

## Bioactivator for Improved Biogas Production in anaerobic co-digesters

### ■ DESCRIPTION

**MicroAktiv®-BY** is a natural product which when used results in an improved ecosystem of sludge digesters. The micro organisms present in the digester, which are responsible for the transformation of the organic matter and retrieve their energy from this process, can work optimal with the use of **MicroAktiv®-BY**. This results in an improved methanogenic phase of the digestion process which results in higher biogas yields. Scientific research has demonstrated that, regardless of the size of the digester, an increase of biogas production from 5 to 25% can be achieved.



### ■ ACTION

Bacterial strains that are necessary for the breakdown of substrate materials in anaerobic co-fermentation installations in agriculture can be hindered in their activity as a result of an incorrect nutrient balance. In particular, a shortage of trace elements is often a cause of reduced biological activity. **MicroAktiv®-BY** supplies the necessary trace elements to the bacteria so that they can continue their decomposition activities unhindered. **MicroAktiv®-BY** also supplies a natural biosurfactant that accelerates transport through the cell membrane of the bacteria, so that the bacteria work with a higher activity than normal.

**MicroAktiv®-BY** is composed out of fermented plant and seaweed extracts and contains trace elements, vitamins and enzymes that can be fully taken up by micro organisms which are present in the digester. This results in:

- A more stable ecosystem in the digester
- A more effective digestion process resulting in higher biogas yields
- Reduced foul odours
- Reduced degradation times
- A better CH<sub>4</sub>/CO<sub>2</sub> ratio
- An improved quality of the digested matter.

Adding **MicroAktiv®-BY** to your digester results in a higher biogas yield and is therefore very cost effective. **MicroAktiv®-BY** is completely composed out of natural raw materials and is completely safe for humans and the environment.

■ **APPLICATION**

MicroAktiv®-BY is a concentrated liquid which is used by diluting it 1:100.000, depending on the dry matter content in the digester. It operates as a biostimulant in the digesting process for both biomass, manure and mixed waste digesting processes.

MicroAktiv®-BY can be used in anaerobic co-digestion installations in the agricultural sector, but also digestion installations in waste processing.

■ **PRODUCT CHARACTERISTICS**

Appearance	Dark brown, clear, non-viscous liquid
Ingredients	<p><b>Enzymes:</b> Desmolases; Hydrolases; Lyases; Transferases; Trypsin.</p> <p><b>Organic fatty acids:</b> Aspartic Acid; alginic acid; butyric acid; Citric acid; cholic acid; Deoxycholic acid; Gallic acid; Lactic acid; malic acid; Mannitol; Pyruvic acid.</p> <p><b>Vitamins:</b> biotin; B12; Carotene; Choline; Cryptoxanthin; Ergocalciferol; folic acid; folic acid; Niacin; Riboflavin; Thiamine; Tocopherol.</p> <p>Growth Stimulators: Adenine (Cytokinins); Auxin (IAA, ABA); betaines; Tripeptide Glutation; 3-adenylic acid.<b>Mineralen (µg / l):</b> aluminium 1900; Antimoon &lt;100; Arseen 440; Barium 80; Beryllium &lt;10; Boron 40; Cadmium &lt;20; Calcium 99500; Chloor 376000; Chroom 55; Cobalt 20; Goud &lt;23; Jodium 30; IJzer 3050; Koper 150; Kwik 75; Lood &lt;100; Magnesium 97000; Mangaan 1200; Molybdenum 20; Nikkel 60; Stikstof 570000; Kalium 1625000; Fosfor 1405000; Selenium 200; Silica&lt;27; Natruim 1182500; Strontium 3850; Zwavel 410; Tin &lt;200; Titanium 40; Wolfram 25; Vanadium 25; Zink 480</p>
Shelf Life	1 Jaar
Packaging	20 L Jerrycans, 200 L drums, 1000 L IBC

■ **STORAGE AND HANDLING:**

<b>Storage</b>	13° - 25°C Store indoors at room temperature. DO NOT FREEZE. DO NOT EXPOSE TO DIRECT SUNLIGHT
<b>Handling</b>	<p><b>PAY ATTENTION</b></p> <p>In case of skin contact, wash well with soap and water. Do not take. Non-toxic or pathogenic, harmless to aquatic organisms.</p>

MicroAktiv® is a registered trade name

The information provided in this datasheet is a guideline for the use of MicroAktiv® products and is based on testing and information believed to be reliable. All information is given to and accepted by the user at the user's own risk, confirmation of its validity and suitability for specific cases is deemed to be obtained independently by the user. QM Environmental International B.V. does not guarantee results of any kind and assumes no obligation or liability in relation to the information provided here. QM Environmental International B.V. does not guarantee in any way to use a patent, and this data sheet can therefore not be considered as a license of a patent.