

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Reference number: B Issue date: 8/5/2022 Version: 1.1

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

1.1. Product identifier

Product form Mixture

Name Foliar Fix Manganese N Aloy UFI 3M13-80D0-J003-T3K3

Product code C011

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

1.2.1. Relevant identified uses

Main use category : Professional use Use of the substance/mixture : Fertilisers Function or use category : Fertilisers

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Safagrow Limited Terrachem Limited

1 Stapledon Road Orton Southgate 1a Mayflower Lodge, Cavetown PE2 6TB Peterborough Crogham Boyle - Co Roscommon

United Kingdon Ireland

T +44 (0) 1733 367650 T +353 87 254 7534

support@safagrow.com - www.safagrow.com Info@terrachemi.ie - www.terrachem.ie

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	

Distributor

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 1, Sub-Category 1C H314 Serious eye damage/eye irritation, Category 1 H318 Specific target organ toxicity — Repeated exposure, Category 2 H373 Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412

Full text of H and EUH statements: see section 16

Adverse physicochemical, human health and environmental effects

May cause damage to organs through prolonged or repeated exposure. Causes severe skin burns and eye damage. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)





GHS05

GHS08

Signal word (CLP) : Danger

Contains : AMINES, TALLOW ALKYL, ETHOXYLATED, ALCOHOL ETHER PHOSPHATE,

manganese dinitrate

Hazard statements (CLP) : H314 - Causes severe skin burns and eye damage.

H373 - May cause damage to organs through prolonged or repeated exposure.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) : P260 - Do not breathe mist.

> P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear protective clothing, eye protection, face protection.

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. 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 to hazardous or special waste collection point, in

accordance with local, regional, national and/or international regulation.

EUH-statements EUH208 - Contains 1,2-benzisothiazolin-3-one(2634-33-5). May produce an allergic

reaction.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
manganese carbonate substance with a Community workplace exposure limit	CAS-No.: 598-62-9 EC-No.: 209-942-9 REACH-no: 01-2119442695- 32	30 – 50	Not classified
manganese dinitrate	CAS-No.: 10377-66-9 EC-No.: 233-828-8 REACH-no: 01-2119980631- 35	10 – 30	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Skin Corr. 1C, H314 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Chronic 3, H412

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
AMINES, TALLOW ALKYL, ETHOXYLATED	CAS-No.: 61791-26-2 EC Index-No.: Polymer	1 – 10	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ALCOHOL ETHER PHOSPHATE	CAS-No.: 9046-01-9 EC Index-No.: Polymer	1 – 10	Skin Irrit. 2, H315 Eye Dam. 1, H318
1,2-benzisothiazolin-3-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6 REACH-no: 01-2120761540- 60	< 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400

Specific concentration limits:				
Name	Product identifier	Specific concentration limits		
1,2-benzisothiazolin-3-one	CAS-No.: 2634-33-5 EC-No.: 220-120-9 EC Index-No.: 613-088-00-6 REACH-no: 01-2120761540- 60	(0.05 ≤C ≤ 100) Skin Sens. 1, H317		

Full text of H and EUH statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Inhalation of product is unlikely. Remove person to fresh air and keep comfortable for

breathing.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin

irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing. If eye irritation persists: Get immediate medical advice/attention.

First-aid measures after ingestion : Rinse mouth out with water. If swallowed, seek medical advice immediately and show this

container or label.

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

Symptoms/effects after inhalation : May cause shortness of breath, tightness of the chest, a sore throat and cough.

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

8/5/2022 (Issue date) GB - en 3/11

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

5.3. Advice for firefighters

Firefighting instructions : Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained

breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Do not breathe vapours, fume. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Prevent liquid from entering sewers, watercourses, underground or low areas.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe vapours. Avoid contact with skin

and eyes. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this

product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Protect from

sunlight.

