



SAFETY DATA SHEET PPT114

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

1.1. Product identifier

Product name PPT114
Product number PHP004/5

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

Identified uses Fertiliser for use on managed amenity turf

1.3. Details of the supplier of the safety data sheet

Supplier Headland Amenity Ltd.
1-3 Freeman Court
Jarman Way
Royston
Hertfordshire
SG8 5HW
+44 (0)1763 255550
sds@headlandamenity.com

Contact person Wendy Johnson

1.4. Emergency telephone number

Emergency telephone +44 (0)1763 255550 (09.00 - 17.00 GMT Monday - Friday)

National emergency telephone number 111

SECTION 2: Hazards identification

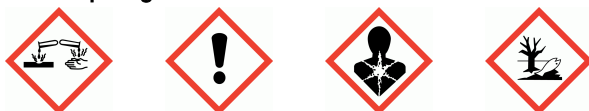
2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified
Health hazards Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT RE 2 - H373
Environmental hazards Aquatic Chronic 1 - H410

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H373 May cause damage to organs through prolonged or repeated exposure.
H410 Very toxic to aquatic life with long lasting effects.

PPT114

Precautionary statements	<p>P260 Do not breathe dust.</p> <p>P280 Wear protective gloves, protective clothing and eye protection.</p> <p>P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P314 Get medical advice/ attention if you feel unwell.</p>
Contains	MANGANESE SULPHATE MONOHYDRATE, FERROUS SULPHATE MONOHYDRATE, ZINC SULPHATE HEXAHYDRATE, COPPER SULPHATE PENTAHYDRATE

2.3. Other hazards**SECTION 3: Composition/information on ingredients****3.2. Mixtures**

MANGANESE SULPHATE MONOHYDRATE	30-60%
CAS number: 10034-96-5	EC number: 232-089-9
	REACH registration number: 01-2119456624-35-XXXX
Classification	
Eye Dam. 1 - H318	
STOT RE 2 - H373	
Aquatic Chronic 2 - H411	
FERROUS SULPHATE MONOHYDRATE	10-30%
CAS number: 17375-41-6	EC number: 231-753-5
	REACH registration number: 01-2119513203-57-XXXX
Classification	
Acute Tox. 4 - H302	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
ZINC SULPHATE HEXAHYDRATE	10-30%
CAS number: 7733-02-0	EC number: 231-793-3
	REACH registration number: 01-2119474684-27-XXXX
M factor (Acute) = 1	M factor (Chronic) = 1
Classification	
Acute Tox. 4 - H302	
Eye Dam. 1 - H318	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	

PPT114

COPPER SULPHATE PENTAHYDRATE			10-30%
CAS number: 7758-98-7	EC number: 231-847-6	REACH registration number: 01-2119520566-40-XXXX	
M factor (Chronic) = 10			
Classification			
Acute Tox. 4 - H302			
Skin Irrit. 2 - H315			
Eye Irrit. 2 - H319			
Aquatic Chronic 1 - H410			
REACTION MASS OF AMMONIUM IRON III CITRATE AND AMMONIUM SULFATE			5-10%
CAS number: —	EC number: 932-833-9	REACH registration number: 01-2119963920-33-XXXX	
Classification			
Skin Irrit. 2 - H315			
Eye Irrit. 2 - H319			

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Remove affected person from source of contamination.
Ingestion	Rinse mouth. Do not induce vomiting. Get medical attention.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water.
Eye contact	Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

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

Inhalation	There may be irritation of the throat with a feeling of tightness in the chest. Absorption through the lungs can occur causing symptoms similar to those of ingestion.
Ingestion	There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be difficulty swallowing. There may be vomiting.
Skin contact	Skin contact may cause redness and irritation.
Eye contact	There may be pain and redness. Profuse watering of the eyes. May cause blurred vision and serious eye damage. May cause permanent damage.

