Safety Data Sheet

Reg.: (EC) No 1907/2006 (REACH), (EU) No 453/2010, (EU) No 830/2015, (EU) No 542/2017, (EU) No 878/2020, (EC) No 1272/2008, (EC) No 790/2009, (EC) No 286/2011

Version: 1.0 *Revision date: ---*

Date of previous issue: 09/01/2025

Fertilizer DEKAFLEX 19-19-19+TE

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

1.1 Product identifier

Commercial Product Name : Fertilizer DEKAFLEX 19-19-19+TE

Unique Formula Identifier (UFI) : 4314-P0YD-H007-MMD6

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

Use of the Substance/Mixture : Fertilizer. For consumers and professional users.

1.3 Details of the supplier of the safety data sheet

Company (Distributor) : HELLAGROLIP SA
Pentelis 34A
175 64, Palaio Faliro
e-mail: g.director@hellagrolip.com
www.hellagrolip.com

Telephone : +30 2510 317127, +30 2130 037616

Fax : +30 210 9408198

1.4 Emergency telephone number

In case of medical emergencies, please contact your local poison control center.
Company's Telephone: +30 2510 317127 and +30 2130 037616 (08:30 to 16:30).

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) - CLP

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP].

2.2 Label elements CLP

Hazard pictograms:

Signal word:

Hazard Statements:

Precautionary Statements:

Hazardous components which must be listed on the label:

2.3 Other hazards

No data available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Classified components according to EU Chemicals Legislation:

Chemical name	CAS No / EINECS No / Registration No	Classification (1272/2008/EC)	Concentration [%]
Potassium Nitrate	7757-79-1 231-818-8 01-2119488224-35-XXXX	Ox. Sol. 3, H272	24 – 26 %
Copper disodium EDTA	14025-15-1 237-864-5 ----	Eye Irrit. 2, H319 Acute Tox. 4, H302	≤ 0,20 %
Disodium octaborate	12280-03-4 234-541-0 01-2119490860-33-XXXX	Repr. 1B, H360FD	≤ 0,09 %
Sodium Molybdate	10102-40-6 231-551-7 ----	Acute Tox. 4, H332	≤ 0,01 %

Further information
The substance does not meet the criteria for classification according to Regulation (EC)No. 1907/2006 as PBT or vPvB.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice : In case of accident or if you feel unwell, seek for medical advice immediately. Show the label when possible and/or this safety data sheet to the doctor in attendance.

If inhaled : Avoid inhalation. In case of inhalation, ask immediately for medical help.

In case of skin contact : After contact with skin, wash with plenty of water.
Take off immediately all contaminated clothing and wash it before reuse.

In case of eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids open. If irritation persists, get medical aid.

If swallowed : Typically no exposure pathway.
If accidentally swallowed, rinse the mouth with plenty of water (only if the person is conscious) and ask

immediately for medical help.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms upon:

- **Inhalation:** Cough, Risk of pulmonary edema. Symptoms can appear later.
- **Skin contact:** None known
- **Eye contact:** May cause eye irritation.
- **Ingestion:** No data available

4.3 Indication of any immediate medical attention and special treatment needed

Provide symptomatic treatment.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Co-ordinate firefighting measures to the fire surroundings! Water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder.

Unsuitable extinguishing media : Water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Oxidising property. Non-combustible. In case of fire may be liberated: Nitrogen oxides (NOx).

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

Further information : Keep the doors and windows of the storage room open to give maximum ventilation.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8.

Avoid contact with skin, eyes and clothes. Do not breathe or inhale dust. Ensure sufficient ventilation especially in enclosed spaces.

6.2 Environmental precautions

Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and material for containment and cleaning up

Stop leak if without risk.
During cleanup, you should wear appropriate PPE, to prevent any skin/eye contact and inhalation. Do not use compressed air to clean up spills.

6.4 Reference to other sections

Refer to section: 7, 8, 11, 12 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : Avoid eye and excessive skin contact.
Provide appropriate exhaust ventilation at places where dust is formed.
Do not eat, drink or smoke when handling.
Wash hands after handling

Advice on protection against fire and explosion : Keep away from combustible material.

Dust explosion class : Not applicable.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container protected from direct sunlight in a dry, cool and well-ventilated area.
Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.
Observe hints for combined storage. Keep/store away from clothing/combustible materials. Take any precaution to avoid mixing with combustibles.

Advice on common storage : Keep away from food, drink and animal feedingstuffs.

Storage Temperature : Recommended temperature (15 - 25°C).

Other data : Not applicable

7.3 Specific end use(s)

Fertilizer.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Ingredients with exposure limit values that require monitoring at the workplace:
Not required.

Potassium Nitrate (EINECS: 231-818-8, CAS-No: 7757-79-1):
- TWA(Bulgaria, Latvia, Lithuania): 5 mg/m^3

Disodium octaborate (EINECS: 234-541-0, CAS-No: 12280-03-4):
- No data available

Copper disodium EDTA (EINECS: 237-864-5, CAS-No: 14025-15-1):
- TWA (fumes/smoke): 0,2 mg/m^3 (ACGIHTLV), Measured as: copper (Cu)
- TWA (Dust and mist): 1 mg/m^3 (ACGIHTLV), Measured as: copper (Cu)

Sodium Molybdate (EINECS:231-551-7, CAS-No: 10102-40-6):
- TWA: 5 mg/m^3 OSHA
- TWA: 5 mg/m^3 ACGIH
- DFG MAK TWA (total dust): 5 mg/m^3
- DFG MAK (30 minimum peak, average value, 1 time/shift): 50 mg/m^3

DNEL and PNEC:

Potassium Nitrate (EINECS: 231-818-8, CAS-No: 7757-79-1):

- **PNEC (Aquatic Organisms)**
  PNEC- sewage treatment plant (short-term/single instance) 18 mg/L

Disodium octaborate (EINECS: 234-541-0, CAS-No: 12280-03-4):

- **DNEL/DMEL (Workers)**
  Long-term - systemic effects, dermal 326 mg/kg bodyweight/day
  Long-term - systemic effects, inhalation 6,9 mg/m³
- **DNEL/DMEL (General population)**
  Acute - systemic effects, oral 0,81 mg/kg bodyweight/day
  Long-term - systemic effects,oral 0,81 mg/kg bodyweight/day
  Long-term - systemic effects, inhalation 3,5 mg/m³
  Long-term - systemic effects, dermal 163,3 mg/kg bodyweight/day
- **PNEC (Water)**
  PNEC aqua (freshwater) 2,9 mg/l
  PNEC aqua (marine water) 2,9 mg/l
  PNEC aqua (intermittent, freshwater) 13,7 mg/l
- **PNEC (Soil)**
  PNEC soil 5,7 mg/kg dwt
- **PNEC (STP)**
  PNEC sewage treatment plant 10 mg/l

Copper disodium EDTA (EINECS: 237-864-5, CAS-No: 14025-15-1):

- No data available

Sodium Molybdate (EINECS:231-551-7, CAS-No: 10102-40-6):

- No data available

8.2 Exposure controls

Appropriate engineering controls

Prevent generation of dust. Provide adequate ventilation in work and storage areas.

Personal protective equipment

Respiratory protection	:	Special respiratory protection measures are not required when applied under normal or reasonably foreseeable conditions of use and in a well ventilated area. In case of inadequate ventilation and/or dust formation wear respiratory protection. Recommended: half-mask for dust/particles (EN 149) or half-mask (EN 140) with filter type P1 or FFP1 for dust (EN 143).
Hand protection		
Material	:	Impervious chemical resistant protective gloves (EN 374, EN 420) and gloves for protection from mechanical risks (EN 388).
Glove thickness	:	---
Break through time	:	---

General remarks	:	Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Eye/face protection	:	In case of splash risk. wear safety glasses with side-shields conforming to EN166.
Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	General hygiene measures for the handling of chemicals are applicable. Observe good industrial hygiene practices: • General practical hygiene measures. • Do not breathe vapour /cloud /gas /dust. • When using do not eat, drink or smoke. • Wash hands before breaks and at the end of work. • Avoid contact with skin, eyes and clothing. Take off contaminated clothing and wash before reuse.

Environmental exposure controls

General advice	:	Do not flush into surface water or sanitary sewer system. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation. If the product contaminates rivers and lakes, inform respective authorities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	: Solid
Colour	: ---
Odour	: ---
Flash point	: The product itself is not flammable
Lower Flammable Limit	: Not applicable (does not contain flammable components)
Upper Flammable Limit	: Not applicable (does not contain flammable components)
Autoignition temperature	: The product is not self-ignited
Explosive properties	: There is no risk of explosion of the product
Lower explosive limit	: Not applicable
Upper explosive limit	: Not applicable
pH (20 °C)	: No data available
Melting point / melting range (°C)	: Not applicable
Boiling point/boiling range (°C)	: No data available

Vapour pressure	**:** No data available
Density:	
Loosed kg/cm³	**:** No data available
Tapped kg/cm³	**:** No data available
Solubility in water	**:** No data available
Solubility in other solvents	**:** No data available
Partition coefficient n-octanol/water:	**:** No data available
Viscosity, dynamic	**:** Not applicable
Viscosity, kinematic	**:** Not applicable
Oxidising properties	**:** Not oxidizing

9.2 Other information
None known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Contains reactive substance with oxidising property.

10.2 Chemical stability
The material is stable under normal conditions of use and storage and will not decompose spontaneously. Though, may decompose when heated. The risk of decomposition dependents upon the temperature of the heat source, the duration of exposure to the heat source and the containment of the fertilizer.

