

Safety Data Sheet

TourTurf (FS) Micro Pack

Replaces date: 23/03/2020

Revision date: 09/04/2024
Version: 2.0.0

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

1.1. Product identifier

Trade name: TourTurf (FS) Micro Pack
UFI: HXG5-DRV1-P00G-1RAF

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

Recommended uses: Fertiliser.

1.3. Details of the supplier of the safety data sheet

Supplier

Company: E. Marker
Address: Okslundvej 8, Bov
Zip code: 6330
City: Padborg
Country: DENMARK
E-mail: info@emarker.dk
Phone: + 45 74 67 08 08
Homepage: www.emarker.dk

1.4. Emergency Telephone Number

Members of the public: 111 (NHS 111 (Scotland: NHS 24)).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

CLP-classification: Eye Dam. 1;H318
Aquatic Chronic 3;H412

Most serious harmful effects: Causes serious eye damage. Harmful to aquatic life with long lasting effects. The product contains small amounts of nickel sulfate. Persons with a known allergy may exhibit an allergic response to the product.

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2.2. Label elements

Pictograms



Signal word: Danger

Contains

Substance: Manganese sulphate, monohydrate;

Hazard statements

H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P280 Wear protective gloves/eye protection/face protection.
P305+351+338+310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P501 Dispose of contents/container in accordance with local regulation.

Supplemental information

EUH208 Contains nickel sulfate. May produce an allergic reaction.

2.3. Other hazards

Assessment to determine PBT and vPvB has not been made.
Endocrine disrupting properties: None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	CAS No./ EC No./ REACH Reg. No.	Concentration	Notes	CLP-classification
Manganese sulphate, monohydrate	10034-96-5 232-089-9 01-2119456624-35-0000	1 - 5 %		Eye Dam. 1;H318 STOT RE 2;H373 Aquatic Chronic 2;H411
Iron (II) sulfate	7720-78-7 231-753-5 01-2119513203-57	1 - 5 %		Acute Tox. 4;H302 Skin Irrit. 2;H315 Eye Irrit. 2;H319
Citric acid monohydrate	5949-29-1 201-069-1 01-2119457026-42-xxxx	1 - 5 %		Eye Irrit. 2;H319 STOT SE 3;H335
boric acid	10043-35-3 233-139-2 02-2119752829-22-0000	0.1 - 0.3 %		Repr. 1B;H360FD
nickel sulfate	7786-81-4 232-104-9	0.001 - 0.01 %	28	Acute Tox. 4;H302 Skin Irrit. 2;H315 Skin Sens. 1;H317 Acute Tox. 4;H332 Resp. Sens. 1;H334 Muta. 2;H341 Carc. 1A;H350i Repr. 1B;H360D STOT RE 1;H372 Aquatic Acute 1;H400 Aquatic Chronic 1;H410 C ≥ 20%: Skin Irrit. 2; H315 C ≥ 1%: STOT RE 1; H372 C ≥ 0.01%: Skin Sens. 1; H317 0.1% ≤ C < 1%: STOT RE 2; H373 M (acute): 1 M (chronic): 1

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Please see section 16 for the full text of H- / EUH-phrases.

28 = The substance is covered by regulation 1907/2006/EU, annex XVII regarding restrictions.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:	Seek fresh air. Seek medical advice in case of persistent discomfort.
Ingestion:	Wash out mouth thoroughly and drink 1-2 glasses of water in small sips. Seek medical advice in case of persistent discomfort.
Skin contact:	Remove contaminated clothing. Seek medical advice in case of persistent discomfort. Wash the skin with water.
Eye contact:	Open eye wide, remove any contact lenses and flush immediately with water (preferably using eye wash equipment). Seek medical advice immediately. Continue flushing until medical attention is obtained.
General:	When obtaining medical advice, show the safety data sheet or label.

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

Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight. The product contains small amounts of nickel sulfate. Persons with a known allergy may exhibit an allergic response to the product. The product contains at least one substance which is a suspected reproductive hazard.

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

Treat symptoms. No special immediate treatment required.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: The product is not directly flammable. Choose extinguishing agents based on the surrounding fire.

Unsuitable extinguishing media: Do not use water stream, as it may spread the fire.

5.2. Special hazards arising from the substance or mixture

Can generate harmful flue gases containing carbon monoxide in the event of fire.