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

Specific treatments	Eye bathing equipment should be available on the premises.
----------------------------	--

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

PPT114

Hazardous combustion products In combustion emits toxic fumes.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions 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 further escape of material.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with sand or other inert absorbent. Transfer to a container for disposal.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section 13. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid any direct contact with the substance. Ensure there is sufficient ventilation of the area. Avoid generation and spreading of dust.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Promptly remove any clothing that becomes contaminated. Provide eyewash station. Wash after use and before eating, smoking and using the toilet. Wash hands thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

MANGANESE SULPHATE MONOHYDRATE

Long-term exposure limit (8-hour TWA): WEL 0.2 mg/m³ as Mn;

Long-term exposure limit (8-hour TWA): WEL 0.2 mg/m³ as Mn

FERROUS SULPHATE MONOHYDRATE

Long-term exposure limit (8-hour TWA): WEL 1 mg/m³

Short-term exposure limit (15-minute): WEL 2 mg/m³

WEL = Workplace Exposure Limit.

MANGANESE SULPHATE MONOHYDRATE (CAS: 10034-96-5)

PPT114

DNEL	Workers - Inhalation; Long term systemic effects: 0.2 mg/m ³ Workers - Dermal; Long term systemic effects: 0.004 mg/kg/day General population - Inhalation; Long term systemic effects: 0.043 mg/m ³ General population - Dermal; Long term systemic effects: 0.002 mg/kg/day
PNEC	Fresh water; 0.03 mg/l marine water; 0.0004 mg/l Sediment (Freshwater); 0.011 mg/kg Sediment (Marinewater); 0.001 mg/kg STP; 56 mg/l Soil; 25.1 mg/kg

FERROUS SULPHATE MONOHYDRATE (CAS: 17375-41-6)

DNEL	Industry - Dermal; Long term systemic effects: 0.5 mg/kg/day Industry - Dermal; Short term systemic effects: 0.57 mg/kg/day General population - Inhalation; Long term systemic effects: 0.5 mg/m ³ Industry - Inhalation; Long term systemic effects: 2.01 mg/kg/day Industry - Inhalation; Short term systemic effects: 2.01 mg/m ³ General population - Inhalation; Short term systemic effects: 0.5 mg/m ³ General population - Dermal; Long term systemic effects: 0.29 mg/kg/day General population - Dermal; Short term systemic effects: 0.29 mg/kg/day General population - Oral; Long term systemic effects: 0.29 mg/kg/day General population - Oral; Short term systemic effects: 0.29 mg/kg/day
PNEC	- Sediment (Freshwater); 49.5 mg/kg - Sediment (Marinewater); 49.5 mg/kg - Soil; 55.5 mg/kg

ZINC SULPHATE HEXAHYDRATE (CAS: 7733-02-0)

DNEL	Workers - Inhalation; systemic effects: 1 mg/m ³ Workers - Dermal; systemic effects: 8.3 mg/kg Consumer - Oral; systemic effects: 0.83 mg/kg Consumer - Dermal; systemic effects: 8.3 mg/kg
PNEC	- Fresh water; 0.0206 mg/l - marine water; 0.0061 mg/l - Sediment (Freshwater); 235.6 mg/kg - Sediment (Marinewater); 113 mg/kg - Soil; 106.8 mg/kg - STP; 0.0052 mg/l

COPPER SULPHATE PENTAHYDRATE (CAS: 7758-98-7)

DNEL	Workers - Inhalation; Long term systemic effects: 1 mg/m ³ Workers - Inhalation; Long term local effects: 1 mg/m ³ Workers - Dermal; Long term systemic effects: 137 mg/kg/day
PNEC	Fresh water; 0.0078 mg/l marine water; 0.0052 mg/l STP; 0.23 mg/l Sediment (Freshwater); 87 mg/kg Sediment (Marinewater); 676 mg/kg Soil; 65 mg/kg

