

SAFETY DATA SHEET

According to Regulation (EC) N° 1907/2006

DATE OF ISSUE: 07/10/2010

COMPANY NAME: BIOVERT S.A.

PRODUCT: MANVERT KINOFOL

DATE OF CREATION: 10/03/2009

No. REVISIONS: 2

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SECTION I – IDENTIFICATION OF SUBSTANCE/PREPARATION AND THE COMPANY

1.1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION

COMERCIAL NAME: MANVERT KINOFOL

CHEMICAL NAME: AMINOACIDS

SYNONYMS:

1.2. USE OF THE SUBSTANCE OR PREPARATION: Agricultural use.

1.3. COMPANY IDENTIFICATION:

BIOVERT S.A.

Ctra. C-12 Km.150,5 25137 CORBINS (Lleida) SPAIN

Tel. +34 973 190 707 Fax. +34 973 191 131

e-mail: msds@manvert.com

1.4. EMERGENCY PHONE NUMBERS AND CONTACTS

National Toxicology Institute: +34 91 562 04 20 (24h available)

SECTION II– HAZARDS IDENTIFICATION:

2.1. CLASSIFICATION OF THE PREPARATION

The preparation is classified as **no dangerous** according to Directive 1999/45/CE.

2.2. ELEMENTS OF THE LABEL

Safety phrases: S2, S13

Pictogram: none

2.3. INFORMATIONS PERTAINING TO DANGERS FOR HUMAN AND ENVIRONMENT

Effects of Exposure:

- Inhalation: This solution is handled in cold (room temperature) so it is unlikely the gas evolution.
- Ingestion: Small quantities are unlikely to cause toxic effects. In large amounts, can cause disorders in the gastrointestinal tract.

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- Skin: In normal conditions, no adverse affects are expected; there may be a risk of irritation.
- Eye: The splash in the eyes may cause irritation.

Effects on the environment: do not require special precautions. It must comply with existing legislation on environmental protection.

SECTION III- PRODUCT COMPOSITION:

Description:

	% w/v
Folic acid	0,47
Citokinins	0,005

Nº CEE: Nº ONU: Nº EINECS: Nº CAS:

Hazard ingredients:

Chemical name	NºEC	Nº REACH	Nº Index	Nº CAS	Conc. (%)	Classification Regulation EC Nº 1272/2008 (CLP)		Classification according to 67/548/EEC	
						Hazard categories	H-Phrases	Classification	R-Phrases
None									

* To view the full text of R- and H-phrases: see section 16

SECTION IV.- FIRST AID MEASURES:

4.1. DESCRIPTION OF THE FIRST AID MEASURES

- General informations: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed.
- In case of skin contact: Wash with soap and water.
- In case of eye contact: Wash immediately with abundant water for 15 min.
- In case of inhalation: Remove the victim from the contaminated area.
- In case of ingestion: Make the victim drink abundant water. Call medical assistance.
- Self-protection of the first aider: Protective equipment (gloves, goggles, boots, mask and protective suit)

4.2. MAIN SYMPTOMS AND EFFECTS, ACUTE AND DELAYED

N.D.

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4.3. INDICATIONS TO PHYSICIAN:

- Symptoms: N.D.
- Hazards: N.D.
- Treatment: N.D.

SECTION V.- FIRE FIGHTING MEASURES

Not flammable or explosive.

5.1. SUITABLE EXTINGUISHING MEDIA:

RECOMMENDED: Carbonic foam extinguisher. Water.
NOT RECOMMENDED: None.

5.2. SPECIFIC HAZARDS ARISING FROM THE MIX

- Hazards caused by the substance or preparation itself, combustion products or resulting gases: not flammable.

5.3. RECOMMENDATIONS FOR FIRE FIGHTING

- Special protection for fire-fighters: Wear boots, overalls, gloves, eye protection and face, and breathing apparatus.
- Additional information: Avoid spraying water directly on hot surfaces, because there is danger of splashing.

