)?EXP_ROUTE_.+}}}).

H410: Very toxic to aquatic life with long lasting effects.

H411: Toxic to aquatic life with long lasting effects.

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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.