

SAFETY DATA SHEET

In accordance with 1907/2006 annex II and 1272/2008
(All references to EU regulations and directives are abbreviated into only the numeric term)
Revision date 2025-05-13
Replaces SDS issued 2022-12-28
Version number 2.0



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

1.1. Product identifier

Trade name High-N

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

Identified uses Fertilizers

1.3. Details of the supplier of the safety data sheet

Company CropHealth AB
HÖGLANDSTORGET 11
167 71 Bromma
Sweden
Telephone 070-777 09 61
E-mail peter@crophealthab.com

1.4. Emergency telephone number

Phone number for emergencies: 999 or 112. The numbers are available 24/7.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Ox. Sol. 3, H272
Eye Irrit. 2, H319
(See section 16)

2.2. Label elements

Hazard pictogram



Signal word	Warning
Hazard statements	
H272	May intensify fire; oxidiser
H319	Causes serious eye irritation
Precautionary statements	
P101	If medical advice is needed, have product container or label at hand
P102	Keep out of reach of children
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P220	Keep away from clothing and other combustible materials
P280	Wear protective gloves and eye protection
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313	If eye irritation persists: Get medical advice/attention
P501	Dispose of contents and container to authorised waste disposal facility

2.3. Other hazards

This product does not contain any substances that are assessed to be a PBT or a vPvB

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
AMMONIUM NITRATE		
CAS No: 6484-52-2 EC No: 229-347-8	Ox. Sol. 3, Eye Irrit. 2; H272, H319	20 - 30 %
POTASSIUM NITRATE		
CAS No: 7757-79-1 EC No: 231-818-8 REACH: 01-2119488224-35	Ox. Sol. 3; H272	5 - 10 %
IRON (II) SULFATE (1:1) HEPTAHYDRATE		
CAS No: 7782-63-0 EC No: 231-753-5 Index No: 026-003-01-4	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H302, H315, H319 <i>Specific concentration limits and acute toxicity estimates (ATE): Skin Irrit. 2, H315: C ≥ 25 %</i>	≥1 - <5 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Generally

In case of concern, or if symptoms occur, call a doctor/physician.

Never attempt to administer liquid, or anything else, to an unconscious person via the mouth.

Upon breathing in

Fresh air and rest. If symptoms persist seek medical advice.

Upon eye contact

Remove contact lenses immediately if possible.

Rinse the eye for several minutes with lukewarm water. If irritation persists call a doctor/ophthalmologist.

Upon skin contact

Remove contaminated clothing.

Wash the skin with soap and water.

If symptoms occur, contact a physician.

Upon ingestion

Rinse mouth out thoroughly first with water, then SPIT OUT the rinse water. Drink at least half a litre of water and seek medical advice. DO NOT INDUCE VOMITING.

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

Upon eye contact

Irritation.

Upon ingestion

Ingestion may cause discomfort or reduced general condition.

May cause irritation of mucous membranes, nausea and vomiting.

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

Symptomatic treatment.

Upon contact with a doctor, make sure to have the label or this safety data sheet with you.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Extinguish with water mist, powder, carbon dioxide or alcoholresistant foam.

5.2. Special hazards arising from the substance or mixture

Gases detrimental to health (carbon monoxide and carbon dioxide) can be spread in case of fire.

May intensify fire; oxidiser.

5.3. Advice for firefighters

Protective measures to be taken with regard to other materials at the scene of the fire.

In case of fire use proper breathing apparatus.

Wear full protective clothing.

The containers should be moved away from the place of fire, if this can take place without risks.

Cool closed containers that were exposed to fire with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep unauthorized and unprotected people at a safe distance.

Evacuate the accident area and call an ambulance, if relevant.

Do not inhale the product and avoid exposure to skin, eyes and clothing.

Avoid dust formation.

Switch off equipment which has an exposed flame, glows, or has a heat source of some other kind.

Switch off power at the main switch. Do not use the power switch in the room where the spillage has occurred.

Note, risk for formation of sparks due to static electricity. Do not remove clothing in a room where spillage has occurred.

Ensure good ventilation.

Use recommended safety equipment, see section 8.

Use breathing apparatus when oxygen levels are low or unknown.

6.2. Environmental precautions

Avoid release to drains, soil or watercourses.

Prevent from entering sewers, basements and pits, or any place where gas accumulation could be dangerous.

Notify rescue services for larger spillage.

6.3. Methods and material for containment and cleaning up

Do NOT use tools emitting sparks when cleaning.

Carefully collect the product without dust formation and reuse if possible, otherwise dispose of at a waste collection point.

