

SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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Man-Sul

Revision 3
Revision date 2017-01-20

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

1.1. Product identifier

Product name Man-Sul

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

Description Fertiliser.

1.3. Details of the supplier of the safety data sheet

Company	Omex Agriculture Ltd
Address	Bardney Airfield Tupholme Lincoln LN3 5TP United Kingdom
Web	www.omex.co.uk
Telephone	01526 396000
Fax	01526 396001
Email	enquire@omex.com
Email address of the competent person	Safety@omex.com

1.4. Emergency telephone number

Emergency telephone number 01526 396000
9 - 5 Mon - Fri

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification - 1999/45/EC	Xn; R48/20/22 R52/53 Symbols: Xn: Harmful.
Main hazards	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
2.1.2. Classification - EC 1272/2008	STOT RE 2: H373; Aquatic Chronic 3: H412;

2.2. Label elements

Hazard pictograms	
Signal Word	Warning
Hazard Statement	STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure . Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.

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2.2. Label elements

Precautionary Statement: Prevention	P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P273 - Avoid release to the environment.
Precautionary Statement: Response	P314 - Get medical advice/attention if you feel unwell.
Precautionary Statement: Disposal	P501 - Dispose of contents/container to

2.3. Other hazards

Other hazards	Harmful if swallowed, in contact with skin or if inhaled.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

67/548/EEC / 1999/45/EC

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification	M-factor.
Manganese sulphate	025-003-00-4	7785-87-7	232-089-9		20 - 30%	Xn; R48/20/22 N; R51/53	

EC 1272/2008

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Manganese sulphate	025-003-00-4	7785-87-7	232-089-9		20 - 30%	STOT RE 2: H373; Aquatic Chronic 2: H411;	

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. Move the exposed person to fresh air. Seek medical attention if irritation or symptoms persist.
Eye contact	May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	May cause irritation to skin. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	Harmful if swallowed. DO NOT INDUCE VOMITING. May cause irritation to mucous membranes. Seek medical attention if irritation or symptoms persist.

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

Inhalation	May cause irritation to mucous membranes.
Eye contact	May cause irritation to eyes.
Skin contact	Wash off immediately with plenty of soap and water.
Ingestion	Ingestion is irritating to the respiratory tract and may cause damage to the central nervous system.

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

Inhalation	Treat according to symptoms, no known specific antidote.
Eye contact	Remove the affected person from the source of contamination immediately.
Skin contact	Rinse immediately with plenty of water for 15 minutes holding the eyelids open.
Ingestion	Wash off immediately with plenty of soap and water.
	Ingestion may cause nausea and vomiting.

SECTION 5: Firefighting measures

5.1. Extinguishing media

	This product is not flammable. Use extinguishing media appropriate to the surrounding fire conditions.
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5.2. Special hazards arising from the substance or mixture

	Burning produces irritating, toxic and obnoxious fumes.
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5.3. Advice for firefighters

Wear suitable respiratory equipment when necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation of the working area. Wear suitable protective equipment.

6.2. Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe. Do not flush into surface water.

6.3. Methods and material for containment and cleaning up

Collect and reuse if possible. Otherwise: Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. To clean the floor and all objects contaminated by this material, use water.

6.4. Reference to other sections

See section 2, 8, 13 for further information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Ensure adequate ventilation of the working area. Avoid contact with eyes and skin. Adopt best Manual Handling considerations when handling, carrying and dispensing.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated area. Store in correctly labelled containers. Store at temperatures between 5 °C and 20 °C.

Suitable packaging

Plastic containers.