PPT114**REACTION MASS OF AMMONIUM IRON III CITRATE AND AMMONIUM SULFATE**

DNEL Workers - Inhalation; Long term systemic effects: 25 mg/m³

PNEC Fresh water; 1.35 mg/l
marine water; 0.8 mg/l
STP; 5 mg/l

CITRIC ACID MONOHYDRATE (CAS: 5949-29-1)

PNEC Fresh water; 0.44 mg/l
marine water; 0.044 mg/l
STP; 1000 mg/l
Sediment (Freshwater); 3.46 mg/kg
Sediment (Marinewater); 34.6 mg/kg
Soil; 33.1 mg/kg

8.2. Exposure controls

Appropriate engineering controls	Ensure there is sufficient ventilation of the area.
Eye/face protection	Chemical splash goggles. Ensure eye bath is available.
Hand protection	Wear protective gloves.
Other skin and body protection	Wear protective clothing.
Respiratory protection	Self-contained breathing apparatus must be available in case of emergency.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Appearance	Powder.
Colour	Yellow-orange.
Odour	Odourless.
pH	pH (diluted solution): 3.1 (5%)
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	No information available.
Bulk density	No information available.
Solubility(ies)	No information available.
Viscosity	No information available.
Oxidising properties	Does not meet the criteria for classification as oxidising.

PPT114

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable under recommended transport or storage conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Under normal conditions of storage and use, no hazardous reactions will occur.

10.4. Conditions to avoid

Conditions to avoid Avoid heat.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Hazardous decomposition products In combustion emits toxic fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 1,565.6

Inhalation There may be irritation of the throat with a feeling of tightness in the chest. Absorption through the lungs can occur causing symptoms similar to those of ingestion.

Ingestion There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be difficulty swallowing. There may be vomiting.

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

Eye contact There may be pain and redness. Profuse watering of the eyes. May cause blurred vision and serious eye damage. May cause permanent damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecological information on ingredients.

MANGANESE SULPHATE MONOHYDRATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 8.79 mg/l, *Oncorhynchus mykiss* (Rainbow trout)

Acute toxicity - microorganisms NOEC, 3 hours: 560 mg/l, Activated sludge

Chronic aquatic toxicity

Chronic toxicity - fish early life stage NOEC, 65 days: 1.51 mg/l, *Salvelinus fontinalis* (Brook trout)

PPT114**FERROUS SULPHATE MONOHYDRATE****Acute aquatic toxicity**

Acute toxicity - fish LC₅₀, 96 hours: 82.3 mg/l, Oncorhynchus mykiss (Rainbow trout)

ZINC SULPHATE HEXAHYDRATE**Acute aquatic toxicity**

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No potential for bioaccumulation.

12.4. Mobility in soil

Mobility Readily absorbed into soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Disposal methods Transfer to a suitable container and arrange for collection by a specialised disposal company. Dispose of contents/container in accordance with local regulations.

SECTION 14: Transport information**14.1. UN number**

UN No. (ADR/RID) 3077

UN No. (IMDG) 3077

UN No. (ICAO) 3077

UN No. (ADN) 3077

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS COPPER SULPHATE, MANGANESE SULPHATE)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS COPPER SULPHATE, MANGANESE SULPHATE)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS COPPER SULPHATE, MANGANESE SULPHATE)

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CONTAINS COPPER SULPHATE, MANGANESE SULPHATE)

PPT114**14.3. Transport hazard class(es)**

ADR/RID class	9
ADR/RID classification code	M7
ADR/RID label	9
IMDG class	9
ICAO class/division	9
ADN class	9

Transport labels**14.4. Packing group**

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

**14.6. Special precautions for user**

EmS	F-A, S-F
ADR transport category	3
Emergency Action Code	2Z
Hazard Identification Number (ADR/RID)	90
Tunnel restriction code	(-)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

SECTION 16: Other information

PPT114

Revision comments	Product UFI added (not relevant to GB). Supplier company address updated. Emergency contact details updated. NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	06/11/2020
Revision	3
Supersedes date	09/09/2019
SDS number	20563
Hazard statements in full	H302 Harmful if swallowed. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. 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.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.