SECCION VI.- MEASURES TO BE TAKEN IN CASE OF SPILLAGE:

6.1. PERSONAL AND PROTECTIVE PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Keep personnel away from the affected zone.

6.2. ENVIRONMENTAL PRECAUTIONS

Stop the product from entering drains, enclosed premises and waterways.

6.3. METHODS FOR CLEANING UP

Vacuum the product for storage in containers for recycling.

Additional information: personnel handling the product must wear protective equipment (gloves, goggles, boots, mask and protective suit).

6.4. REFERENCE TO OTHER SECTIONS

None.

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SECTION VII.- STORAGE AND HANDLING:

7.1. PRECAUTIONS FOR SAFE HANDLING

Tips for safe handling:

Protective measures: before opening the container put on protective equipment.

Technical measures:

Measures to prevent the aerosol and dust generation: none

Measures required to protect the environment: avoid spillage and keep the product away from drains.

Specific requirements or handling rules:

Do not eat, drink or smoke in work areas.

Wash hands after use and shed clothing and contaminated protective equipment before entering eating areas.

Precautions against fire and explosion: none.

Further information: none.

7.2. SAFE STORAGE CONDITIONS

Technical measures and storage conditions: storage in suitable containers no higher than three levels.

Packing Materials:

Incompatible products: none.

Requirements for storage rooms and vessels: store in area designated for this product to avoid being manipulated by unauthorized personnel.

Hints on storage assembly: -

Storage class: -

Futher information on storage conditions: none.

7.3. SPECIFIC USES

Recommendations: none.

Specific solutions for the industrial sector: none.

SECCION VIII.- CONTROL OF EXPOSURE AND PERSONAL PROTECTION:

8.1. EXPOSURE LIMIT VALUES

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8.1.1. COMPONENTS WITH OCCUPATIONAL EXPOSURE LIMITS RSP. BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS REQUIRING MONITORING

N.D.

8.2. EXPOSURE CONTROLS

Occupational exposure controls:

- Engineering measurement indicators

- Measurement of MAC values at the worksite: none.
- Additional information: none.

- Personal protective measures:

- General protection and hygiene measures: those customary for handling liquid products.
- Respiratory protection: not necessary.
- Hand protection: gloves.
- Eye protection: goggles.
- Body protection: overalls.
- Special protective measures: none.

Environmental exposure controls:

Use in a well ventilated area.

Consumer exposure controls:

Keep out of reach of children.

Keep tightly closed.

Keep away from food, beverages and feed.

Avoid contact with eyes and skin.

Wear protective clothing, gloves and eye protection and face.

In case of accident, seek medical advice immediately (if is possible show the label).

Keep only in original container.

SECTION IX.- PHYSICAL AND CHEMICAL PROPERTIES:

9.1. INFORMATION ABOUT PHYSICAL AND CHEMICAL PROPERTIES

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	Value	Method
Appearance	Liquid solution opaque	Visual
Colour	Dark brown-black	Visual
Odour	Typical	
pH	8,0 ± 0,5	pH-meter
Melting point	Not applicable	
Freezing point	N.D.	
Boiling point	100°C	
Boiling range	N.D.	
Flash point	Not applicable	
Evaporation rate	N.D.	
Inflammable	Not applicable	
Upper/lower inflammability limit	Not applicable	
Upper/lower explosive limit	Not explosive	
Vapour pressure	None	
Vapour density	N.D.	
Bulk density	1,17 ± 0,05 g/ml	Densimeter
Water solubility	Soluble in all portions	
Partition coefficient (n-octanol/water):	Not applicable	
Auto-inflamable temperature	Is not	
Decomposition temperature	N.D.	
Viscosity	N.D.	
Explosive properties	Not explosive	
Oxidizing properties	N.D.	

