SAFETY DATA SHEET

Mn-Zn-Cu-Seed Treatment Mix

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

SDS # : NP-0245-7-A
Revision date: 2021-06-30
Format: EU
Version 1

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

Product Code(s) NP-0245-7-A

Product Name Mn-Zn-Cu-Seed Treatment Mix

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

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*

Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)
EUH208: Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.	

2.2. Label elements

Hazard pictograms

Signal Word
WARNING

Hazard Statements
H410 - Very toxic to aquatic life with long lasting effects

EUH208 - Contains (1,2-benzisothiazolin-3-one). May produce an allergic reaction

Precautionary Statements
P273 - Avoid release to the environment
P391 - Collect spillage
P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other hazards

No information available.

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
Zinc oxide	215-222-5	1314-13-2	10-20	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119463881-32-XXXX
Copper(+1) oxide	215-270-7	1317-39-1	1-5	Acute Tox. 4 (H302) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119513794-36-XXXX
ethane-1,2-diol	203-473-3	107-21-1	1-5	Acute Tox 4 (H302) STOT RE 2 (H373)	01-2119456816-28-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 — Flush eyes with water for at least 15 minutes. Get medical attention if eye irritation develops or persists.

Skin Contact — Wash off immediately with soap and plenty of water.

Inhalation — Remove person from exposure ensuring one's own safety while doing so.

Ingestion — Clean mouth with water.

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

Most important symptoms and effects, both acute and delayed	Skin contact: May see mild irritation at the site of contact. Eye contact: Possible irritation and redness. Ingestion: Possible irritation of the throat. Inhalation: May experience irritation of the throat with a feeling of tightness in the chest. Delayed/Immediate effects: Immediate effects can be expected after short-term exposure.

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

Indication of immediate medical attention and special treatment needed, if necessary	Treat symptomatically.

Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Using spraywater to cool the containers.

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
Wear self-contained breathing apparatus and protective suit. Use personal protective equipment. 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
Isolate and post spill area. Remove all sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. For personal protection see section 8.

.

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	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Surface water drains within close vicinity of the spill should be covered. Absorb into dry earth or sand. Transfer to a closable, labelled 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
Ensure adequate ventilation.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage
Protect from frost, heat and sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep away from food, drink and animal feedingstuffs. Store rooms or warehouses should be made of non-combustible materials with impermeable floors. Store above 5°C.

7.3. Specific end use(s)

Risk Management Methods (RMM)
Not Applicable.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Chemical name	European Union	The United Kingdom	France	Spain	Germany
Zinc oxide 1314-13-2	-	-	TWA 5 mg/m ^{3} TWA 10 mg/m ^{3}	TWA 2 mg/m ^{3} STEL 10 mg/m ^{3}	-
ethane-1,2-diol 107-21-1	TWA 20 ppm TWA 52 mg/m ^{3} STEL 40 ppm STEL 104 mg/m ^{3} S*	STEL 40 ppm STEL 104 mg/m ^{3} STEL 30 mg/m ^{3} TWA 10 mg/m ^{3} TWA 20 ppm TWA 52 mg/m ^{3} Skin	TWA 20 ppm TWA 52 mg/m ^{3} STEL 40 ppm STEL 104 mg/m ^{3} P*	TWA 20 ppm TWA 52 mg/m ^{3} STEL 40 ppm STEL 104 mg/m ^{3} S*	-
Chemical name	**Italy**	**Portugal**	**The Netherlands**	**Finland**	**Denmark**
Zinc oxide 1314-13-2	-	TWA 2 mg/m ^{3} STEL 10 mg/m ^{3}	-	TWA 2 mg/m ^{3} STEL 10 mg/m ^{3}	TWA 4 mg/m ^{3}
Copper(+1) oxide 1317-39-1	-	-	-	TWA 0.02 mg/m ^{3}	-
ethane-1,2-diol 107-21-1	TWA 20 ppm TWA 52 mg/m ^{3} STEL 40 ppm STEL 104 mg/m ^{3} Pelle*	TWA 20 ppm TWA 52 mg/m ^{3} STEL 40 ppm STEL 104 mg/m ^{3} Ceiling 100 mg/m ^{3} C(A4) P*	Huid* STEL 104 mg/m ^{3} TWA 52 mg/m ^{3} TWA 10 mg/m ^{3}	TWA 20 ppm TWA 50 mg/m ^{3} STEL 40 ppm STEL 100 mg/m ^{3} iho*	TWA 10 ppm TWA 26 mg/m ^{3} TWA 10 mg/m ^{3} H*
Chemical name	**Austria**	**Switzerland**	**Poland**	**Norway**	**Ireland**
Zinc oxide 1314-13-2	TWA 5 mg/m ^{3}	TWA 3 mg/m ^{3} STEL 3 mg/m ^{3}	TWA 5 mg/m ^{3} STEL 10 mg/m ^{3}	TWA 5 mg/m ^{3} STEL 10 mg/m ^{3}	TWA 2 mg/m ^{3} STEL 10 mg/m ^{3}
ethane-1,2-diol 107-21-1	H* STEL 20 ppm STEL 52 mg/m ^{3} TWA 10 ppm TWA 26 mg/m ^{3}	SS-C** H* TWA 10 ppm TWA 26 mg/m ^{3} STEL 20 ppm STEL 52 mg/m ^{3}	TWA 15 mg/m ^{3} STEL 50 mg/m ^{3}	TWA 20 ppm TWA 52 mg/m ^{3} S* STEL 104 mg/m ^{3} STEL 40 ppm	TWA 10 mg/m ^{3} TWA 20 ppm TWA 52 mg/m ^{3} STEL 40 ppm STEL 30 mg/m ^{3} STEL 104 mg/m ^{3} Skin

