

MSDS (Material Safety Data Sheet)

Product name: Natural Nano Mix

Brand: Plant Vitales

Manufacturer: Kroon De Jager S.L.

In accordance with Regulation (EU) 2020/878 – Annex II (REACH)

UFI Number: E2U7-4AW7-D20S-FU2N

Version: 1.0

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1. Identification of the substance or mixture and of the company/undertaking

- Product identification: Natural Nano Mix – Plant Vitales
- Use of the substance or mixture: Advanced plant additive based on nano- and microparticles derived from natural volcanic rock for professional use in agriculture and horticulture.

• Details of the manufacturer / supplier:

Kroon De Jager S.L.

Pol. Ind. Bajo Sombra 18

03688 Hondón de las Nieves, Alicante, Spain

CIF: B67426049

✉ info@kroondejager.com

☎ +34 934 18 35 30

- Emergency number: 112

2. Hazard identification

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

o Skin Irrit. 2 – H315

o Eye Dam. 1 – H318

Signal word: Danger

- Hazard pictograms



- Hazard statements:

o H315: Causes skin irritation

o H318: Causes serious eye damage

- Precautionary statements:

o P280: Wear protective gloves/eye protection

o P305+P351+P338: If in eyes: rinse cautiously with water

o P301+P312: If swallowed: if feeling unwell, seek medical advice

o P310: Immediately call a poison center or doctor

- Other hazards:

Not persistent/bioaccumulative. Not PBT/vPvB. Low pH ( $\pm 1.5$ )

## 3. Composition / information on ingredients

Mixture: aqueous solution of natural nano- and microparticles derived from volcanic rock and stabilizers

Component CAS Function REACH Registration Number

Sulfuric acid 7664-93-9 pH adjustment 01-2119458838-20-0006

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## 4. First aid measures

- General: In case of doubt or if symptoms persist, consult a doctor.
  - Inhalation: Fresh air, rest. Consult a doctor if symptoms occur.
  - Eye contact: Rinse immediately with plenty of water, keep eyes open, seek medical help.
  - Skin contact: Rinse with water, remove contaminated clothing.
  - Ingestion: Rinse mouth. DO NOT induce vomiting. Seek medical help immediately.
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## 5. Firefighting measures

- Suitable extinguishing media: Water mist, CO<sub>2</sub>, foam
  - Unsuitable: Direct water jet
  - Hazardous combustion products: Metal oxides
  - Personal protection: Full breathing apparatus, chemical suit
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## 6. Accidental release measures

- Personal precautions: Use PPE (gloves, goggles)
  - Environmental precautions: Prevent release into soil or water
  - Clean-up method: Absorb with inert material (sand, vermiculite), dispose of according to section 13
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## 7. Handling and storage

- Precautions for safe handling:
    - o Avoid contact with skin, eyes, and clothing
    - o Do not eat, drink, or smoke during use
    - o Ensure good ventilation
  - Storage conditions:
    - o Store in a cool, dry, well-ventilated area
    - o Keep frost-free
    - o Store in original, tightly closed container
    - o Keep separate from acids
  - Specific end use:
    - o Plant additive based on natural nano- and microparticles for professional use in agriculture and horticulture
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## 8. Exposure controls / personal protection

- Exposure limits: No legal limits established for the mixture; follow general guidelines for components
- Personal protective equipment (PPE):
  - o Eye protection: Safety goggles according to EN 166

- o Hand protection: Nitrile gloves according to EN 374
- o Respiratory protection: Not required under normal use. If aerosol is formed: P2 filter
- o Skin protection: Suitable work clothing
- Hygiene measures:
  - o Wash hands after use
  - o Remove and clean contaminated clothing immediately

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#### 9. Physical and chemical properties

Property Value  
Physical state Liquid  
Color Clear transparent  
Odor Neutral  
pH  $\pm 1.5$   
Density Approx. 1.1 g/cm<sup>3</sup>  
Solubility Fully miscible with water  
Flash point Non-flammable  
Explosion limits Not applicable  
Oxidizing properties None

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#### 10. Stability and reactivity

- Chemical stability: Stable under normal storage and use conditions
- Conditions to avoid:
  - o Heat
  - o Direct sunlight
  - o Contact with acids and oxidizing agents
- Hazardous reactions: Reacts with acids forming heat and gases
- Hazardous decomposition products: Metal oxides

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#### 11. Toxicological information

- Skin corrosion/irritation (H315): Irritating to the skin
- Serious eye damage/eye irritation (H318): Causes serious eye damage
- Sensitization: No sensitizing effects known
- Chronic effects: No known data on carcinogenicity, mutagenicity, or reproductive toxicity

