



SAFETY DATA SHEET

FOLIAR FIX MN - ZN SC

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Compilation date: 09/01/2013

Revision date: July 2017

Revision No: 3-B

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

1.1. Product identifier

Product name: FOLIAR FIX MN - ZN SC

Product code: C028

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

Use of substance / mixture: PC12: Fertilizers.

1.3. Details of the supplier of the safety data sheet

Company name: Safagrow Limited

1 Stapledon Road

Orton Southgate

Peterborough

Cambs.

PE2 6TB

United Kingdom

Tel: +44 (0) 1733 367650

Fax: +44 (0) 1733 367651

Email: support@safagrow.com

1.4. Emergency telephone number

Emergency tel: 01733 367650

(office hours only)

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Aquatic Acute 1: H400; Aquatic Chronic 2: H411; Skin Corr. 1C: H314; -: EUH208

Most important adverse effects: Contains 1,2-benzisothiazolin-3-one. May produce an allergic reaction. Causes severe skin burns and eye damage. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements:

Hazard statements: EUH208: Contains 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

H314: Causes severe skin burns and eye damage.

H400: Very toxic to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

[cont...]

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Hazard pictograms: GHS05: Corrosion
GHS09: Environmental



Signal words: Danger

Precautionary statements: P260: Do not breathe mist.
P264: Wash hands thoroughly after handling.
P273: Avoid release to the environment.
P280: Wear protective gloves.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.
P391: Collect spillage.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

ZINC OXIDE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
-	1314-13-2	-	Aquatic Chronic 1: H410; Aquatic Acute 1: H400	10-30%

MANGANESE NITRATE SOLUTION

233-828-8	10377-66-9	-	Acute Tox. 4: H302; Skin Corr. 1C: H314; STOT RE 2: H373; Aquatic Chronic 3: H412; Eye Dam. 1: H318	1-10%
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ZINC NITRATE HEXAHYDRATE

231-943-8	10196-18-6	-	Ox. Sol. 2: H272; Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335; Aquatic Acute 1: H400; Aquatic Chronic 2: H411	1-10%
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AMINES, TALLOW ALKYL, ETHOXYLATED

-	61791-26-2	-	Eye Dam. 1: H318; Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410	<1%
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Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: Remove contaminated clothing. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. If irritation persists seek medical attention.

Eye contact: Bathe the eye with running water for 15 minutes. Seek medical attention.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Seek medical attention immediately and show container/label or this data sheet

Inhalation: Inhalation of product is unlikely Remove casualty from exposure ensuring one's own safety whilst doing so. If recovery is not rapid seek medical attention

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

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

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. There may be difficulty swallowing.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: This product is not flammable and does not support combustion Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: Corrosive. In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

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Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid. Refer to section 8 of SDS for personal protection details.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS.

Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Shake container well before use Avoid direct contact with the substance. Usual hygiene practices apply. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store above 5°C. Maximum storage temperature 35°C Store in a cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

Section 8: Exposure controls/personal protection

8.1. Control parameters

[cont...]

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Hazardous ingredients:

ZINC OXIDE

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	5 mg/m ³	10 mg/m ³	-	-

DNEL/PNEC Values

DNEL / PNEC No data available.

8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Impermeable gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Pale brown

Odour: Characteristic odour

Evaporation rate: Negligible

Oxidising: No data available.

Solubility in water: Miscible in all proportions

Viscosity: Viscous

Boiling point/range°C: > 95

Melting point/range°C: < 0

Flammability limits %: lower: Not applicable.

upper: Not applicable.

Flash point°C: >93

Part.coeff. n-octanol/water: Not applicable.

Autoflammability°C: No data available.

Vapour pressure: Not applicable.

Relative density: 1.7 - 1.8

pH: 7 - 9

VOC g/l: No data available.

9.2. Other information

Other information: No data available.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

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10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Acids. Oxidising agents.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

ZINC OXIDE

DUST/MIST	RAT	4H LC50	5.7	mg/l
IPR	RAT	LD50	240	mg/kg
ORAL	RAT	LD50	>8437	mg/kg
ORL	MUS	LD50	7950	mg/kg

ZINC NITRATE HEXAHYDRATE

ORAL	MUS	LD50	926	mg/kg
ORAL	RAT	LD50	1190	mg/kg

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DERMAL	RAT	LD50	>1260	mg/kg
ORAL	RAT	LD50	1200	mg/kg

Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

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

Eye contact: Corneal burns may occur. May cause permanent damage.

[cont...]

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Ingestion: Corrosive burns may appear around the lips. There may be difficulty swallowing.

Inhalation: There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing.

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

ZINC OXIDE

ALGAE	72H ErC50	0.17	mg/l
BLUEGILL (<i>Lepomis macrochirus</i>)	96H LC50	>320	mg/l
Daphnia magna	48H EC50	24.6	mg/l

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DAPHNIA	48H EC50	9.8	mg/l
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H LC50	14.5	mg/l

ZINC NITRATE HEXAHYDRATE

BLUEGILL (<i>Lepomis macrochirus</i>)	96H LC50	0.1	mg/l
RAINBOW TROUT (<i>Oncorhynchus mykiss</i>)	96H LC50	0.43	mg/l

AMINES, TALLOW ALKYL, ETHOXYLATED

DAPHNIA	48H EC50	5.2	mg/l
FISH	96H LC50	0.68-7.4	mg/l

12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

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Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: Not applicable.

Disposal of packaging: Triple rinse and puncture the empty container. Do not reuse the container for any purpose. Dispose of waste and residues in accordance with local authority requirements.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UN3082

14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(ZINC OXIDE)

14.3. Transport hazard class(es)

Transport class: 9

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: Yes

Marine pollutant: No

14.6. Special precautions for user

Special precautions: 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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

[cont...]

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Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: EUH208: Contains <name of sensitising substance>. May produce an allergic reaction.

H272: May intensify fire; oxidiser.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H373: May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

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.

H412: Harmful to aquatic life with long lasting effects.

Legal disclaimer: The product should not be used for other purposes than those specified under section 1. Attention of users is drawn to the possible risks incurred when the product is used for purposes other than those for which it was designed. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. The company shall not be held liable for any damage resulting from handling or from contact with the above product.