Storage temperature : 5-35 °C

Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8/5/2022 (Issue date) GB - en 4/11

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Safety glasses.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour
Colour : brown.
Odour
Odour threshold : characteristic.
Melting point : 0 °C

Freezing point : Not available
Boiling point : > 95 °C
Flammability : Not applicable
Explosive limits : Not available
Lower explosion limit : Not available
Upper explosion limit : Not available

8/5/2022 (Issue date) GB - en 5/11

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Flash point : > 93 °C

Auto-ignition temperature : Not available

Decomposition temperature : Not available

pH : 4 - 7

Viscosity, kinematic Not available Solubility Miscible with water. Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50 °C : Not available Density : Not available : 1.67 - 1.7 Relative density Relative vapour density at 20 °C : Not available

: Not applicable

9.2. Other information

Particle characteristics

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Acids. Strong acids.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

manganese carbonate (598-62-9)	
	> 2000 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)
	> 5.35 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: EU Method B.2 (Acute Toxicity (Inhalation))

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

AMINES, TALLOW ALKYL, ETHOXYLATED (61791-26-2)		
LD50 oral rat	1200 mg/kg	
LD50 dermal rat	> 1260 mg/kg	
ALCOHOL ETHER PHOSPHATE (904	6-01-9)	
LD50 oral rat	> 2000 mg/kg	
manganese dinitrate (10377-66-9)		
LD50 oral rat	> 300 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method), Guideline: EU Method B.1 bis (Acute Oral Toxicity - Fixed Dose Procedure)	
Skin corrosion/irritation	: Causes severe skin burns. pH: 4 – 7	
AMINES, TALLOW ALKYL, ETHOXYL	ATED (61791-26-2)	
рН	9 – 11	
ALCOHOL ETHER PHOSPHATE (904	6-01-9)	
рН	2.6	
Serious eye damage/irritation	: Causes serious eye damage. pH: 4 – 7	
AMINES, TALLOW ALKYL, ETHOXYL	ATED (61791-26-2)	
рН	9 – 11	
ALCOHOL ETHER PHOSPHATE (904	6-01-9)	
рН	2.6	
Respiratory or skin sensitisation	: Not classified	

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

manganese dinitrate (10377-66-9)		
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.	
Aspiration hazard :	Not classified	

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.

Hazardous to the aquatic environment, short-term : Not classified

(acute)

Hazardous to the aquatic environment, long-term : Harmful to aquatic life with long lasting effects.

(chronic)

Not rapidly degradable	
manganese carbonate (598-62-9)	
	3.17 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)

8/5/2022 (Issue date) GB - en 7/11

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

manganese carbonate (598-62-9)		
LC50 - Fish [2]	16.2 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)	
EC50 - Crustacea [1]	> 3.6 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	> 2.2 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)	
LOEC (chronic)	4.1 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '8 d'	
NOEC (chronic)	1.3 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '8 d'	
NOEC chronic fish	0.55 mg/l Test organisms (species): Salvelinus fontinalis Duration: '65 d'	
AMINES, TALLOW ALKYL, ETHOXYLATED (61791-26-2)		
LC50 - Fish [1]	0.68 – 7.4 mg/l	
EC50 - Crustacea [1]	5.2 mg/l	
manganese dinitrate (10377-66-9)		
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna	
EC50 72h - Algae [1]	61 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)	

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods

Additional information

HP Code

Product/Packaging disposal recommendations

- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : Avoid release to the environment. a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as nonhazardous waste.

: Do not re-use empty containers.

: HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.

HP8 - "Corrosive:" waste which on application can cause skin corrosion.

HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID n	umber			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shippin	g name			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard o	class(es)			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group	14.4. Packing group			
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BLV	Biological limit value	
CAS-No.	Chemical Abstract Service number	
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC50	Median effective concentration	
EC-No.	European Community number	
EN	European Standard	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
vPvB	Very Persistent and Very Bioaccumulative	
WGK	Water Hazard Class	

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
EUH208	Contains 1,2-benzisothiazolin-3-one(2634-33-5). May produce an allergic reaction.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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.
H412	Harmful to aquatic life with long lasting effects.
Ox. Sol. 2	Oxidising Solids, Category 2
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.