Derived No Effect Level (DNEL) No information available.

Predicted No Effect Concentration (PNEC)	No information available.

8.2. Exposure controls

Engineering measures	Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Personal protective equipment

Eye/Face Protection	Safety Glasses. Eye wash bottle with pure water.
Hand Protection	Protective gloves. Nitrile rubber. Rubber gloves.
Skin and Body Protection	Wear impervious gloves and/or clothing if needed to prevent contact with the material.
Respiratory Protection	No special protective equipment required.
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	Liquid
Appearance	Liquid
Odour	Barely perceptible
Colour	Dark red
Odour threshold	No information available
pH	6.5 - 10.5
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	1.74 -1.79
Water solubility	Soluble in water
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	No information available

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

Stable under recommended storage conditions

10.2. Chemical stability

Stable under normal 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 can occur on exposure to heat or moisture.

10.4. Conditions to avoid

Heat. Extremes of temperature and direct sunlight. Do not freeze.

10.5. Incompatible materials

Strong oxidising agents. Strong acids.

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
Product does not present an acute toxicity hazard based on known or supplied information.

Skin corrosion/irritation	Mild Irritant.
Serious eye damage/eye irritation	Minimally irritating.
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.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

There is no data available for this product.

12.2. Persistence and degradability

No data is available on the product itself.

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 substance is not considered to be persistent, bioaccumulating nor toxic (PBT).

12.6. Other adverse effects

Toxic to aquatic organisms

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products	Transfer to a suitable container and arrange for collection by specialised disposal company. Alternatively, the product can be incinerated, in accordance with local regulations. The diluted product and washings should be sent to a water treatment facility. Do not contaminate ponds, waterways or ditches with chemical or used containers. Do not discharge to sewer systems.
Contaminated Packaging	Dispose of in accordance with local regulations.
EWC Waste Disposal No	02 01 08

Section 14: TRANSPORT INFORMATION

IMDG/IMO

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (zinc oxide, copper (1) oxide)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazards	Applicable
Environmental Hazard	Yes
14.6 Special Provisions	No special precautions. Tunnel code: E Transport category: 3
EmS	F-A, S-F
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code	This product is not transported in bulk containers.

RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (zinc oxide, copper (1) oxide)
14.3 Hazard class	Not regulated

14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	No special precautions. Tunnel code: E Transport category: 3

ADR/RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (zinc oxide, copper (1) oxide)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	No special precautions. Tunnel code: E Transport category: 3

ICAO/IATA

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (zinc oxide, copper (1) oxide)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Environmental Hazard	Yes
14.6 Special Provisions	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

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/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Zinc oxide 1314-13-2	X	X	X	X	X	X	X	X
Copper(+1) oxide 1317-39-1	X	X	X	X	X	X	X	X
ethane-1,2-diol 107-21-1	X	X	X	X	X	X	X	X

15.2. Chemical safety assessment

No information available

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
H302 - Harmful if swallowed
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
EUH208 - May produce an allergic reaction

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:	2021-06-30
Reason for revision:	Initial Release.

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Prepared By

FMC Corporation

End of Safety Data Sheet