

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 1 of 10
Print date: 05/01/2024

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: Solarmax N
UFI: RTV9-PPE3-V44T-8C8K

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

N Fertilizer

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **INDIGROW AB**
Address: MOTALGATAN 18, VADSTENA
City: 592 32 - VADSTENA
Province: VADSTENA, SWEDEN
Telephone: +441189710995
E-mail: GROWTH@INDIGROW.COM
Web: WWW.INDIGROW.COM

1.4 Emergency telephone number: +441189710995 (Available 24 hours)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.

In accordance with Regulation (EC) No 1272/2008:
Eye Irrit. 2 : Causes serious eye irritation.

2.2 Label elements.

Labelling in accordance with Regulation (EC) No 1272/2008:

Pictograms:



Signal Word:

Warning

Hazard statements:

H319 Causes serious eye irritation.

Precautionary statements:

P264 Wash ... thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.

2.3 Other hazards.

The mixture does not contain substances classified as PBT.
The mixture does not contain substances classified as vPvB.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 2 of 10
Print date: 05/01/2024

The mixture does not contain any endocrine disrupting properties substances.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Not applicable.

3.2 Mixtures.

Substances posing a danger to health or the environment in accordance with the Regulation (EC) No. 1272/2008, assigned a Community exposure limit in the workplace, and classified as PBT/vPvB or included in the Candidate List:

Identifiers	Name	Concentrate	(*)Classification - Regulation (EC) No 1272/2008	
			Classification	Specifics concentration limits and Acute toxicity estimate
CAS No: 6484-52-2 EC No: 229-347-8	ammonium nitrate	10 - 50 %	Eye Irrit. 2, H319 - Ox. Sol. 3, H272	-

(*) The complete text of the H phrases is given in section 16 of this Safety Data Sheet.

[2] Substance with a national workplace exposure limit (see section 8.1).

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Don't let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

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

Irritant Product, repeated or prolonged contact with skin or mucous membranes can cause redness, blisters or dermatitis, inhalation of spray mist or particles in suspension may cause irritation of the respiratory tract, some symptoms may not be immediate.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Cover the affected area with a dry sterile bandage. Protect the affected area from pressure or friction.

SECTION 5: FIREFIGHTING MEASURES.

The product is NOT classified as flammable, in case of fire the following measures should be taken:

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 3 of 10
Print date: 05/01/2024

5.1 Extinguishing media.

Suitable extinguishing media:

Extinguisher powder or CO₂. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:

Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance or mixture.

Special risks.

Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.

Product not classified as hazardous for the environment, avoid spillage as much as possible.

6.3 Methods and material for containment and cleaning up.

Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.

Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations (see section 13).

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25 °C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).

Not available.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 4 of 10
Print date: 05/01/2024

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

Concentration levels DNEL/DMEL:

Name	DNEL/DMEL	Type	Value
ammonium nitrate CAS No: 6484-52-2 EC No: 229-347-8	DNEL (Workers)	Inhalation, Chronic, Systemic effects	37,6 (mg/m ³)
	DNEL (Consumers)	Inhalation, Chronic, Systemic effects	11,1 (mg/m ³)
	DNEL (Workers)	Dermal, Chronic, Systemic effects	21,3 (mg/kg bw/day)
	DNEL (Consumers)	Dermal, Chronic, Systemic effects	12,8 (mg/kg bw/day)
	DNEL (Consumers)	Oral, Chronic, Systemic effects	12,8 (mg/kg bw/day)

DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.

DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.

Concentration levels PNEC:

Name	Details	Value
ammonium nitrate CAS No: 6484-52-2 EC No: 229-347-8	aqua (freshwater)	0,45 (mg/L)
	aqua (marine water)	0,045 (mg/L)
	aqua (intermittent releases)	4,5 (mg/L)
	STP	18 (mg/L)

PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %
Uses:	N Fertilizer
Breathing protection:	
If the recommended technical measures are observed, no individual protection equipment is necessary.	
Hand protection:	
If the product is handled correctly, no individual protection equipment is necessary.	
Eye protection:	
If the product is handled correctly, no individual protection equipment is necessary.	
Skin protection:	
PPE:	Work footwear.
Characteristics:	«CE» marking, category II.
CEN standards:	EN ISO 13287, EN 20347
Maintenance:	This product adapts to the first user's foot shape. That is why, as well as for hygienic reasons, it should not be used by other people.
Observations:	Work footwear for professional use includes protection elements aimed at protecting users against any injury resulting from an accident

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 5 of 10
Print date: 05/01/2024

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Physical state: Liquid

Colour: Transparent Yellow

Odour: Characteristic

Odour threshold: Not applicable (Not relevant for this type of product)

Melting point: Not applicable (Not relevant for this type of product)

Freezing point: Not applicable (Not relevant for this type of product)

Boiling point or initial boiling point and boiling range: Not applicable (Not relevant for this type of product)

Flammability: Not applicable (Not relevant for this type of product)

Lower explosion limit: Not applicable (Not relevant for this type of product)

Upper explosion limit: Not applicable (Not relevant for this type of product)

Flash point: Not applicable (Not relevant for this type of product)

Auto-ignition temperature: Not applicable (Not relevant for this type of product)

Decomposition temperature: Not applicable (Not relevant for this type of product)

pH: 5,5 (100%)

Kinematic viscosity: Not applicable (Not relevant for this type of product)

Solubility: Not applicable (Not relevant for this type of product)

Hydrosolubility: Not applicable (Not relevant for this type of product)

Liposolubility: Not applicable (Not relevant for this type of product)

Partition coefficient n-octanol/water (log value): Not applicable (Not relevant for this type of product)

Vapour pressure: Not applicable (Not relevant for this type of product)

Absolute density: Not applicable (Not relevant for this type of product)

Relative density: 1,33

Relative vapour density: Not applicable (Not relevant for this type of product)

Particle characteristics: Not applicable (Not relevant for this type of product)

9.2 Other information

Not applicable/Not available due to the nature/properties of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

The product does not present hazards by their reactivity.

10.2 Chemical stability.

Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.

The product does not present possibility of hazardous reactions.

10.4 Conditions to avoid.

Avoid any improper handling.

10.5 Incompatible materials.

Keep away from oxidising agents and from highly alkaline or acidic materials in order to prevent exothermic reactions.

10.6 Hazardous decomposition products.

No decomposition if used for the intended uses.

SECTION 11: TOXICOLOGICAL INFORMATION.

IRRITANT MIXTURE. Splashes in the eyes can cause irritation.

11.1 Information on hazard classes as defined in Regulation (EC) N° 1272/2008.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Toxicological information about the substances present in the composition.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 6 of 10
Print date: 05/01/2024

Name		Acute toxicity			
		Type	Test	Kind	Value
ammonium nitrate	Oral	LD50	Rat	2220 mg/kg [1]	
		LD50	Rat	2950 mg/kg bw [2]	
		LD50	Mouse	2085 mg/kg bw [3]	
		[1] Gigiena i Sanitariya. For English translation, see HYSAAV. Vol. 52(8), Pg. 25, 1987.			
		[2] Study report, 1981. OECD Guideline 401 (Acute Oral Toxicity)			
CAS No: 6484-52-2 EC No: 229-347-8	Dermal	[3] Evaluation of the mutagenic activity of ammonium nitrate and dimethylamine salt of 2,4-dichlorophenoxyacetic acid, Nechkina MA, 1992.			
		LD50	Rat	>5000 mg/kg [1]	
	Inhalation	[1] Study report, 2000. According to OECD 402 and GLP procedures.			
LC50		Rat	>88.8 mg/L (4 h) [1]		
		[1] experimental result			

a) acute toxicity;

Not conclusive data for classification.

b) skin corrosion/irritation;

Not conclusive data for classification.

c) serious eye damage/irritation;

Product classified:

Eye irritation, Category 2: Causes serious eye irritation.

d) respiratory or skin sensitisation;

Not conclusive data for classification.

e) germ cell mutagenicity;

Not conclusive data for classification.

f) carcinogenicity;

Not conclusive data for classification.

g) reproductive toxicity;

Not conclusive data for classification.

h) STOT-single exposure;

Not conclusive data for classification.

i) STOT-repeated exposure;

Not conclusive data for classification.

j) aspiration hazard;

Not conclusive data for classification.

11.2 Information on other hazards.

Endocrine disrupting properties

This product does not contain components with endocrine-disrupting properties with effects on human health.

Other information

There is no information available on other adverse health effects.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 7 of 10
Print date: 05/01/2024

Name	Ecotoxicity			
	Type	Test	Kind	Value
ammonium nitrate CAS No: 6484-52-2 EC No: 229-347-8	Fish	LC50	Cyprinus carpio (Fish, fresh water)	95 - 102 mg/l (48 h) [1]
		[1] BASF AG Ludwigshafen		
	Aquatic invertebrates	EC50	Daphnia magna	555 mg/l [1]
		EC50	Daphnia sp.	111 - 840 mg/l (48 h) [2]
		[1] DSM Meststoffen BV Sittard Metallgesellschaft AG Frankfurt a.M [2] Dyno Nitrogen AB Ljungaverk		
	Aquatic plants	EC50	Scenedesmus quadricauda	83 mg/l [1]
		EC50	several benthic diatoms	>1700 mg/l (10 d) [2]
		[1] Forschungsbericht, Umweltbundesamt, Berlin, cited in KBWS, Trenel, J. and Kuehn, R. 1982 [2] Tolerance of estuarine benthic diatoms to high concentrations of ammonia, nitrite ion, nitrate ion and orthophosphate, Admiraal W. 1977.		

12.2 Persistence and degradability.

No information is available regarding the biodegradability of the substances present.

No information is available on the degradability of the substances present.

No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

Information about the bioaccumulation of the substances present.

Name	Bioaccumulation			
	Log Pow	BCF	NOECs	Level
ammonium nitrate CAS No: 6484-52-2 EC No: 229-347-8	-3,1	-	-	Very low

12.4 Mobility in soil.

No information is available about the mobility in soil.

The product must not be allowed to go into sewers or waterways.

Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

12.6 Endocrine disrupting properties.

This product doesn't contain components with environmental endocrine disrupting properties.

12.7 Other adverse effects.

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

No information is available about other adverse effects for the environment.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 8 of 10
Print date: 05/01/2024

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product's spillage, proceed in accordance with point 6.

14.1 UN number or ID number.

Transportation is not dangerous.

14.2 UN proper shipping name.

Description:

ADR/RID: Not classified as hazardous for transport.

IMDG: Not classified as hazardous for transport.

ICAO/IATA: Not classified as hazardous for transport.

14.3 Transport hazard class(es).

Transportation is not dangerous.

14.4 Packing group.

Transportation is not dangerous.

14.5 Environmental hazards.

Transportation is not dangerous.

Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): Not applicable.

14.6 Special precautions for user.

Transportation is not dangerous.

14.7 Maritime transport in bulk according to IMO instruments.

Not classified as hazardous for transport.

SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles:

Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
58. Ammonium nitrate (AN) CAS No 6484-52-2 EC No 229-347-8	1. Shall not be placed on the market for the first time after 27 June 2010 as a substance, or in mixtures that contain more than 28 % by weight of nitrogen in relation to ammonium nitrate, for use as a solid fertiliser, straight or compound, unless the fertiliser complies with the technical provisions for ammonium nitrate fertilisers of high nitrogen content set out in Annex III to Regulation (EC) No 2003/2003 of the European Parliament and of the Council (10). 2. Shall not be placed on the market after 27 June 2010 as a substance, or in

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 9 of 10
Print date: 05/01/2024

	mixtures that contain 16 % or more by weight of nitrogen in relation to ammonium nitrate except for supply to: (a) downstream users and distributors, including natural or legal persons licensed or authorised in accordance with Council Directive 93/15/EEC (11); (b) farmers for use in agricultural activities, either full time or part time and not necessarily related to the size of the land area. For the purposes of this subparagraph: (i) 'farmer' shall mean a natural or legal person, or a group of natural or legal persons, whatever legal status is granted to the group and its members by national law, whose holding is situated within Community territory, as referred to in Article 299 of the Treaty, and who exercises an agricultural activity; (ii) 'agricultural activity' shall mean the production, rearing or growing of agricultural products including harvesting, milking, breeding animals and keeping animals for farming purposes, or maintaining the land in good agricultural and environmental condition as established under Article 5 of Council Regulation (EC) No 1782/2003 (12); (c) natural or legal persons engaged in professional activities such as horticulture, plant growing in greenhouses, maintenance of parks, gardens or sport pitches, forestry or other similar activities. 3. However, for the restrictions in paragraph 2, Member States may until 1 July 2014, for socioeconomic reasons, apply a limit of up to 20 % by weight of nitrogen in relation to ammonium nitrate for substances and mixtures placed on the market within their territories. They shall inform the Commission and other Member States thereof.
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Information on Annex I and Annex II of Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors:

CAS No	Name	Annex
6484-52-2	ammonium nitrate	I

Annex I: Restricted explosives precursor.

Annex II: Reportable explosives precursors.

The make available, acquisition, introduction, possession or use of restricted explosives precursor by members of the general public is subject to a restriction as set out in Article 5(1) and (3) of the Regulation (EU) 2019/1148.

15.2 Chemical safety assessment.

The supplier has carried out a Chemical Safety Assessment for the substance/mixture.

SECTION 16: OTHER INFORMATION.

Complete text of the H phrases that appear in section 3:

H272 May intensify fire; oxidiser.
H319 Causes serious eye irritation.

Classification codes:

Eye Irrit. 2 : Eye irritation, Category 2
Ox. Sol. 3 : Oxidising solid, Category 3

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards	On basis of test data
Health hazards	Calculation method
Environmental hazards	Calculation method

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2020/878)



Solarmax N

Version 1 Date of compilation: 5/01/2024

Page 10 of 10
Print date: 05/01/2024

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

BCF: Bioconcentration factor.
CEN: European Committee for Standardization.
DMEL: Derived Minimal Effect Level, exposure level corresponding to a low risk, that risk should be considered a tolerable minimum.
DNEL: Derived No Effect Level, level of exposure to the substance below which adverse effects are not anticipated.
EC50: Half maximal effective concentration.
PPE: Personal protection equipment.
LC50: Lethal concentration, 50%.
LD50: Lethal dose, 50%.
NOEC: No observed effect concentration.
PNEC: Predicted No Effect Concentration, concentration of the substance below which adverse effects are not expected in the environmental compartment.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>
<http://echa.europa.eu/>
Regulation (EU) 2020/878.
Regulation (EC) No 1907/2006.
Regulation (EC) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemical substances and mixtures (REACH).

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.