

SAFETY DATA SHEET

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

- 1.1. Product identifier:
Radistart P Max
- 1.2. Relevant identified uses of the mixture and uses advised against:
Microgranulated starter fertilizer enriched with soil and plant conditioning materials.
For consumer and professional use.
- 1.3. Details of the supplier of the safety data sheet:
Nutrikon Kft.
7696 Hidas, hrsz. 1204.
Tel.: +36-72/457-020
- Information about the manufacturer:
Nutrikon Kft.
7696 Hidas, hrsz. 1204.
- 1.3.1. Responsible person: Nutrikon Kft.; 7696 Hidas, hrsz. 1204
E-mail: info@nutrikon.hu
- 1.4. Emergency telephone number: **Public Toxicological Health Service (ETTSZ)**
1096 Budapest, Nagyváradi tér 2.
Tel.: 06 1 476 6464, 06 80 201 199 (0-24 h)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the mixture:

Classification according to Regulation 1272/2008/EC (CLP):

Eye Dam. 1 – H318

Aquatic Chronic 2 – H411

Warning H statements:

H318 – Causes serious eye damage.

H411 – Toxic to aquatic life with long lasting effects.

Classification according to Directive 1999/45/EC:

Xi, Irritant – R36

N, Dangerous for the environment – R51/53

R phrases referring to the hazards/risks:

R 36 - Irritating to eyes.

R 51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Components which define the hazards: Zinc sulfate monohydrate

GHS05



GHS09



DANGER

Warning H statements:**H318** – Causes serious eye damage.**H411** – Toxic to aquatic life with long lasting effects.**Precautionary P statements:****P102** – Keep out of reach of children.**P280** – Wear protective gloves/protective clothing/eye protection/face 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. Immediately call a POISON CENTER or doctor/physician.**P391** – Collect spillage.**P501** – Dispose of contents/container as waste: take to hazardous or special waste collection point according to the local regulations.2.3. Other hazards:

The mixture has no other known specific hazards for human or environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS3.1. Substance

Not applicable.

3.2. Mixture: Mixture of monoammonium Phosphate (MAP - CAS: 7722-76-1), Dolomite (calcium magnesium carbonate), Dextrine (corn starch), sodium lignosulfonate and the following hazardous component:

Description	CAS number	EC number	REACH reg. nr.	Conc. (%)	Classification				
					67/548/EEC		1272/2008/EC (CLP)		
					Hazard symbol	R phrase	Hazard pict.	Hazard cat.	H phrase
Zinc sulfate monohydrate	7446-19-7	231-793-3	-	5,8	Xn; N	22-41-50/53	GHS05 GHS07 GHS09 Dgr	Acute Tox. 4 Eye Dam. 1 Aquatic Acute 1 Aquatic Chronic 1	H302 H318 H400 H410

For the full text of R and H phrases: see Section 16.

SECTION 4: FIRST AID MEASURES4.1. Description of first aid measures:

General measures: In case of poisoning or allergic reactions, or when suspected, immediately discontinue work and after on the spot first aid the injured person should be transported into hospital.

IN CASE OF INGESTION:

Measures:

- Place the victim into comfortable position.
- If the victim is conscious, flush the mouth of the victim with clear water.
- Immediately give plenty of water to the injured person, starting with dose of 5 dl and additional 2-2 dl in each 10 minutes.
- Obtain medical help.

IN CASE OF INHALATION:

Measures:

- Take the victim into fresh air, loosen his clothes and let him rest.
- In case of complaints, obtain medical help.

IN CASE OF SKIN CONTACT:

Measures:

- Remove the contaminated clothes.
- Wash the contaminated area with plenty of water and soap (for 15 minutes)!
- In case of symptoms, call a physician.

IN CASE OF EYE CONTACT:

Measures:

- Flush the eyes while keeping eyelids away and moving eyeballs (for at least 15 minutes).
- In case of persistent symptoms, obtain medical help.

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

In case of eye contact it irritates the eyes which is accompanied with increased lachrymation and eye redness.

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

No data available.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media:

5.1.1. Suitable extinguishing media:

Extinguishing media appropriate for the surrounding environment: CO₂, powder, alcohol resistant foam or water spray. The possible unsuitability of the extinguishing media is depending on the environment.

5.1.2. Unsuitable extinguishing media:

None known.

5.2. Special hazards arising from the substance or mixture:

The product is non-flammable (fire hazard class "E").

In case of fire, fumes and other combustion products (toxic and irritant sulphur dioxide, carbon dioxide, carbon monoxide, phosphorus oxides, and ammonia) may be formed, the inhalation of such products causes serious health damage.

