

For reduction of ammonia and odor in cattle, pig and poultry stables

■ INTRODUCTION

In (intensive) livestock farming, so-called concentrate feeds are widely used. Part of the protein in these concentrates is not absorbed by the animal, but ends up in the environment via the urine in the form of urea. This urea is converted by the bacteria present in the solid faeces into ammonium, which evaporates as ammonia gas (NH_3). In addition, the anaerobic decomposition of the manure in the basement can release sulphur, which is present in these proteins, in the form of sulphate. This sulfate, in turn, is used by sulfate-reducing bacteria (SRBs) that use it to feed on the organic matter in the manure. This creates sulfides (HS^- & S^{2-}) that escape from the manure as hydrogen sulfides (H_2S). This can be recognized as a rotten egg smell.



The ammonia (NH_3) and hydrogen sulfide gas (H_2S) together with various other gases, such as mercaptans, which are mainly caused by an imbalance in the manure, cause odour nuisance and a deterioration of the air quality in the stables and the area around the farm. The addition of **MicroAktiv®-BS** restores the balance in the manure, preventing these gases from being formed and significantly reducing the pungent odour. The bacteria, which are naturally present in the manure, are also stimulated and ensure a better conversion of the manure. As a result, the manure remains much more homogeneous in composition.

■ HOW IT WORKS



MicroAktiv®-BS is a bioactivator and restores and strengthens the natural balance in the manure. No micro-organisms are added, but the micro-organisms, which are naturally present in manure, are stimulated. This accelerates the decomposition of urea and ammonium in particular. In an optimal microbial ecosystem on the living floor and in the manure cellar, nitrifying and denitrifying bacteria are in balance, so that the conversion of urea to nitrate is optimal. Due to the formation of nitrate in the manure, SRBs cannot develop and this prevents the formation of a rotten egg smell.

Scientific research has shown that the use of **MicroAktiv®-BS** quickly reduces ammonia emissions in pig and chicken houses. This has a beneficial effect on the animals. They are less stressed, and get fewer respiratory diseases. Partly because of this, the feed conversion is more favourable and the animals reach their target weight with less feed.



MicroAktiv®-BS is composed out of fermented plant and seaweed extracts and contains trace elements, vitamins and enzymes that can be fully taken up by microorganisms which are present in the manure or living floor. This results in:

- More stable, more active;
- More homogeneous and therefore easier to pump;
- Less ammonia and hydrogen sulfide emissions;
- Improved living conditions for the animals, which therefore have less stress and diseases;
- Reduced development of pathogenic bacteria such as Salmonella sp., Listeria monocytogenes, Staphylococcus hyicus and Clostridium perfringens;
- Better food conversion and lower mortality rate → higher yield

■ **PRODUCT CHARACTERISTICS:**

Appearance	Dark liquid
Contents	Fermented plant and seaweed extracts
Shelf Life	1 Year
Packaging	20 L Jerrycans, 200 L drums or 1000 L IBC's

■ **APPLICATION**

MicroAktiv®-BS is a highly concentrated liquid which can be diluted before use and the dilution can be nebulized over the floor surface of the stable. The dosage is 1 litre for every 1000 m² of floor surface.

- For pig stables nebulize 1x per week
- For small chickens nebulize once after 4 days after the growing cycles over the floor surface.

MicroAktiv®-BS can be diluted indefinitely with water to make enough spray liquid to cover the floor surface. It can be applied with a simple backpack sprayer or misting system.

■ **STORAGE & HANDLING**

Storage	10° - 20° C; DO NOT FREEZE
Handling	MicroAktiv®-BS is a completely biological liquid that is harmless to humans and animals. No specific safety measures are required when applying the product, with the exception of clean industrial hygiene measures. Follow the instructions on the product safety data sheet.

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