9.2. OTHER INFORMATION

None

SECTION X.- STABILITY AND REACTIVITY:

10.1. REACTIVITY

Strong oxidizing environments.

10.2. CHEMICAL STABILITY

Preparation stable under normal environmental conditions of temperature and pressure during storage and handling.

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10.3. POSSIBILITY OF HAZARDOUS REACTIONS

No, under normal conditions of use.

10.4. CONDITIONS TO AVOID

Strong oxidizing environments.

10.5. MATERIALS TO AVOID

Strong oxidant.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

No, under normal conditions of use.

SECTION XI. - TOXICOLOGICAL DATA:

- Toxicity: Non toxic.
- Acute Toxicity LD₅₀ (rat): Not determined
- Irritation: N.D.
- Corrosivity: N.D.
- Dermal toxicity: N.D.
- Toxicity for repeated doses: N.D.
- Carcinogenicity: N.D.
- Mutagenicity: N.D.
- Reproductive toxicity: N.D.

SECTION XII.- ECOLOGICAL INFORMATION:

12.1. TOXICITY

- Acute fish toxicity: LC₅₀ (Goldenorf): N.D.
- Acute crustacean toxicity: EC₅₀: N.D.
- Acute algae toxicity: IC₅₀: N.D.
- Toxicity to bacteria: Test TTC: N.D.
- DBO₅ (mg O₂/g): 143
- DQO (mg O₂/g): 369
- Eco-toxicity: No adverse effect compared fauna aquaculture and land. A high concentration in water can make it unfit for human consumption and animal.

12.2. PERSISTENCE AND DEGRADABILITY

- Biodegradability: good biodegradability
- Bioconcentration factor (BCF): N.D.
- Ecotoxicity long period: N.D.

12.2. BIOACUMULATION POTENTIAL

N.D.

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12.3. MOVILITY

- Surface tension: N.D.
- Adsorption/Desorption: N.D.

12.4. RESULTS OF PBT ASSESSMENT: This preparation does not require a chemical safety report, so that no data are available.

12.5. FURTHER ECOLOGICAL INFORMATION: N.D.

SECTION XIII.- REMOVAL CONSIDERATIONS:

In accordance with the local authorities, for example, through controlled incineration or delivering the product to companies specializing in waste treatment.

Do not discharge into wastewater.

The containers must be incinerated in approved locations.

SECTION XIV.- TRANSPORT DATA:

Not dangerous cargo in accordance with to transport regulations

RTMD-ADR: Not classified

RID. Not classified

IMDG/IMCO: Not classified

IATA. Not classified

SECTION XV.- REGULATORY DATA:

15.1. REGULATION AND LEGISLATION

Labelling for hazardous substances in accordance with EEC directives: There is no mandatory labelling.

CUSTOMS STATUS:

- Harmonized systems: 310590

- EEC combined nomenclature: 310590

Labelling (1999/45/EC)

Hazard symbols and hazard statements of dangerous preparation:

S2: Keep out of reach of children.

S13: Keep away from food, beverages and feed.

15.2. CHEMICAL SAFETY ASSESSMENT:

Has not conducted a chemical safety assessment of the mixture.

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SECCION XVI.- OTHER INFORMATION

Use: Liquid fertilizer that stimulates plant growth by increasing the quantity and quality of the crop.

Abbreviations:

N.D. = No data

Text of R and H phrases mentioned in Sections 2 and 3:

S2: Keep out of reach of children.

S13. Keep away from food, beverages and feed.

Workers training recommendations: N.D.

Assessment information on classification methods: N.D.

Bibliography: N.D.

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*The data provided in this safety data sheet are based on our current knowledge. It characterizes security measures in the handling of this product and do not represent a guarantee of the properties of the product.
This information applies to product which conforms to specifications. In the case of combinations and mixtures, make sure that no new danger can occur.
It is always the responsibility of the user to take appropriate measures to comply with the requirements of current legislation.*