

SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006

Date: 30-04-2020

Version: 4.00

Product Name: MicroAktiv®-DL

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

1.1 Product Identifier

Product Name : MicroAktiv®- DL Deodorizer/Liquefier Bioformula
Product form : Granular powder
Product code : 9008
Product description : Non-pathenogenic naturally occurring microorganisms and degradation enzymes absorbed on wheat bran and corn gluten.

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

Identified Uses : For use in animal manure treatments.

1.3 Details of the supplier of the safety data sheet

Company : QM Environmental International B.V.
Henricuskade 123A
The Hague, 2497 NB, The Netherlands
Phone : +31 858 768 862
Fax : +31 847 466 328
E-mail : info@microaktiv.com
Website : http://www.microaktiv.com

1.4 Telephone number in case of emergencies

Telephone number : +31-653229465
(only available from 8:00 a.m. to 11:00 p.m. Central European Time (UTC + 1:00))

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture

Classification in accordance with Global Harmonization Systems (GHS) and Classification Labeling and Packaging Regulation (EC) No 1272/2008 (CLP)

Health

Mixture classified as not dangerous according to Regulation (EC) 1272/2008

2.2 Label elements

Hazard Pictogram : -
Signal Word : -
Hazard Statement(s) : EUH208: Contains protease and amylase.
May produce an allergic reaction.
Precautionary statements : -

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Further information: Persons who have a compromised immune system or a history of severe allergic response should avoid contact and/or breathing dust or mist from product handling or manufacturing processes. Crystalline silica is a known cause of silicosis (a non-cancerous lung disease). Prolonged and/or repeated inhalation must be avoided.

2.3 Other Hazards

Special Risks : None

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance

3.2 Mixture

Chemical Identity				
Common name				
Synonyms	Non-pathenogenic. Naturally occurring microorganisms and degradation enzymes absorbed on wheat bran and corn gluten.			
Hazardous Components				
Chemical Name (Concentration)	% by weight	CAS-No	EC. No.	Classification according to Regulation (EC) No. 1278/2008 (CLP)
<i>Crystalline silica (< 0.1%)</i>	<0,2	14808-60-7	238-878-4	Carc. 2- H351 STOT. RE 2- H373
<i>Amylase</i>	< 1	9000-90-2	232-565-6	Resp. Sens. 1 - H334
<i>Protease</i>	< 1	9014-01-1	232-752-2	Skin Irrit. 2- H315 Eye Irrit. 2 - H319

The product contains components which are exempt from REACH registration based on EC1907/2006 Art. 6.1 "Less than 1 ton import per year for the substances in the mixture requiring registration"

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

GENERAL NOTES	: The microbes in this product are Class 1 microbes, defined by the EEC directive 2000/54 as not likely to cause disease in healthy humans and animals. However, persons who have a compromised immune system or a history of severe allergic response should avoid contact with open wounds and/or breathing dust or mist from product handling or manufacturing processes.
INHALATION:	: May cause sensitization by inhalation in hypersensitive individuals. Avoid product handling which results in dust generation. If inhaled, remove from contaminated area to fresh air. Report situation. Seek

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	medical attention if allergic response exhibited.
EYE CONTACT	: May cause eye irritation. Direct contact with eyes should be avoided. In case of contact with eyes, flush eyes with low pressure water for at least 15 minutes and seek medical attention.
SKIN CONTACT	: Product may cause skin irritation. Direct contact with skin should be avoided. In case of contact with skin, wash skin with soap and water. Remove contaminated clothing and wash.
INGESTION	: Ingestion of material may cause mouth and throat irritation and/or gastric disturbance. If swallowed, rinse mouth and throat with tap water. Drink water.

SELF PROTECTION

OF THE FIRST AIDER : Wear protective clothing, gloves, breathing apparatus and eye protection when removing subject from the scene.

4.2 Most important symptoms and effects, both acute and delayed

Skin irritation and gastric disturbance.

4.3 Indication of any immediate medical attention and special treatment needed

In case of symptoms

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media : Dry chemical, carbon dioxide, water spray or foam.