10.3 Possibility of hazardous reactions
Can react violently with Aluminium, Combustible materials, Potassium, Carbon, Magnesium, Metal powder, Peroxides, Phosphorus, Reducing agents, Sulphur, Cyanides.

10.4 Conditions to avoid
May decompose when heated. Cross-contamination of the fertilizer with other chemicals must be avoided.

10.5 Incompatible materials
Materials to avoid: combustible materials.

10.6 Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products is not possible to be produced. May decompose when heated. See section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Dangerous health implications

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits (see section 8), it may result in adverse effects on health depending on the means of exposure.

11.1.1. Ingestion:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for ingestion.

11.1.2. Inhalation:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for inhalation (see section 3).

11.1.3. Contact with the skin and the eyes:
Based on available data, the classification criteria are not met, however, it contains substances classified as irritated for the eyes (see section 3).

11.1.4. CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for the effects mentioned.

11.1.5. Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensibilizing effects.

11.1.6. Specific target organ toxicity (STOT)-single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation.

11.1.7. Specific target organ toxicity (STOT)-repeated exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified, as dangerous for inhalation.

11.1.8. Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect.
Given the available data of the individual components

Acute toxicity (oral)

Potassium Nitrate	:	Gastrointestinal complaints, diarrhoea, nausea, vomiting.
Disodium octaborate	:	Not classified
Copper disodium EDTA	:	LD50 rat (oral): > 300 - 2,000 mg/kg
Sodium Molybdate	:	LD50 rat (oral): 4233 mg/kg

Acute toxicity (inhalant)

Potassium Nitrate	:	No data available.
Disodium octaborate	:	Not classified
Copper disodium EDTA	:	LC50 rat (by inhalation): > 5 mg/L 4 h
Sodium Molybdate	:	LC50 rat (by inhalation): > 2.080 mg/m^3 4 h

Acute toxicity (dermal)

Potassium Nitrate	:	No data available.
Disodium octaborate	:	LD50 (dermal-rabbit): >2.000 mg/kg
Copper disodium EDTA	:	LD50 rat (dermal): not determined
Sodium Molybdate	:	LD50 rat (dermal): >2.000 mg/kg

Skin corrosion/irritation

Skin irritation

Potassium Nitrate	:	Frequently or prolonged contact with skin may cause dermal irritation.
Disodium octaborate	:	Not classified
Copper disodium EDTA	:	Not classified
Sodium Molybdate	:	Frequently or prolonged contact with skin may cause dermal irritation

Serious eye damage/eye irritation

Potassium Nitrate	:	No data available.
Disodium octaborate	:	Not classified
Copper disodium EDTA	:	Eye contact causes irritation.
Sodium Molybdate	:	May cause irritation.

Respiratory or skin sensitization

Potassium Nitrate	:	No data available.
Disodium octaborate	:	Not classified
Copper disodium EDTA	:	Skin sensitizing effects were not observed in animal studies.
Sodium Molybdate	:	No data available.

CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction)

Potassium Nitrate	:	Not classified
Disodium octaborate	:	May damage fertility. May damage the unborn child.
Copper disodium EDTA	:	No data available.
Sodium Molybdate	:	Carcinogen Status : None Mutagenic Data : Change inhibition capacity - Escherichia coli 16 mmol/L; sex chromosome Loss and non disjunction - Saccharomyces cerevisae 80 mmol/L Reproductive Effects Data:16474 ug/kg intratesticular - mouse TDLo 1 day male.

STOT - single exposure

Potassium Nitrate	:	Not classified
Disodium octaborate	:	Not classified
Copper disodium EDTA	:	No data available.
Sodium Molybdate	:	No data available.

STOT - repeated exposure

Potassium Nitrate	:	Not classified
Disodium octaborate	:	Not classified
Copper disodium EDTA	:	Not classified
Sodium Molybdate	:	The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies. The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies

Aspiration hazard

Aspiration toxicity

Potassium Nitrate	:	Not classified
Disodium octaborate	:	Not classified
Copper disodium EDTA	:	Not classified
Sodium Molybdate	:	No data available.

Neurological effects

Potassium Nitrate	:	No data available.
Disodium octaborate	:	No data available.
Copper disodium EDTA	:	No data available.
Sodium Molybdate	:	No data available.

Toxicology Assessment

Toxicology, Metabolism, Distribution

With proper handling the product does not cause any damage to health

Acute effects

With proper handling the product does not cause any damage to health

Further information

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to the aquatic environment

Potassium Nitrate	:	No data available.
Disodium octaborate	:	Not classified.
Copper disodium EDTA	:	No data available.
Sodium Molybdate	:	No data available.

