SAFETY DATA SHEET

ZINC 40

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

SDS # : NP-0053-4-A
Revision date: 2020-03-20
Format: EU
Version 1.03

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

Product Code(s) NP-0053-4-A

Product Name ZINC 40

Pure substance/preparation Mixture

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

Medical emergencies:

Austria: +43 1 406 43 43
Belgium: +32 70 245 245
Bulgaria: +359 2 9154 409
Cyprus: 1401
Czech Republic: +420 224 919 293, +420 224 915 402
Denmark: +45 82 12 12 12
France: +33 (0) 1 45 42 59 59
Finland: +358 9 471 977
Greece: 30 210 77 93 777
Hungary: +36 80 20 11 99
Ireland (Republic): +352 1 809 2166
Italy: +39 02 6610 1029
Lithuania: +370 523 62052, +370 687 53378
Luxembourg: +352 8002 5500
Netherlands: +31 30 274 88 88
Norway: +47 22 591300
Poland: +48 22 619 66 54, +48 22 619 08 97

Portugal: 800 250 250 (in Portugal only), +351 21 330 3284
Romania: +40 21318 3606
Slovakia: +421 2 54 77 4 166
Slovenia: +386 41 650 500
Spain: +34 91 562 04 20
Sweden: +46 08-331231112
Switzerland: 145
United Kingdom: 0870 600 6266 (in the UK only)
U.S.A. & Canada: +1 800 / 331-3148
All other countries: +1 651 / 632-6793 (Collect)

For leak, fire, spill, or accident emergencies, call:
1 800 / 424-9300 (CHEMTREC - U.S.A. & Canada)
1 703 / 527 3887 (CHEMTREC - All Other Countries - Collect)

Section 2: HAZARDS IDENTIFICATION

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

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 as hazardous waste in accordance with local regulations.

2.3. Other hazards
This product is not identified as a PBT/vPvB substance.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

The product is a mixture, not a substance.

3.2 Mixtures

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	45-55	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	01-2119463881-32-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
Contains 1,2-Benzisothiazolin-3-one (CAS number 2634-33-5) at a level below the concentration limit for classification of the mixture as sensitising.

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.

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.

Ingestion Rinse mouth. Do NOT induce vomiting. Get medical attention immediately 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: 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. May cause an allergic reaction in individuals already sensitised to 1,2-Benzisothiazolin-3-one.

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. Cool containers / tanks with water spray.

Small Fire Dry chemical. Carbon dioxide (CO_2).

Large Fire Water spray. Foam.

Unsuitable extinguishing media
Avoid heavy hose streams.

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. 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. 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	Surface drains within close vicinity of the spill should be covered. Dike to confine spill and absorb with non-combustible absorbent such as clay, sand or soil.
Methods for cleaning up	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see Section 13).

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.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage

Protect from freezing. Store above 5°C. Store in a well-ventilated place. Keep cool. 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.

7.3. Specific end use(s)

Specific Use(s)

Refer to Section 1 and the Annex.

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	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}
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 Ensure adequate ventilation, especially in confined areas. The floor of the storage room must be impermeable to prevent the escape of liquids.

Personal protective equipment

Eye/Face Protection Safety Glasses. Eye wash bottle with pure water.

Hand Protection Use protective gloves made of chemical materials such as nitrile or neoprene. Wash the outside of gloves with soap and water before reuse. Check regularly for leaks.

Skin and Body Protection Wear protective gloves/clothing.

Respiratory Protection Not required under normal use.

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	White
Odour threshold	No information available
pH	8.5 - 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	1.71 - 1.75
Water solubility	Dispersible 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	Non-oxidizing

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 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
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.

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.

LD50 Oral	> 8000 (rat) (Calculated Estimated Acute Toxicity - EAT)
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: 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. May cause an allergic reaction in individuals already sensitised to 1,2-Benzisothiazolin-3-one.
Aspiration hazard	No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

ZEBRAFISH (Danio rerio): 96H LC50 = 3.09 (calculated) mg/L

DAPHNIDS (Daphnia magna): 48H EC50 = 9.98 (calculated) mg/L

ALGAE (Raphidocelis subcapitata): 72H IC50 = 0.337 (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.

Mobility
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

Very 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	Clean container with water. Dispose of rinse water in accordance with local and national guidelines. Dispose of in accordance with local regulations.
EWC Waste Disposal No	02 01 08
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	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (Zinc oxide)
14.3 Hazard class	9
14.4 Packing Group	III
14.5 Marine Pollutant	Yes
Environmental Hazard	Yes
14.6 Special Provisions	No special precautions. Tunnel code: E Transport category: 3
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)
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

ADR/RID

14.1 UN/ID no	UN3082
14.2 Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s (Zinc 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)
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
ethane-1,2-diol 107-21-1	X	X	X	X	X	X	X	X

15.2. Chemical safety assessment

A Chemical Safety Assessment has not yet been completed for this substance

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
EUH208: Contains 1,2-Benzisothiazolin-3-one. May produce an allergic reaction.
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

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

Key literature references and sources for data
Data measured on the product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

Revision date: 2020-03-20

Reason for revision: SDS sections updated.

Training Advice This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

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End of Safety Data Sheet