Ensure good ventilation after sanitation.

6.4. Reference to other sections

See section 8 and 13 for personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Take the necessary preventive and protective measures for safe handling.
- Do not inhale the product and avoid exposure to skin, eyes and clothing.
- Avoid handling in a manner which will raise dust.
- Work in order to avoid spillage. If spillage does occur, address it immediately in accordance with the directions specified in Section 6 of this safety data sheet.
- Open fire, hot items, sparks or other ignition sources must not be present in the environment used for handling this product.
- Store this product separately from food items and keep it out of the reach of children and pets.
- Do not eat, drink or smoke in premises where this product is handled.
- Wash your hands after using the product.
- Remove contaminated clothing.
- Wash contaminated clothing before reuse.
- Keep away from incompatible products.
- Use recommended safety equipment, see section 8.
- Implement appropriate engineering controls if necessary, see Section 8.

7.2. Conditions for safe storage, including any incompatibilities

- The product should be stored in a manner which prevents hazards to health and the environment. Avoid exposure to humans and animals and do not discharge the product in a sensitive environment.
- Take the necessary preventive and protective measures for safe storage.
- Keep out of reach for children.
- To be stored away from food and animal fodder and away from devices or surfaces that are in contact with those items.
- Store tightly, in original packaging.
- Always use sealed and visibly labeled packages.
- Store in dry and cool area.
- Keep away from heat and sunlight.
- Store in a well-ventilated space.
- Do not store close to incompatible materials (see section 10.5).

7.3. Specific end use(s)

- See identified uses in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National limit values

- All ingredients (cf. Section 3) lack occupational exposure limit values.

DNEL

AMMONIUM NITRATE

	Type of exposure	Route of exposure	Value
Consumer	Chronic Systemic	Inhalation	8.9 mg/m ³
Worker	Chronic Systemic	Dermal	5.12 mg/kg bw
Worker	Chronic Systemic	Inhalation	36 mg/m ³
Consumer	Chronic Systemic	Oral	2.56 mg/kg bw
Consumer	Chronic Systemic	Dermal	2.56 mg/kg bw

PNEC**AMMONIUM NITRATE**

Environmental protection target	PNEC value
Fresh water	0.45 mg/L
Marine water	0.045 mg/L
Microorganisms in sewage treatment	18 mg/L

POTASSIUM NITRATE

Environmental protection target	PNEC value
Microorganisms in sewage treatment	18 mg/L

8.2. Exposure controls

The risks posed by the product or its constituents must be considered in the task specific risk assessment, in accordance with current working environment legislation. The risk assessment should be reviewed regularly and updated if necessary.

8.2.1. Appropriate engineering controls

The ventilation in the workplace must ensure an air quality that meets the requirements of the current working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at the source. Eye-rinsing facilities shall be available at the workplace.

Eye/face protection

Use protective glasses with tight seals according to standard EN166.

Skin protection

Use suitable protective clothing.

Use protective gloves fulfilling the standard EN374 if there is a risk of direct contact.

During continuous contact use gloves with a minimum breakthrough time of at least 240 minutes, preferably over 480 minutes.

The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.

Based on the chemical properties of the product, the following glove materials are recommended (EN 374):.

– Nitrile rubber.

Respiratory protection

Use appropriate respiratory protective equipment in case of insufficient ventilation.

The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.

Based on the physical and chemical properties of the product, the following filter type(s) and/or filter combination(s) are recommended:.

– P2/P3.

8.2.3. Environmental exposure controls

For limiting environmental exposure, see section 12.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a) Physical state	solid
	Form: solid
(b) Colour	dark brown
(c) Odour	sweet
(d) Melting point/freezing point	Not indicated
(e) Boiling point or initial boiling point and boiling range	Not indicated
(f) Flammability	Not indicated
(g) Lower and upper explosion limit	Not indicated
(h) Flash point	Not indicated
(i) Auto-ignition temperature	Not indicated
(j) Decomposition temperature	Not indicated
(k) pH	When supplied, pH is: 4.2
(l) Kinematic viscosity	Not indicated
(m) Solubility	Solubility in water: Soluble
(n) Partition coefficient n-octanol/water (log value)	Not indicated
(o) Vapour pressure	Not indicated
(p) Density and/or relative density	1.28
(q) Relative vapour density	Not indicated
(r) Particle characteristics	Not indicated

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not indicated

9.2.2. Other safety characteristics

Not indicated

SECTION 10: Stability and reactivity

10.1. Reactivity

May intensify fire. Oxidising.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known during normal use.

10.4. Conditions to avoid

Avoid heat, sparks and open flames.

Protect from direct sunlight.

10.5. Incompatible materials

Avoid contact with:

Acids.

Bases.

Reducing agents.

Oxidizing substances.

Combustible or flammable materials.

10.6. Hazardous decomposition products

None under normal conditions.

SECTION 11: Toxicological information

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

Information on possible health hazards are based on experience and / or toxicological properties of several components in the product.

The product is oxidising and rapidly damages living material, skin and eyes for instance.

Acute toxicity

The product is not classified as acutely toxic.

POTASSIUM NITRATE

LD50 rat 24h: 3750 mg/kg Orally

IRON (II) SULFATE (1:1) HEPTAHYDRATE

LD50 rabbit 24h: > 2000 mg/kg Dermally

LC50 rat 4h: > 5 mg/L (dust/mist) Inhalation

LD50 rat 24h: 500 mg/kg Orally

Skin corrosion/irritation

The product is not classified for skin corrosion/irritation.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

The product is not classified as sensitising.

Germ cell mutagenicity

The product is not classified as mutagen.

Carcinogenicity

The product is not classified as carcinogenic.

Reproductive toxicity

The product is not classified as a reproductive toxicant.

STOT-single exposure

The product is not classified for specific organ toxicity after single exposure.

STOT-repeated exposure

The product is not classified for specific organ toxicity after repeated exposure.

Aspiration hazard

The product is not classified as being toxic for aspiration.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No information is available.

11.2.2. Other information

Not indicated.

SECTION 12: Ecological information

12.1. Toxicity

The product is not to be labelled as a environmental hazard. However, it is not inconceivable that large emissions, or repeated small emissions, can have a harmful effect on the environment.

Prevent release on land, in water and drains.

POTASSIUM NITRATE

EC50 Freshwater water flea (*Daphnia magna*) 48 h: 490 mg/L

LC50 Guppy (*Poecilia reticulata*) 96h: 1378 mg/L

12.2. Persistence and degradability

No information is available.

12.3. Bioaccumulative potential

No information is available.

12.4. Mobility in soil

No information is available.

12.5. Results of PBT and vPvB assessment

This product does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Endocrine disrupting properties

No information is available.

12.7. Other adverse effects

No known effects or hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste handling of the product

Avoid discharge into sewers.

Discarded products must be disposed of as hazardous waste in accordance with regulations.

Not completely emptied packaging can contain remnants of dangerous substances and should therefore be handled as hazardous waste according to the above. Completely emptied packaging can be recycled.

See directive 2008/98/EC on waste. Observe national or regional provisions on waste management.

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number or ID number

1477

14.2. UN proper shipping name

NITRATES, INORGANIC, N.O.S (AMMONIUM NITRATE, POTASSIUM NITRATE)

14.3. Transport hazard class(es)

Class

5.1: Oxidizing substances

Classification code (ADR/RID)

O2: Oxidizing substances without subsidiary risk or articles containing such substances: Solid

Subsidiary risk (IMDG)

No subsidiary risk according to IMDG

Labels



14.4. Packing group

Packing group III

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Tunnel restrictions

Tunnel category: E

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

Stowage category not indicated (IMDG)

SECTION 15: Regulatory information

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

Not indicated.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: Other information

16a. Indication of where changes have been made to the previous version of the safety data sheet

Revisions of this document

Earlier versions

2022-12-28 Changes in section(s) 2, 3, 5, 6, 7, 8, 10, 11, 12, 16.

16b. Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

Ox. Sol. 3 Oxidising Solids, Hazard Category 3 - Ox. Sol. 3, H272 - May intensify fire; oxidiser
Eye Irrit. 2 Serious eye damage/eye irritation, Hazard Category 2 - Eye Irrit. 2, H319 - Causes serious eye irritation
Acute Tox. 4 Acute toxicity (oral), Hazard Category 4 - Acute Tox. 4, H302 - Harmful if swallowed
Skin Irrit. 2 Skin corrosion/irritation, Hazard Category 2 - Skin Irrit. 2, H315 - Causes skin irritation

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: E; Passage through category E tunnels is strictly forbidden

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2025-05-13.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
2008/98/EC DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

16e. List of relevant hazard statements and/or precautionary statements

Full texts for hazard statements mentioned in section 3

H272 May intensify fire; oxidiser

H319 Causes serious eye irritation

H302 Harmful if swallowed

H315 Causes skin irritation

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

Warning for misuse

This product can cause harm if used improperly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

Other relevant information

Not indicated

Editorial information



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, www.kemrisk.se