

# SAFETY DATA SHEET

## CROPSURE MANGANESE DF

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008



SDS #: 10253-A

Revision date: 2021-07-12

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Version 1.03

### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Code(s) 10253-A  
Product Name CROPSURE MANGANESE DF

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

Recommended Use: A soluble micronutrient for use in agriculture  
Restrictions on use: Use as recommended by the label.

#### 1.3. Details of the supplier of the safety data sheet

Manufacturer FMC Agro Limited  
Rectors Lane  
Pentre  
Flintshire  
CH5 2DH  
United Kingdom  
Tel: + 44 1244 537370  
E-mail: fmc.agro.uk@fmc.com

For further information, please contact:

Contact point Tel: +44(0) 1244 537370  
Email: fmc.agro.uk@fmc.com

#### 1.4. Emergency telephone number

Emergency telephone UNITED KINGDOM:  
  
For medical emergencies, please call: 111  
  
For leaks, fire, spills or accidents, please call:  
CHEMTREC UK (London) +(44)-870-8200418 English  
  
0870 243 2241 or +44 (0)20 7771 5310  
(United Kingdom Poisons Information Centre)

### Section 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture Regulation (EC) No 1272/2008

Serious eye damage/eye irritation	Category 1 (H318)
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Specific target organ toxicity — repeated exposure	Category 2 (H373)
Chronic aquatic toxicity	Category 2 (H411)

## 2.2. Label elements

### Hazard pictograms



**Signal Word**  
Danger

### Hazard Statements

H318 - Causes serious eye damage

H373 - May cause damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

### Precautionary Statements

P260 - Do not breathe dust

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

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

P501: Dispose of contents/container as hazardous waste.

## 2.3. Other hazards

This product is not identified as a PBT substance.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

The product is a mixture, not a substance.

### 3.2 Mixture containing the following hazardous ingredients:

Chemical name	EC-No	CAS-No	Weight percent	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Manganese Sulphate Monohydrate	-	10034-96-5	>90	Eye Dam. 1: H318; STOT RE 2: H373; Aquatic Chronic 2: H411	01-2119456624-35-XXXX

### Additional Information

For the full text of the H- and EUH- phrases mentioned in this Section, see Section 16.

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Eye Contact

Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Transfer to hospital for specialist examination.

#### Skin Contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a doctor.

#### Inhalation

Remove person from exposure ensuring one's own safety while doing so. If symptoms persist, call a doctor.

**Ingestion** Rinse mouth. Do NOT induce vomiting. Get medical attention if symptoms occur.

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

**Most important symptoms and effects, both acute and delayed**

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure. May cause permanent eye damage. Possible systemic effects through repeated exposure.

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

**Indication of immediate medical attention and special treatment needed, if necessary**

Eye bathing equipment should be available on the premises. Show this safety data sheet to the doctor in attendance.

### **Section 5: FIREFIGHTING MEASURES**

#### **5.1. Extinguishing media**

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers / tanks with water spray.

**Unsuitable extinguishing media**

No information available

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

Toxic fumes may be released in fire situations.

**Hazardous Combustion Products**

Sulphur oxides.

#### **5.3. Advice for firefighters**

As in any fire, wear self-contained breathing apparatus and full protective gear. Wear protective clothing to prevent contact with skin and eyes. Contaminated fire extinguishing water should not be discharged into drains, if preventable.

### **Section 6: ACCIDENTAL RELEASE MEASURES**

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

**Personal Precautions**

For personal protection see section 8. Stop leak if you can do it without risk. In case of spill, avoid contact. Isolate area and keep out animals and unprotected persons. Keep people away from and upwind of spill/leak. In the case of large spills (1 ton or more), alert the appropriate authorities.

For further clean-up instructions, call Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

**For emergency responders**

Use personal protection recommended in Section 8.

#### **6.2. Environmental precautions**

Do not discharge into drains or rivers. Contain the spillage using bunding. Accidental release into water courses must be alerted to the appropriate regulatory body.

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

**Methods for Containment** Cover powder spill with plastic sheet or tarp to minimise spreading.

**Methods for cleaning up** Transfer to a closable, labeled salvage container for disposal by an appropriate method. Refer to section 13 of SDS for suitable method of disposal.

**6.4. Reference to other sections**

See section 8 for more information. See section 13 for more information.

## Section 7: HANDLING AND STORAGE

**7.1. Precautions for safe handling****Handling**

Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Avoid dust formation.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities****Storage**

Keep in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from heat. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs. Keep container tightly closed. Avoid contact with water or humidity.

**7.3. Specific end use(s)****Specific Use(s)**

No data available.

**Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters**

Chemical name	Italy	Portugal	The Netherlands	Finland	Denmark
Manganese Sulphate Monohydrate 10034-96-5	-	-	-	TWA 0.02 mg/m <sup>3</sup>	-

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls**

**Engineering measures** Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment**

**Eye/Face Protection** Tightly fitting safety goggles. Provide emergency on-site eyewash.

**Hand Protection** Protective gloves. Impervious butyl rubber gloves. Wear chemical protective gloves made of materials such as nitrile or neoprene.

**Skin and Body Protection** Wear protective gloves/clothing.

**Respiratory Protection** Respiratory protective device with particle filter.

**Environmental exposure controls** Refer to specific Member State legislation for requirements under Community environmental legislation.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Physical State</b>	Dry powder
<b>Appearance</b>	No information available
<b>Odour</b>	Barely perceptible
<b>Colour</b>	Brown flecked powder
<b>Odour threshold</b>	No information available
<b>pH</b>	~7.0 (1% solution)
<b>Melting point/freezing point</b>	No information available
<b>Boiling point/boiling range</b>	No information available
<b>Flash point</b>	No information available
<b>Evaporation Rate</b>	No information available
<b>Flammability (solid, gas)</b>	
<b>Flammability Limit in Air</b>	
Upper flammability limit:	No information available
Lower flammability limit	No information available
<b>Vapour pressure</b>	No information available
<b>Vapour density</b>	No information available
<b>Specific gravity</b>	No information available
<b>Water solubility</b>	Soluble in water
<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition temperature</b>	No information available
<b>Decomposition temperature</b>	No information available
<b>Viscosity, kinematic</b>	No information available
<b>Viscosity, dynamic</b>	No information available
<b>Explosive properties</b>	No information available
<b>Oxidising properties</b>	Non-oxidizing (by EC criteria)

### 9.2. Other information

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content (%)</b>	No information available
<b>Density</b>	No information available
<b>Bulk density</b>	No information available
<b>K<sub>st</sub></b>	No information available

## Section 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None under normal use conditions

### 10.2. Chemical stability

Stable under recommended storage conditions.

#### Explosion data

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

### 10.3. Possibility of hazardous reactions

#### Hazardous polymerisation

Hazardous polymerization does not occur.

**Hazardous reactions**

None under normal processing. Decomposition may occur on exposure to conditions or materials listed below.

**10.4. Conditions to avoid**

Heat.

**10.5. Incompatible materials**

Strong oxidising agents, Strong acids.

**10.6. Hazardous decomposition products**

May emit toxic fumes under fire conditions. See Section 5.2 for more information.

**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Acute toxicity****Product Information**

**LD50 Oral** > 2000 mg/kg (rat) Acute Toxicity Estimate (ATE)

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Sensitisation</b>	No information available.
<b>Mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.

<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.

**Symptoms**

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure. May cause permanent eye damage. Possible systemic effects through repeated exposure.

**Aspiration hazard** No information available.

**Section 12: ECOLOGICAL INFORMATION****12.1. Toxicity**

**Ecotoxicity** RAINBOW TROUT (*Oncorhynchus mykiss*): 96H LC50 = 10.1 mg/L (calculated)

DAPHNIDS (Daphnia magna): 48H LC50 = 31.2 mg/L (calculated)

ALGAE (Desmodesmus subspicatus): 72H ErC50 = 63.3 mg/L (calculated)

#### 12.2. Persistence and degradability

No information available.

#### 12.3. Bioaccumulative potential

No information available.

#### 12.4. Mobility in soil

##### **Mobility in soil**

No information available.

#### 12.5. Results of PBT and vPvB assessment

This product is not identified as a PBT substance.

#### 12.6. Other adverse effects

Toxic to aquatic organisms.

### Section 13: DISPOSAL CONSIDERATIONS

#### 13.1. Waste treatment methods

<b>Waste from residues / unused products</b>	Transfer to a suitable container and arrange for collection by specialised disposal company. Alternatively, the product can be sent for water treatment. Diluted product and washings should also be sent for water treatment.
<b>Contaminated Packaging</b>	Clean container with water. Dispose of rinse water in accordance with local and national guidelines. Empty containers should be taken to an approved waste handling site for recycling or disposal.
<b>EWC Waste Disposal No</b>	02 01 08
<b>OTHER INFORMATION</b>	NOTE : The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal.

### Section 14: TRANSPORT INFORMATION

#### IMDG/IMO

<b>14.1 UN/ID no</b>	UN3077
<b>14.2 Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANGANESE SULPHATE MONOHYDRATE)
<b>14.3 Hazard class</b>	9
<b>14.4 Packing Group</b>	III
<b>14.5 Environmental Hazards</b>	Yes
<b>Environmental Hazard</b>	Yes
<b>14.6 Special Provisions</b>	None
<b>14.7 Transport in bulk according to Annex II of MARPOL and the IBC</b>	This product is not transported in bulk containers.

## Code

RID

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANGANESE SULPHATE MONOHYDRATE)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	None

ADR/RID

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANGANESE SULPHATE MONOHYDRATE)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	None

ICAO/IATA

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANGANESE SULPHATE MONOHYDRATE)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	None

## Section 15: REGULATORY INFORMATION

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

**National regulations** Seveso category in Annex I, part 2, to Dir.96/82/EC: dangerous for the environment.

**European Union****Authorisations and/or restrictions on use:**

This product does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not Applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not Applicable

**International Inventories**

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Manganese Sulphate Monohydrate 10034-96-5				X	X		X	X



**15.2. 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****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under sections 2 and 3**

H318 - Causes serious eye damage

H373 - May cause damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

**Legend**

<b>ADR:</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>CAS:</b>	CAS (Chemical Abstracts Service)
<b>Ceiling:</b>	Maximum limit value:
<b>DNEL:</b>	Derived No Effect Level (DNEL)
<b>EINECS:</b>	EINECS (European Inventory of Existing Chemical Substances)
<b>GHS:</b>	Globally Harmonised System (GHS)
<b>IATA:</b>	International Air Transport Association (IATA)
<b>ICAO:</b>	International Civil Aviation Organization
<b>IMDG:</b>	International Maritime Dangerous Goods (IMDG)
<b>LC50:</b>	LC50 (lethal concentration)
<b>LD50:</b>	LD50 (lethal dose)
<b>PBT:</b>	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
<b>RID:</b>	Regulations Concerning the International Transport of Dangerous Goods by Rail
<b>STEL:</b>	Short term exposure limit
<b>SVHC</b>	SVHC: Substances of Very High Concern for Authorisation:
<b>TWA:</b>	time weighted average
<b>vPvB:</b>	very Persistent and very Bioaccumulative

**Revision date:** 2021-07-12

**Reason for revision:** SDS sections updated.

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**End of Safety Data Sheet**