7.3. Specific end use(s)

Fertiliser.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

Manganese sulphate	WEL 8-hr limit ppm:	WEL 8-hr limit mg/m3: 0.5
	WEL 15 min limit ppm:	WEL 15 min limit mg/m3:
	WEL 8-hr limit mg/m3 total inhalable dust:	WEL 15 min limit mg/m3 total inhalable dust:
	WEL 8-hr limit mg/m3 total respirable dust:	WEL 15 min limit mg/m3 total respirable dust:

8.2. Exposure controls

8.2.1. Appropriate engineering controls	Ensure adequate ventilation of the working area.
8.2.2. Individual protection measures	Wear suitable protective clothing.
Eye / face protection	In case of splashing, wear: Eye protection. Approved safety goggles.
Skin protection - Handprotection	Chemical resistant gloves (PVC).
Respiratory protection	Wear suitable protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

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9.1. Information on basic physical and chemical properties

Appearance	Aqueous solution
Colour	Pink
Odour	Odourless
pH	4 - 5
Melting point	Not determined
Initial boiling point	Not determined
Flash point	Not applicable.
Evaporation rate	Not determined
Flammability (solid, gas)	non-flammable
Vapour pressure	Not determined
Vapour density	Not determined
Relative density	1.34 - 1.38 (H ₂ O = 1 @ 20 °C)
Partition coefficient	Not determined
Autoignition temperature	Not applicable.
Viscosity	Not determined
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Solubility	Soluble in water

9.2. Other information

Conductivity	Not determined
Surface tension	Not determined
Specific gravity	1.34 - 1.38 g/cm ³
Gas group	Not determined
Benzene Content	Not determined
Lead content	Not determined
VOC (Volatile organic compounds)	Not determined

SECTION 10: Stability and reactivity

10.1. Reactivity

	Stable under normal conditions.
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10.2. Chemical stability

	Stable under normal conditions.
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10.3. Possibility of hazardous reactions

	No data is available on this product.
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10.4. Conditions to avoid

	No data is available on this product.
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10.5. Incompatible materials

	Will not decompose if stored and used as recommended.
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10.6. Hazardous decomposition products

	No data is available on this product.
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SECTION 11: Toxicological information

11.1.4. Toxicological Information

	Not determined
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SECTION 12: Ecological information

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12.1. Toxicity

	Not determined
	No data is available on this product. May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

	Warning - this preparation contains a substance not yet tested completely.
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12.3. Bioaccumulative potential

	Caution - substance not yet fully tested.
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Partition coefficient

	Man-Sul Not determined	Manganese sulphate Not applicable.
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12.4. Mobility in soil

	Caution - substance not yet fully tested.
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12.5. Results of PBT and vPvB assessment

	Warning - this preparation contains a substance not yet tested completely.
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12.6. Other adverse effects

	Warning - this preparation contains a substance not yet tested completely.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

	Dispose of in compliance with all local and national regulations.
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General information

	Do NOT reuse empty containers.
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Disposal methods

	Can be sent to landfill if in compliance with local and national regulations.
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Disposal of packaging

	Empty containers can be cleaned with water. Empty containers can be sent for disposal or recycling.
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SECTION 14: Transport information

14.1. UN number

	The product is not classified as dangerous for carriage.
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14.2. UN proper shipping name

	The product is not classified as dangerous for carriage.
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14.3. Transport hazard class(es)

	The product is not classified as dangerous for carriage.
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14.4. Packing group

	The product is not classified as dangerous for carriage.
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14.5. Environmental hazards

	The product is not classified as dangerous for carriage.
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14.6. Special precautions for user

	The product is not classified as dangerous for carriage.
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

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

	The product is not classified as dangerous for carriage.
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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulations	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC. COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
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15.2. Chemical safety assessment

	No data is available on this product.
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SECTION 16: Other information**Other information**

Revision	This document differs from the previous version in the following areas:. 2 - 2.1. Classification of the substance or mixture. 2 - 2.1.2. Classification - EC 1272/2008. 2 - Hazard pictograms. 2 - Signal Word. 2 - Precautionary Statement: Prevention. 2 - Precautionary Statement: Response. 2 - Precautionary Statement: Disposal. 15 - Labelling. 15 - Risk phrases.
Text of risk phrases in Section 3	R48/20/22 - Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed. R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Text of Hazard Statements in Section 3	STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure . Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.

Further information

	The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. 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.
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