5.3. Advise for fire fighters

Use appropriate full protective clothes (chemical resistant protective clothes, protective boots and protective gloves) and self-contained breathing apparatus. The fire-fighting liquid cannot enter into sewers or watercourses. Cool the nearby containers with water.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

6.1.1. For non-emergency personnel:

Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders:

Only the trained personnel wearing appropriate personal protective equipment (PVC coated protective clothes, protective gloves, rubber boots, protective glasses with side shields), knowing the necessary measures can be present at the place of the accident. In case of insufficient ventilation wear appropriate respiratory mask with suitable filter.

6.2. Environmental precautions:

Dispose the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. Methods and material for containment and cleaning up:

Collect the spilled mixture mechanically, then place the collected waste into appropriate, labelled, closable hazardous waste container till proper removal/disposal.

6.4. Reference to other sections:

For further and detailed information see section 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Precautions for safe handling:

With cautious work practice the following must be avoided: dispersion and dusting of the product, skin contact with the product, its inhalation and possible ingestion. During the work hours frequently wash hands, after the work hours thorough washing, showering and change of under- and outerwear is required.

In case of poisoning or if poisoning can be suspected, work should be discontinued immediately.

Technical measures:

Ensure adequate ventilation.

Precautions against fire and explosion:

No specific prescription.

7.2. Conditions for safe storage, including any incompatibilities:

Technical measures and storage condition:

The product should be kept in dry, cool and covered place, in original, closed and appropriately labelled packaging.

The place of storage has to be properly ventilated and cleanable.

Follow all instructions on the label.

Protect from direct sunshine.

Recommended storage temperature: 0-35 °C.

Store away from food and feed.

Incompatible materials: none known.

Packaging material: no special prescriptions.

7.3. Specific end use(s):

No specific instructions available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Exposure limit values:

The components of the mixture are not regulated with exposure limit value.

DNEL		Routes of exposure	Exposure frequency:	Remarks:
Worker	Consumer			
no data available	no data available	Dermal	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Inhalative	Short term (acute) Long term (repeated)	no data available
no data available	no data available	Oral	Short term (acute) Long term (repeated)	no data available

PNEC			Exposure frequency:	Remarks:
Water	Soil	Air		
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available
no data available	no data available	no data available	Short term (single use) Long term (continuous)	no data available

8.2. Exposure controls:

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1 Appropriate engineering controls

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

Do not eat or smoke during the handling.

Observe conventional hygiene precautions.

8.2.2 Individual protection measures, such as personal protective equipment (for those who participate in preparatory operations and for users):

1. Eye/face protection: protective glasses with side shield (EN 166).
2. Skin protection:
 - a. Hand protection: rubber protective gloves with PVC coating or rubber gloves (EN 374).
 - b. Other: appropriate protective clothes (protective clothes, protective helmet, protective boots) should be used.
3. Respiratory protection: use appropriate respiratory protection against dust.
4. Thermal hazard: none known.

8.2.3 Environmental exposure controls:

No specific prescription.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions an expert's advice should be sought out before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Parameter	Test method:	Remarks:
1. Appearance:		solid granules
2. Odour:		no data available
3. Odour threshold:		no data available
4. pH value:	in 10 % suspension	4,7 ± 0,5
5. Melting point/ freezing point:		no data available
6. Initial boiling point/boiling range:		not applicable
7. Flash point:		not applicable
8. Evaporation rate:		no data available
9. Flammability:		non-flammable
10. Upper/lower flammability or explosive limits:		no data available
11. Vapour pressure:		no data available
12. Vapour density:		no data available
13. Relative density:		no data available

- | | |
|---|------------------------------|
| 14. Solubility(ies): | soluble in water |
| 15. Partition coefficient: n-octanol/water: | no data available |
| 16. Self-ignition temperature: | not applicable |
| 17. Degradation temperature: | degrades in high temperature |
| 18. Viscosity: | not applicable |
| 19. Explosive properties: | non-explosive |
| 20. Oxidizing properties: | no data available |
- 9.2. Other information:
 Bulk density: 0.85 ± 0.05 kg/dm³
 Moisture content: max. 10 %
 Particle size: 0.4-1.2 mm min. 90 %

