

SAFETY DATA SHEET

VERDICROP MN/CU DF

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



SDS #: 10251-A

Revision date: 2021-02-10

Format: EU

Version 1.03

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

Product Code(s) 10251-A
Product Name VERDICROP MN/CU DF

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

Recommended Use: A fertilizer with micronutrients for use in agriculture and horticulture
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 For medical emergencies in England and Wales, call 111.
For leak, fire, spill, or accident emergencies, call:
CHEMTREC UK (London) +(44)-870-8200418 (English)
or
1 703 741-5970 (CHEMTREC – International)

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)
Specific target organ toxicity — repeated exposure	Category 2 (H373)
Acute aquatic toxicity	Category 1 (H400)

Chronic aquatic toxicity	Category 2 (H411)
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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

H400 - Very toxic to aquatic life

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

P501: Dispose of contents/container as hazardous waste.

2.3. Other hazards

This product is not identified as a PBT/vPvB 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	>60	Eye Dam. 1: H318; STOT RE 2: H373; Aquatic Chronic 2: H411	01-2119456624-35-XXXX
DICOPPER CHLORIDE TRIHYDROXIDE	-	1332-65-6	10-30	Ak. Toks. 3 (H301) Ak. Toks. 4 (H332) Ak. toks. vod okol. 1 (H400)(M=10) Kron. toks. vod. okol. 2 (H411)	01-2119966120-46-XXXX
tetrasodium 2-[2-[bis(2-oxido-2-oxoethyl)amino]ethyl-(2-oxido-2-oxoethyl)amino]acetate	Present	64-02-8	<1	Acute Tox. 4 (H302+332) Eye Dam. 1 (H318) STOT RE 2 (H373)	01-2119486762-27-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. Call a doctor immediately.
Ingestion	Rinse mouth. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

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.
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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.
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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.

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.

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.

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 Surface drains within close vicinity of the spill should be covered.

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 dust formation in confined areas. Avoid contact with skin, eyes and clothing.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

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

Keep container tightly closed in a dry and well-ventilated place. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs.

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

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

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 ³	-

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.

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

Physical State	Dry powder
Appearance	Free flowing wettable powder
Odour	Odourless
Colour	Green, Brown
Odour threshold	No information available
pH	4.5 (1% solution)
Melting point/freezing point	No information available
Boiling point/boiling range	No information available
Flash point	No information available
Evaporation Rate	No information available
Flammability (solid, gas)	
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit	No information available
Vapour pressure	No information available
Vapour density	No information available
Specific gravity	No information available
Water solubility	slightly soluble
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidising properties	Non-oxidizing (by EC criteria)

9.2. Other information

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Density	No information available
Bulk density	No information available
K_{st}	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, Humid air.

10.5. Incompatible materials

Strong acids, Strong bases.

10.6. Hazardous decomposition products

May emit toxic fumes under fire conditions.

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

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

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

Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	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.
Aspiration hazard	No information available.

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

Ecotoxicity	RAINBOW TROUT (<i>Oncorhynchus mykiss</i>): 96H LC50 = 3.23 (calculated) mg/L ALGAE (<i>Pseudokirchneriella subcapitata</i>): 72H ErC50 = 2.29 (calculated) mg/L
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DAPHNID (Daphnia magna): 48H EC50 = 0.644 (calculated) mg/L

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/vPvB substance.

12.6. Other adverse effects

Toxic to aquatic organisms.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products

Dispose of in accordance with local regulations.

Contaminated Packaging

Containers must be disposed of in accordance with local regulations. Refer to the product label for container disposal instructions.

OTHER INFORMATION

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

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	Not regulated
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazards	Yes
Environmental Hazard	Yes
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	No information available

RID

14.1 UN/ID no	UN3077
14.2 Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (MANGANESE SULPHATE; COPPER OXYCHLORIDE)
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; COPPER OXYCHLORIDE)
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 Not regulated
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

European Union

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

This product is a Seveso category/named substance in Annex I of Council Directive 96/82/EC.

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/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Manganese Sulphate Monohydrate 10034-96-5				X	X		X	X
DICOPPER CHLORIDE TRIHYDROXIDE 1332-65-6	X	X	X		X	X	X	X
tetrasodium 2-[2-[bis(2-oxido-2-oxoethyl)amino]ethyl-(2-oxido-2-oxoethyl)amino]acetate 64-02-8	X	X	X	X	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**

H301 - Toxic if swallowed
H302 - Harmful if swallowed
H318 - Causes serious eye damage
H332 - Harmful if inhaled
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects
H411 - Toxic to aquatic life with long lasting effects

Legend

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

Revision date: 2021-02-10

Reason for revision: SDS sections updated.

Disclaimer

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End of Safety Data Sheet