Unsuitable extinguishing media : None

5.2 Special hazards arising from the substance or mixture

Hazardous combustion product : No special requirements. This material is not highly combustible but contains organic matter which may be explosive as a dust in very high concentrations. Generally considered a low explosion hazard. Burning may produce sulfur oxides.

5.3 Advice for firefighters

Product itself is not flammable. Organic dusts are a weak explosion hazard. Plastic pail will melt under the influence of heat

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SECTION 6. ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Protective equipment	:	See section 8 for protective equipment.
Emergency procedures	:	Provide sufficient ventilation, provide eyewash capability. Avoid creating dust.

6.1.2 For emergency responders

Protective equipment	:	See section 8 for protective equipment.
Emergency procedures	:	Provide sufficient ventilation, provide eyewash capability. Avoid creating dust.

6.2 Environmental precautions

None.

6.3 Methods and materials for containment and cleaning up

Spilled product should be removed immediately to avoid formation of dust. Store in suitable container. Wash down with water. Dispose to landfill. Provide sufficient ventilation.

6.4 Reference to other sections

Refer to Section 8 for protective equipment and Section 13 for disposal considerations

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures	:	Avoid creating dust. Adequately ventilate when handling this product. Provide eyewash capability.
Measures to prevent fire	:	No special requirements
Measures to prevent aerosol and dust generation	:	Keep product confined in closed container. When working with powder prevent dust formation gentle interaction with the product.
Measures to protect the environment	:	N/A
Advice on general occupational hygiene	:	Do not eat, drink and smoke in work areas/ wash hands after use/ remove contaminated clothing and protective equipment before entering eating areas.

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7.2 Conditions for safe storage, including any incompatibilities

Store in a suitable container, No special requirements. This material is not highly combustible but contains organic matter which may be explosive as a dust in very high concentrations. Generally considered a low explosion hazard.

7.3 Specific end use(s)

Recommendations : None

Industrial sector specific solutions : None

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Name	CAS no.	EC. No.	% by Weight	EU BOEL	PEL (OSHA)
Crystalline silica	14808-60-7	238-878-4	< 0.2	0,1 mg/m ³ / TGG 8u	0.1 mg/m ³
Protease	9014-01-1	232-752-2	< 1	0,00006 mg/m ³ (as pure protease)	
Amylase	9000-90-2	232-565-6	< 1	0,000010 mg/m ³ / TGG 8u	

* Specific limits not set for these chemicals. Limits are shown for Particles Not Otherwise Regulated (PNOR) or Particles Not Otherwise Classified (PNOC). First number is for total dust, second number { } is for respirable dust.

8.2 Exposure controls

8.2.1. Appropriate engineering controls

The product is installed in wastewater treatment systems. Exposure to workers is limited. Workers are required to take the necessary precautions for the safe installation of the product.

8.2.2. Personal Protection Equipment



Respiratory Protection

Dust mask or respirator for particle removal (NIOSH)



Skin Protection

Wear long-sleeve shirt, trousers and/or coveralls and gloves (rubber or vinyl).



Eye Protection

Safety glasses with side shields or face shield



Industrial Hygiene

Maintain good housekeeping. Avoid dusty conditions. Wash hands and exposed skin after contact. Avoid contact with food or food preparation surfaces. If exposure of food surfaces occurs, wash with germicidal detergent or chlorine bleach. Remove and wash contaminated clothing

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8.2.3 Environmental Exposure Controls

N/A

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical/Chemical Property	Value
Appearance	Granulated Powder
Colour	Light brown
Odour	Mild odour
Odour Threshold	Information not available
pH (1% suspension)	6 - 9 (1% suspension)
Melting point / freezing point (°C)	Information not available
Initial boiling point and boiling range(°C)	Does not apply
Flash point	Does not apply
Evaporation rate	Does not apply
Flammability (solid, gas)	Information not available
Upper flammability / Lower flammability or explosive limits	Does not apply
Vapour pressure	Does not apply
Vapour density	Does not apply
Relative density (@25°C)	Information not available
Solubility in water	< 5% in water
Partition coefficient: n-octanol/water	Does not apply
Auto-ignition temperature	Information not available
Decomposition temperature	Information not available
Viscosity	Does not apply
Other Physical/Chemical Properties	Information not available

9.2 Other information

None

SECTION 10. STABILITY AND REACTIVITY

10.1	Reactivity	:	Stable under normal conditions
10.2	Chemical stability	:	Stable under normal conditions
10.3	Possibility of hazardous reactions	:	Information not available
10.4	Conditions to avoid	:	Freezing or temperature over 40°C (100°F)
10.5	Incompatible materials	:	Strong acids, bases or oxidizers
10.6	Hazardous decomposition products	:	Information not available

SECTION 11. TOXOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1. Substances N/A

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11.1.2. Mixtures

Acute Toxicity	Information Not Available
Skin Corrosion/Irritation	Information Not Available
Serious Eye Damage/Irritation	Information Not Available
Respiratory or Skin Sensitization	May cause respiratory allergy in susceptible individuals: sensitization (shortness of breath, wheezing, and labored coughing) take individual to emergency room
Ingestion	Information Not Available
Germ Cell Mutagenicity	Information Not Available
Carcinogenicity	Crystalline silica probably carcinogenic NTP: No IARC Monographs: No OSHA Regulated: No
Reproductive Toxicity	Information Not Available
Specific Target Organ Toxicity – Single Exposure	Information Not Available
Specific Organ Toxicity – Repeated Exposure	Information Not Available
Aspiration Hazard	Information Not Available
General Remarks	Product may contain <0.2% crystalline silica (CS). IARC has classified CS as probably carcinogenic for humans (2A). NTP lists CS as a substance which may reasonably be anticipated to be a carcinogen. CS is a known cause of silicosis (a non-cancerous lung disease). Enzymes in this product are non-toxic (LD 50 >2 g/kg in rats).

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity	No eco-toxicity reported for mixture and individual ingredients. Application of product to water sources may stimulate algae growth.
12.2 Persistence and degradability	Product is readily biodegradable.
12.3 Bioaccumulative potential	Information Not Available
12.4 Mobility in soil	Information Not Available
12.5 Results of PBT and vPvB assessment	Not required
12.6 Other adverse effects	Information Not Available
12.7 Additional information	None

SECTION 13. DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods**
- 13.1.1 Product / Packaging disposal**

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Waste codes / waste designations according to EURL:

Product: : n/a

Packaging : 150102

13.1.2 Waste treatment – relevant information

Dispose of in accordance with current local, regional or national regulations. Treat as non-hazardous waste. Dispose in non-hazardous permitted facilities.

13.1.3 Sewage disposal-relevant information

N/A

13.1.4 Other disposal recommendations

Treat as non-hazardous waste. Dispose in non-hazardous permitted facilities.

SECTION 14. TRANSPORT INFORMATION

14.1 UN Number	Mixture not classified as Hazardous according to Regulation (EC) 1272/2008
14.2 Un Proper shipping name	
- Classification according to ADR/RID/IATA/IMDG	N/A
- Classification Code	N/A
- Label	N/A
14.3 Transport hazard class (es)	N/A
14.4 Packing group	N/A
14.5 Environmental hazards	N/A
14.6 Special precautions	N/A
14.7 DOT shipping name	Chemicals not otherwise indexed (NOI) non-hazardous

SECTION 15. REGULATORY INFORMATION

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

Preparation does not contain ingredients listed as dangerous substances in Annex 1 of the EEC directive 67/548 and pathogenic bacteria as listed in Annex III of the EEC directive 2000/54.

Components not precisely identified are proprietary or non-hazardous. All chemical ingredients appear on the US EPA TSCA inventory.

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National regulations

German Water Hazard Class (WGK): 1

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier as it classifies the mixture does not meet the criteria for classification as dangerous.

SECTION 16. OTHER INFORMATION

Key: N/A= not applicable

The information contained in this Safety Data Sheet, as of the issue date, is believed to be true and correct. However, the accuracy or completeness of this information and any recommendations or suggestions are made without warranty or guarantee. Since the conditions of use are beyond the control of our company, it is the responsibility of the user to determine the conditions of safe use of this product. The information in this sheet does not represent analytical specifications; for this information contact QM Environmental International B.V., Technical Department.

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