



SAFETY DATA SHEET VERTEX HI-N

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

1.1. Product identifier

Product name VERTEX HI-N
Product number LQF012, LQF013, LQF014

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 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319
Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms



Signal word Warning

Hazard statements H315 Causes skin irritation.
H319 Causes serious eye irritation.

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Precautionary statements

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves, protective clothing and eye protection.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/ attention.

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

AMMONIUM NITRATE 10-30%		
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

MANGANESE DINITRATE 1-10%		
CAS number: 10377-66-9	EC number: 233-828-8	REACH registration number: 01-2119487993-17-XXXX

Classification

Ox. Sol. 2 - H272
Acute Tox. 4 - H302
Skin Corr. 1B - H314
Eye Dam. 1 - H318
STOT RE 2 - H373
Aquatic Chronic 3 - H412

COPPER DINITRATE <1%		
CAS number: 3251-23-8	EC number: 221-838-5	REACH registration number: 01-2119429044-48-XXXX

M factor (Acute) = 1

Classification

Ox. Sol. 2 - H272
Skin Corr. 1B - H314
Eye Dam. 1 - H318
Aquatic Acute 1 - H400
Aquatic Chronic 2 - H411

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

Move affected person to fresh air at once. Rinse nose and mouth with water. Get medical attention.

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Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention.
Skin contact	Remove affected person from source of contamination. Take off immediately all contaminated clothing and wash it before reuse. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

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.
Ingestion	There may be irritation of the throat.
Skin contact	Skin contact may cause redness and irritation.
Eye contact	Irritation and redness, followed by blurred vision. Profuse watering of the eyes.

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

Notes for the doctor	No specific recommendations. If in doubt, get medical attention promptly.
Specific treatments	Eye bathing equipment should be available on the premises.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. 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	Toxic gases or vapours. Oxides of nitrogen.
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5.3. Advice for firefighters

Protective actions during firefighting	No specific firefighting precautions known. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.
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	Wear protective clothing as described in Section 8 of this safety data sheet.
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6.2. Environmental precautions

Environmental precautions	Avoid the spillage or runoff entering drains, sewers or watercourses. Contain the spillage using bunding.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Stop leak if safe to do so. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses.
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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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Provide adequate ventilation. Avoid spilling. Avoid contact with skin and eyes. Wash hands thoroughly after handling.
Advice on general occupational hygiene	Do not eat, drink or smoke when using this product. Remove contaminated clothing and protective equipment before entering eating areas.

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. Protect from frost. Store at temperatures above 5°C. Keep away from heat. Protect from sunlight. Keep away from food, drink and animal feeding stuffs.
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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

8.1. Control parameters

8.2. Exposure controls

Protective equipment



Appropriate engineering controls	Provide adequate ventilation.
Eye/face protection	The following protection should be worn: Chemical splash goggles or face shield. Provide eyewash station.
Hand protection	Wear protective gloves made of the following material: Nitrile rubber. Neoprene.
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Hygiene measures	Do not smoke in work area. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. Do not eat, drink or smoke when using this product.
Respiratory protection	No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.
Environmental exposure controls	Refer to specific Member State legislation for requirements under Community environmental legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Blue.
Odour	Almost odourless.

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Odour threshold	No information available.
pH	pH (concentrated solution): 3.0 - 5.0
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	Mixture not classed as flammable
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	1.34 - 1.36
Bulk density	No information available.
Solubility(ies)	Soluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	No information required.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product. Stable under recommended transport or storage conditions.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures. Stable under normal conditions.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
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10.4. Conditions to avoid

Conditions to avoid	Avoid heat.
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10.5. Incompatible materials

Materials to avoid	Strong reducing agents. Strong alkalis.
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10.6. Hazardous decomposition products

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Hazardous decomposition products In combustion emits toxic fumes. Nitrous gases (NO_x).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects No information available.

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.0

Species Rat

ATE oral (mg/kg) 25,000.0

Inhalation There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion There may be irritation of the throat.

Skin contact Skin contact may cause redness and irritation.

Eye contact Irritation and redness, followed by blurred vision. Profuse watering of the eyes.

SECTION 12: Ecological information

Ecotoxicity Not regarded as dangerous for the environment.

12.1. Toxicity

Ecological information on ingredients.

AMMONIUM NITRATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 48 hours: 65-85 mg/l, Cyprinus carpio (Common carp)

MANGANESE DINITRATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 47.2 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >100 mg/l, Daphnia magna

Acute toxicity - aquatic plants ErC₅₀, 72 hours: 64.6 mg/l, Desmodesmus subspicatus

COPPER DINITRATE

Acute aquatic toxicity

LE(C)₅₀ 0.1 < L(E)C₅₀ ≤ 1

M factor (Acute) 1

Acute toxicity - fish LC₅₀, 96 hours: 0.590 mg/l, Oncorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates LC₅₀, 48 hours: 0.195 mg/l, Daphnia magna

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Acute toxicity - aquatic plants

ErC50, 72 hours: 0.440 mg/l, Algae

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulative potential No information available.

Partition coefficient No information available.

12.4. Mobility in soil

Mobility No information available.

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

Other adverse effects Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

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 Annex II of MARPOL 73/78 and the IBC Code Not applicable.

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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

Revision comments	Supplier company address updated. Emergency contact details updated. NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	14/05/2021
Revision	4
Supersedes date	19/05/2016
Hazard statements in full	H272 May intensify fire; oxidiser. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. 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. H411 Toxic to aquatic life with long lasting effects. H412 Harmful 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.