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#### 12. Ecological information

- Aquatic toxicity: Harmful to aquatic life with long-lasting effects
  - Mobility in soil: Water-soluble; may leach into soil and surface water
  - Persistence and degradability: Contains biodegradable components; metals remain present
  - Bioaccumulative potential: Low for most components; metals may accumulate in sediment
  - Results of PBT and vPvB assessment: Mixture not classified as PBT or vPvB
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## 13. Disposal considerations

- Product waste disposal: Dispose of residues as hazardous waste via certified collection point per local regulations
  - Packaging: Rinse empty containers thoroughly and dispose of via authorized waste handler
- Possible EWC code: 06 10 02\* (waste from fertilizers)
- Additional information: Do not discharge into sewer or environment
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## 14. Transport information

Transport class Information  
ADR/RID Not classified as dangerous  
IMDG Not applicable  
IATA Not classified  
UN number Not applicable  
Shipping name Not applicable  
Packaging group Not applicable  
Environmental risks None under transport criteria  
Special precautions None required

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## 15. Regulatory information

- REACH (EC 1907/2006): Mixture exempt from registration; components listed in section 3 are REACH registered.
  - CLP (EC 1272/2008): Classified based on components (H315, H318)
  - Label elements (CLP):
    - o Signal word: Danger
    - o Hazard pictograms:  
GHS05
    - o Hazard statements:
      - ♣ H315: Causes skin irritation
      - ♣ H318: Causes serious eye damage
    - o Precautionary statements:
      - ♣ P280, P305+P351+P338, P301+P312, P310
  - Seveso Directive (EU): Not applicable
  - Other legislation: Compliant with fertilizer legislation for agricultural use
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## 16. Other information

- Sources of data: Safety data sheets of raw materials, REACH dossiers, CLP regulation
- Training: For professional users only with basic knowledge of handling fertilizers
- Full H-statements:
  - o H315: Causes skin irritation
  - o H318: Causes serious eye damage
- Abbreviations and explanations:
  - o PBT: Persistent, Bioaccumulative, Toxic
  - o vPvB: very Persistent, very Bioaccumulative
  - o CAS: Chemical Abstracts Service
  - o EWC: European Waste Catalogue

- o PPE: Personal Protective Equipment
  - o REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
  - o CLP: Classification, Labelling and Packaging
  - Revision date: First version – 6 August 2025
  - Reason for revision: Initial release
  - Disclaimer: Information compiled to the best of our knowledge. The user is responsible for correct application.
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#### 17. Transport documentation information

- Not applicable — product is not classified under ADR/IATA/IMDG
  - No hazard class required on transport documents
  - Listing as fertilizer or agricultural product permitted
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#### 18. Packaging information

- Primary packaging: HDPE or plastic can
  - Volume sizes: 1 L, 5 L, 10 L, 20 L, 1000 L
  - Labeling: in accordance with CLP + agricultural labeling as per national legislation
  - Cap: childproof cap not required (not a consumer product)
  - Security: must be sealed, store frost-free
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#### 19. Physicochemical compatibility

- Compatible with:
    - o Water
    - o Other liquid fertilizers (if pH-compatible)
  - Do not mix with:
    - o Acids
    - o Strong oxidizing agents
    - o Aluminum/zinc tanks
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#### 20. Customs/export information

- HS code: 3105.90 (Fertilizers – other)
  - Country of origin: Spain
  - Customs document: CE-compliant agricultural fertilizer
  - REACH status: Not applicable to mixture; all components are registered
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#### 21. Application information

- Use:
    - o Foliar fertilizer and soil improver
    - o To be applied via boom sprayer, drip irrigation, or direct foliar spraying
    - o Dosage depends on crop and application (see label advice)
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#### 22. Legal status by region

Region Status  
EU Agricultural fertilizer

NL Authorized for professional use  
DE, FR, ES Released under EU fertilizer regulation  
Export outside EU –

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23. Shelf life information

- Shelf life: Minimum 2 years if stored frost-free
  - Batch number: Indicated on packaging
  - Production date: See packaging or certificate
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24. Certification

- Product manufactured in accordance with:
    - o EU 2020/878 (REACH Annex II)
    - o Internal quality control procedure (ISO level where applicable)
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25. Storage information for customer

- Store between 5–25°C
  - Keep out of direct sunlight
  - Do not store in metal containers
  - Keep safety pictograms visible
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26. Contact point for technical questions

- Name: Technical Department – Kroon De Jager S.L.
- Email: [info@kroondejager.com](mailto:info@kroondejager.com)
- Languages: Dutch, English, Spanish
- Availability: Mon–Fri 09:00–17:00 Emergency number: +34 934 18 35 30