5.3. Advice for firefighters

Wear Self-Contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. If there is a risk of exposure to vapour and flue gases, a self-contained breathing apparatus must be worn.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Stay upwind/keep distance from source. Stop leak if this can be done without risk. Wear gloves. Wear safety goggles/face protection.

For emergency responders: In addition to the above: Chemical protective suit equivalent to EN 943-2 is recommended.

6.2. Environmental precautions

Prevent spillage from entering drains and/or surface water.

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6.3. Methods and material for containment and cleaning up

Contain and absorb spill with sand or other absorbent material and transfer to suitable waste containers. Wipe up minor spills with a damp cloth.

6.4. Reference to other sections

See section 8 for type of protective equipment.
See section 13 for instructions on disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Running water and eye wash equipment must be available. Wash hands before breaks, before using restroom facilities, and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

Store safely, out of reach of children and away from food, animal feeding stuffs, medicines, etc. Store in a cool, dry place.

7.3. Specific end use(s)

None.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit:	Contains no substances subject to reporting requirements.
Measuring methods:	Compliance with the stated occupational exposure limits may be checked by occupational hygiene measurements.
Legal basis:	EH40/2005 Workplace exposure limits. Last amended January 2020.

8.2. Exposure controls

Appropriate engineering controls:	Wear the personal protective equipment specified below. Use the product under well-ventilated conditions.
Personal protective equipment, eye/face protection:	Wear safety goggles/face protection. Eye protection must conform to EN 166/16321.
Personal protective equipment, hand protection:	Wear gloves. Type of material: Rubber/ Plastic. Breakthrough time has not been determined for the product. Change gloves often. Gloves must conform to EN 374. The suitability and durability of a glove is dependant on usage, e.g. frequency and duration of contact, glove material thickness, functionality and chemical resistance. Always seek advice from the glove supplier.
Personal protective equipment, respiratory protection:	In case of risk of formation of spray mist, wear respiratory protective equipment with P2 filter. Respiratory protection must conform to one of the following standards: EN 136/140/145.
Environmental exposure controls:	Ensure compliance with local regulations for emissions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Parameter	Value/unit
State	Liquid
Colour	Transparent Blue

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Odour	Neutral
Solubility	Soluble in the following: Water.

Parameter	Value/unit	Remarks
Odour threshold	No data	
Melting point	No data	
Freezing point	No data	
Initial boiling point and boiling range	No data	
Flammability (solid, gas)	No data	
Flammability limits	No data	
Explosion limits	No data	
Flash Point	No data	
Auto-ignition temperature	No data	
Decomposition temperature	No data	
pH (solution for use)	3.5	
pH (concentrate)	No data	
Kinematic viscosity	No data	
Viscosity	No data	
Partition coefficient n-octanol/water	No data	
Vapour pressure	No data	
Density	No data	
Relative density	No data	
Vapour density	No data	
Relative density (sat. air)	No data	
Particle characteristics	No data	

9.2. Other information

Other Information: None.

SECTION 10: Stability and reactivity

10.1. Reactivity

No known data.

10.2. Chemical stability

The product is stable when used in accordance with the supplier's directions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Can generate harmful flue gases containing carbon monoxide in the event of fire.

SECTION 11: Toxicological information

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

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Acute toxicity - oral

boric acid, cas-no 10043-35-3

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		2660 mg/kg		OECD 401	

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met. Ingestion may cause discomfort.

Acute toxicity - dermal

Citric acid monohydrate, cas-no 5949-29-1

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rat	LD50		> 2000 mg/kg		OECD 402	

boric acid, cas-no 10043-35-3

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Rabbit	LC50		> 2000 mg/kg		US-EPA	

The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Acute toxicity - inhalation: The product does not have to be classified. Test data are not available.

Skin corrosion/irritation: The product does not have to be classified. Test data are not available. May irritate the skin - may cause reddening.

Serious eye damage/eye irritation: Eye contact may result in deep caustic burns, pain, tearing and cramping of the eyelids. Risk of serious eye injury and loss of sight.

Respiratory sensitisation or skin sensitisation: The product contains small amounts of nickel sulfate. Persons with a known allergy may exhibit an allergic response to the product. The product does not have to be classified. Test data are not available.

Germ cell mutagenicity: The product does not have to be classified. Test data are not available.

Carcinogenic properties

boric acid, cas-no 10043-35-3

Organism	Test Type	Exposure time	Value	Conclusion	Test method	Source
Mouse	NOEL		> 5000 ppm	Negative	OECD 451	

The product contains at least one carcinogenic substance. The product does not have to be classified. Based on existing data, the classification criteria are deemed not to have been met.

Reproductive toxicity: The product contains at least one substance which is a suspected reproductive hazard. The product does not have to be classified. Test data are not available.

Single STOT exposure: The product does not have to be classified. Test data are not available.

Repeated STOT exposure: The product does not have to be classified. Test data are not available.

Aspiration hazard: The product does not have to be classified. Test data are not available.

11.2. Information on other hazards

Endocrine disrupting properties: None known.

Other toxicological effects: None known.

SECTION 12: Ecological information

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12.1. Toxicity

Citric acid monohydrate, cas-no 5949-29-1

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Fish	Leuciscus idus		96hLC50	440 mg/l		OECD 203	
Crustacea	Daphnia magna		24hLC50	1535 mg/l			

boric acid, cas-no 10043-35-3

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
Algae	Pseudokirchneriella subcapitata		72hEC50	229 mg/l			
Fish	Pimephales promelas		96hLC50	456 mg/l			
Crustacea	Daphnia magna		48hEC50	760 mg/l			

Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Citric acid monohydrate, cas-no 5949-29-1

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
				97 %	Readily biodegradable.	OECD 301 B	

Expected to be biodegradable.

12.3. Bioaccumulative potential

boric acid, cas-no 10043-35-3

Organism	Species	Exposure time	Test Type	Value	Conclusion	Test method	Source
			Log Pow	- 1.09	No bioaccumulation expected.		

Test data are not available for all substances.

12.4. Mobility in soil

Test data are not available.

12.5. Results of PBT and vPvB assessment

No assessment has been made.

12.6. Endocrine disrupting properties

None known.

12.7. Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Avoid discharge to drain or surface water.

If this product as supplied becomes a waste, it meets the criteria of a hazardous waste (Dir. 2008/98/EU). Collect spills and waste in closed, leak-proof containers for disposal at the local hazardous waste site.

Empty, cleansed packaging should be disposed of for recycling. Uncleansed packaging is to be disposed of via the local waste-removal scheme.

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Category of waste: EWC code: Depends on line of business and use, for instance 02 01 08* agrochemical waste containing hazardous substances
Absorbent/cloth contaminated with the product: EWC code: 15 02 02 absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances.

SECTION 14: Transport information

14.1. UN number or ID number: Not applicable.	14.4. Packing group: Not applicable.
14.2. UN proper shipping name: Not applicable.	14.5. Environmental hazards: Not applicable.
14.3. Transport hazard class(es): Not applicable.	

14.6. Special precautions for user

None.

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

Special Provisions: Special care should be applied for employees under the age of 18. Young people under the age of 18 may not carry out any work causing harmful exposure to this product.

Covered by:
The Health and Safety (Young Persons) Regulations 1997.

15.2. Chemical Safety Assessment

REACH Reg. No.	Substance name
01-2119456624-35-0000	Manganese sulphate, monohydrate
01-2119513203-57	Iron (II) sulfate

SECTION 16: Other information

Version history and indication of changes

Version	Revision date	Responsible	Changes
2.0.0	09/04/2024	Bureau Veritas HSE / MPE	1, 2, 3, 4, 8, 11, 12, 15, 16

Abbreviations: PBT: Persistent, Bioaccumulative and Toxic
STOT: Specific Target Organ Toxicity
vPvB: Very Persistent and Very Bioaccumulative

Other Information: This safety data sheet has been prepared for and applies to this product only. It is based on our current knowledge and the information that the supplier was able to provide about the product at the time of preparation. The safety data sheet complies with applicable law on preparation of safety data sheets in accordance with Regulation 1907/2006/EC "The Registration, Evaluation and Authorization of Chemicals" as amended by the stationary UK REACH etc. (EU Exit) as subsequently changed.

Training advice: A thorough knowledge of this safety data sheet should be a prerequisite condition.

Classification method: Calculation based on the hazards of the known components.

Hazard statements

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H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H360D	May damage the unborn child.
H360FD	May damage fertility. May damage the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Supplemental hazard information

EUH208 Contains nickel sulfate. May produce an allergic reaction.

SDS is prepared by

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