



**SAFETY DATA SHEET**  
FOLIAR FIX MANGANESE N ALOY

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Compilation date: 22/02/2011

Revision date: July 2015

Revision No: 4-A

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

**1.1. Product identifier**

**Product name:** FOLIAR FIX MANGANESE N ALOY

**Product code:** C011

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

**Use of substance / mixture:** PC12: Fertilizers. Micronutrient foliar fertiliser

**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:** Skin Corr. 1C: H314; STOT RE 2: H373; Aquatic Chronic 3: H412; -: EUH208

**Most important adverse effects:** Contains 1,2-benzisothiazolin-3-one. May produce an allergic reaction. Causes severe skin burns and eye damage. May cause damage to organs (brain) through prolonged or repeated exposure [inhalation (dust/mist)]. Harmful 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.

H373: May cause damage to organs (brain) through prolonged or repeated

[cont...]

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exposure [inhalation (dust/mist)].

H412: Harmful to aquatic life with long lasting effects.

**Hazard pictograms:** GHS05: Corrosion

GHS08: Health hazard



**Signal words:** Danger

**Precautionary statements:** P260: Do not breathe mist.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

**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:**

MANGANESE CARBONATE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
209-942-9	598-62-9	Substance with a Community workplace exposure limit.	-	30-50%

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	10-30%
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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	1-10%
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ALCOHOL ETHER PHOSPHATE

Polymer	-	-	Eye Dam. 1: H318; Skin Irrit. 2: H315	1-10%
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#### Section 4: First aid measures

##### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. 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:** Irritation or pain may occur at the site of contact. Progressive ulceration will occur if treatment is not immediate.

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

**Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat.

**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.

**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:** Avoid direct contact with the substance. 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 in a cool, well ventilated area. Keep container tightly closed.

**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**

**Hazardous ingredients:**

**MANGANESE CARBONATE**

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**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	5	-	-	-

**DNEL/PNEC Values**

**DNEL / PNEC** No data available.

**8.2. Exposure controls**

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**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:** Brown

**Odour:** Characteristic odour

**Evaporation rate:** Negligible

**Oxidising:** No data available.

**Solubility in water:** Miscible in all proportions

**Viscosity:** Viscous

**Boiling point/range°C:** ~ 100

**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:** Not applicable.

**Vapour pressure:** No data available.

**Relative density:** 1.67 - 1.70

**pH:** 4 - 7

**VOC g/l:** Not applicable.

**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.

**10.2. Chemical stability**

**Chemical stability:** Stable under normal conditions.

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**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:**

**AMINES, TALLOW ALKYL, ETHOXYLATED**

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

**ALCOHOL ETHER PHOSPHATE**

ORAL	RAT	LD50	>2000	mg/kg
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**Relevant hazards for product:**

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

**Symptoms / routes of exposure**

**Skin contact:** Irritation or pain may occur at the site of contact. Progressive ulceration will occur if treatment is not immediate.

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

**Ingestion:** Corrosive burns may appear around the lips. Blood may be vomited.

**Inhalation:** There may be shortness of breath with a burning sensation in the throat.

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

**Other information:** Not applicable.

**Section 12: Ecological information**

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**12.1. Toxicity**

**Hazardous ingredients:**

**MANGANESE NITRATE SOLUTION**

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

**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**

**Transport class:** This product does not require a classification for transport.

**Section 15: Regulatory information**

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**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.

**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.

H302: Harmful if swallowed.

H314: Causes severe skin burns and eye damage.

H315: Causes skin irritation.

H318: Causes serious eye damage.

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.

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.