Toxicity to fish

Potassium Nitrate	:	LC50 (acute-Fish): >100 mg/L (96h)
Disodium octaborate	:	LC50 (Fish-Limanda limanda): 74 mg/L LC50 (Pimephales promelas): 79,7 mg/L NOEC chronic fish: 6,4 mg/l
Copper disodium EDTA	:	LC50 (Lepomis macrochirus (Fish test acute)): > 100 mg/L (96 h)
Sodium Molybdate	:	LC50 (Mortality) (striped bass): >79,8 mg/L (96)

Toxicity to daphnia and other aquatic invertebrates

Potassium Nitrate	:	EC50 (acute-aquatic invertebrates): 490 mg/L (49h)
Disodium octaborate	:	No data available.
Copper disodium EDTA	:	EC50 (Daphnia magna): > 100 mg/l (48h)
Sodium Molybdate	:	EC50 (Immobilization) (amphipod Crangonyx pseudogracilis): 265 mg/L (96 w)

Toxicity to algae:

Potassium Nitrate	:	EC50 (Algae): >1.700 mg/L (10 d)
Disodium octaborate	:	EC50 (Algae): 66 mg/L EC50 (Algae): 54 mg/L
Copper disodium EDTA	:	EC50 (Pseudokirchneriella subcapitata): > 100 mg/L (growth rate) (72 h)
Sodium Molybdate	:	(Cytogenetic) (Euglena gracilis): 960 mg/L (48 w)

Toxicity to microorganisms:

Potassium Nitrate	:	EC50 (microorganisms): >1.000 mg/L (180 min)
Disodium octaborate	:	No data available.
Copper disodium EDTA	:	No observed effect concentration (3 h) > 100 mg/L
Sodium Molybdate	:	No data available.

12.2 Persistence and degradability

Biodegradability : No data available

12.3 Bioaccumulative potential

Bioaccumulation : No data available

12.4 Mobility in soil

Surface tension : No data available

12.5 Results of PBT and vPvB assessment

The product does not meet the criteria for classification as PBT or vPvB.

12.6 Other adverse effects

Additional ecological information : Prevent surface and ground-water infiltration, as well as ground penetration.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Advice on disposal and packaging : Disposal:
According to National and European regulations. It should not be disposed of with household wastes. The appropriate waste code(s) should be assigned by the user, based on the product usage.

The following Waste Codes are only suggestions:

Waste Code (EWC) : EWC disposal code no. (unused product):
06 10 02 wastes containing dangerous substances
(M) = Mirror entry

Disposal of uncleaned packaging (EWC) : EWC disposal code no. (uncleaned packaging):
15 01 10*(M) packaging containing residues of or contaminated by dangerous substances
(M) = Mirror entry
Note: After rinsing with plenty of water, empty bags can be transported to licensed units / management organizations for recycling.

SECTION 14: TRANSPORT INFORMATION

The product is not subject to international regulations governing the transport of dangerous goods (ADR/RID, IMDG, ICAO/IATA).

SECTION 15: REGULATORY INFORMATION

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

VOC (1999/13/EC) : Not applicable.

Seveso III - DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the control of major-accident hazards involving dangerous substances : Not applicable.

Further information : Fertilizer. For use by professional users and the general public.

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point

15.2 Chemical safety assessment

The Chemical Safety Assessments of the mixture's components have been performed.

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H272: May intensify fire; oxidiser.
H302: Harmful if swallowed.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.
H360FD: May damage fertility. May damage the unborn child.

Revised points:

Acronyms and abbreviations

ADR:	European **A**greement concerning the International Carriage of **D**angerous Goods by **R**oad (2015)
CAS No:	**C**hemical **A**bstracts **S**ervice Number
EmS:	**Em**ergency **S**chedules
EINECS No:	**E**uropean **I**nventory of **E**xisting **C**ommercial **C**hemical **S**ubstances Number
GHS:	**G**lobally **H**armonized **S**ystem of Classification and Labelling of Chemicals
IATA-DGR:	**I**nternational **A**ir **T**ransport **A**ssociation's-**D**angerous **G**oods **R**egulations (56th edition)
ICAO-TI:	**I**nternational **C**ivil **A**viation **O**rganization's-**T**echnical **I**nstructions
IMDG Code:	**I**nternational **M**aritime **D**angerous **G**oods Code (36th - 37th amendment)
RID:	**R**egulations Concerning the **I**nternational Transport of Dangerous Goods by **R**ail

This Safety Data Sheet was elaborated on the basis of information provided by the manufacturer, as well as, suppliers of individual components and on the basis of data in publicly accessible databases.
All information provided herein is deemed reliable and is intended to ensure optimal protection during transport, handling and storage of our products.
However, the present should not be considered as a warranty or quality specification.

Fertilizer DEKAFLEX 19-19-19+TE

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