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:
None known.
- 10.2. Chemical stability:
Stable within normal temperature and general work conditions.
- 10.3. Possibility of hazardous reactions:
None known.
- 10.4. Conditions to avoid:
None known.
- 10.5. Incompatible materials:
None known.
- 10.6. Hazardous decomposition products:
In case of thermal decomposition toxic and irritant sulphur dioxide, carbon dioxide, carbon monoxide, phosphorus oxides and ammonia forms.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1. Information on toxicological effects:
 Acute toxicity: none known.
 Skin corrosion/irritation: none known.
 Serious eye damage/eye irritation: causes serious eye damage.
 Respiratory or skin sensitisation: none known.
 Germ cell mutagenicity: none known.
 Carcinogenicity: none known.
 Reproductive toxicity: none known.
 STOT-single exposure: none known.
 STOT-repeated exposure: none known.
 Aspiration hazard: none known.
- 11.1.1. For substances subject to registration, brief summaries of the information derived from the test conducted:
No data available.
- 11.1.2. Relevant toxicological properties of the hazardous substances:
 Information about the components:
Zinc sulfate monohydrate (CAS number: 7446-19-7):
 LD50 (oral, rat): 2949 >mg/kg (IUCRID)
 LD50 (oral, mouse): 27 mg/kg
 Symptoms after ingestion: irritation of the mucous membrane of the mouth cavity, pharynx and the oesophagus. Symptoms after inhalation (acute): may cause oedema at the respiratory tract, damage of the airways. Slight skin irritation in the presence of humidity. Causes serious eye damage.
- 11.1.3. Information on likely routes of exposure:
Ingestion, inhalation, skin contact, eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:
In case of eye contact it irritates the eyes which is accompanied with increased lachrymation and eye redness.
- 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:
Causes serious eye damage.
- 11.1.6. Interactive effects:
No data available.
- 11.1.7. Absence of specific data:
No information.
- 11.1.8. Other information:
The classification of this product was performed based on the calculation method detailed in "General Classification guideline for mixtures of the EU" in the latest valid version.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1. Toxicity:
Toxic to aquatic life with long lasting effects.
Do not discharge the mixture, its unused residues, its contaminated packaging material into rivers, dead water, streams or reservoirs.
The nutrients which are present in the product are essential for the proper growth of the plants, despite of this fact in large quantities they can have adverse effects on the sensitive plants. Therefore it is recommended to reduce the amount of the material sprayed into the environment, unless the state of the crop stock makes it reasonable based on the preceding soil and/or histological tests. The product is soluble in water, pay attention to avoid entering into rainwater collection equipment. If large quantity gets into the water, it may cause reversible damage in the flora, fish stocks and in the potable water.
- 12.2. Persistence and degradability
No data available.
- 12.3. Bioaccumulation potential:
No data available on the product.
Information about the components:
Zinc sulfate monohydrate (CAS number: 7446-19-7):
Toxicity for fish:
LC50 (Species: *Oncorhynchus mykiss*): 0.43 mg/l Exposure time: 96h.
Toxicity for Daphnia and other aquatic invertebrates:
EC50 (*Daphnia magna*): 0.15 mg/l Exposure time: 48 h.
Toxicity for algae:
IC50 (Species: *Sc. quadricauda*): 0.52 mg/l Exposure time: H 318 (IUCRID) Highly toxic on aquatic organisms.
- 12.4. Mobility in soil
No data available.
- 12.5. Results of PBT and vPvB assessment
No data available.
- 12.6. Other adverse effects:
Avoid leaking into the soil.

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods:
Disposal according to the local regulations.
- 13.1.1. Information regarding the disposal of the product:
Obtain information from the manufacturer on the recycling/reuse of the product. Do not enter into sewer.
For this product no waste disposal key according the European Waste Catalogue (EWC) can be determined, as only the purpose of application defined by the user enables an allocation. The EWC code can be provided after a consultation with waste management expert.
- 13.1.2. Information regarding the disposal of the packaging:
According to the consideration regarding the product. The packaging can be flushed with water.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:
None known.
- 13.1.4. Sewage disposal:
None known.
- 13.1.5. Special precautions for any recommended waste treatment:
No data available.

SECTION 14: TRANSPORT INFORMATION

- 14.1. UN Number:
3077
- 14.2. UN proper shipping name:
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
- 14.3. Transport hazard class(es)
9
- 14.4. Packaging group:
III
- 14.5. Environmental hazard
Toxic to aquatic life with long lasting effects.
- 14.6. Special precautions for user:
No relevant information available.
- 14.7. 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:

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

DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations

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

COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

REGULATION (EC) No. 2003/2003 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 13 October 2003 relating to fertilisers

15.2. Chemical safety assessment: no information available.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet: none.

Full text of the abbreviations in the safety data sheet:

DNEL: Derived no effect level. PNEC: Predicted no effect concentration. CMR effects: carcinogenicity, mutagenicity and toxicity for reproduction. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent, Very Bioaccumulative. n.d.: not defined. n.a.: not applicable.

Data sources: Data provided by the manufacturer (composition, physical properties).

Methods used for the classification according to Regulation 1272/2008/EC:

Eye Dam. 1 – H318	Based on calculation method
Aquatic Chronic 2 – H411	Based on calculation method

Relevant R-Phrases (number and full text) of Section 2 and 3:

R 22 - Harmful if swallowed.

R 36 - Irritating to eyes.

R 41 - Risk of serious damage to eyes.

R 50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Relevant H-Phrases (number and full text) of Section 2 and 3:

H302 – Harmful if swallowed.

H318 – Causes serious eye damage.

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.

Training instructions: n.d.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations. The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information. The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required. Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product. It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.

Safety data sheet was prepared by: ToxInfo Kft.

Professional help regarding the explanation of the safety data sheet:
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Download of safety data sheet:

