



SAFETY DATA SHEET LIQUID TURF HARDENER

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

1.1. Product identifier

Product name LIQUID TURF HARDENER

Product number IPH002/10, IPH002/100, IPH002/1000

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 Eye Dam. 1 - H318

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Danger

Hazard statements H302 Harmful if swallowed.
H318 Causes serious eye damage.

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Precautionary statements

P264 Wash contaminated skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves, protective clothing and eye protection.
 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P330 Rinse mouth.

Contains CALCIUM NITRATE

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CALCIUM NITRATE	30-40%
CAS number: 15245-12-2	EC number: 239-289-5
	REACH registration number: 01-2119493947-16-XXXX

Classification
 Acute Tox. 4 - H302
 Eye Dam. 1 - H318

AMMONIUM NITRATE	1-5%
CAS number: 6484-52-2	EC number: 229-347-8
	REACH registration number: 01-2119490981-27-XXXX

Classification
 Ox. Sol. 3 - H272
 Eye Irrit. 2 - H319

PROPIONIC ACID	<1%
CAS number: 79-09-4	EC number: 201-176-3

Classification
 Skin Corr. 1B - H314
 Eye Dam. 1 - H318
 STOT SE 3 - H335

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. Get medical attention.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention.
Skin contact	Wash skin thoroughly with soap and water. Get medical attention if symptoms are severe or persist after washing.
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

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Inhalation	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. There may be difficulty swallowing. Nausea, vomiting.
Skin contact	There may be mild irritation at the site of contact.
Eye contact	There may be irritation and redness.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	None known.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	In combustion emits toxic fumes.
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5.3. Advice for firefighters

Protective actions during firefighting	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
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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.
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6.2. Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground. Contain the spillage using bunding.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely.
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6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. For waste disposal, see Section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Avoid the formation of mists. Avoid contact with skin and eyes.
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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store in tightly-closed, original container. Store in a cool and well-ventilated place.
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7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.
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SECTION 8: Exposure controls/Personal protection

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8.1. Control parameters

Occupational exposure limits

PROPIONIC ACID

Long-term exposure limit (8-hour TWA): WEL 10 ppm 31 mg/m³

Short-term exposure limit (15-minute): WEL 15 ppm 46 mg/m³

WEL = Workplace Exposure Limit.

AMMONIUM NITRATE (CAS: 6484-52-2)

DNEL

Industry - Inhalation; Long term systemic effects: 37.6 mg/m³

Industry - Dermal; Long term systemic effects: 21.3 mg/kg/day

Consumer - Oral; Long term systemic effects: 12.8 mg/kg/day

Consumer - Inhalation; Long term systemic effects: 11.1 mg/m³

Consumer - Dermal; Long term systemic effects: 12.8 mg/kg/day

8.2. Exposure controls

Eye/face protection	Wear eye protection. Ensure eye bath is available.
Hand protection	Wear protective gloves.
Other skin and body protection	Wear protective clothing.
Hygiene measures	Do not eat, drink or smoke when using this product. Promptly remove any clothing that becomes contaminated. Provide eyewash station. Remove contaminated clothing and protective equipment before entering eating areas. Wash hands thoroughly after handling.
Respiratory protection	Respiratory protection not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Purple. Blue.
Odour	No characteristic odour.
pH	pH (concentrated solution): 2.5-3.5
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.
Relative density	1.35 - 1.45
Solubility(ies)	Soluble in water.
Partition coefficient	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Oxidising properties	Does not meet the criteria for classification as oxidising.

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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 at normal ambient temperatures and when used as recommended.

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) 1,428.57

Inhalation 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. There may be difficulty swallowing. Nausea and stomach pain may occur. There may be vomiting.

Skin contact There may be mild irritation at the site of contact.

Eye contact There may be irritation and redness.

SECTION 12: Ecological information

12.1. Toxicity

Ecological information on ingredients.

AMMONIUM NITRATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 48 hours: 447 mg/l, Fish

Acute toxicity - aquatic plants LC₅₀, 96 hours: 1700 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability The product is biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential No potential for bioaccumulation.

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Partition coefficient No information available.

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

General information Dispose of waste product or used containers in accordance with local regulations Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

Disposal methods Avoid the spillage or runoff entering drains, sewers or watercourses. Dispose of contents/container in accordance with local regulations.

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

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.

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SECTION 16: Other information

Revision comments	Supplier company address updated. Emergency contact details updated. NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	05/03/2021
Revision	5
Supersedes date	18/05/2016
Hazard statements in full	H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

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.