

Odour Control In Wastewater Treatment Plants



MicroCat[®] -ANL

H₂S & Volatile fatty acids odour reduction

Improved Flocculation & Settling of Sludge

Fat, Oil & Grease Removal

Reduced Aeration Demand

Let our bugs eat your Waste[®]

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Wastewater Treatment

Over 25 years MicroCat®-products have been a successful solution for many different problems occurring in biological wastewater treatment installations. Problems such as: fat, oil and grease accumulation, poor settling, foaming, H_2S -production, poor BOD/COD removal, failing nitrification and denitrification and odour problems have been cost effectively resolved by applying MicroCat®-products in thousands of wastewater treatment plants. After problem solving a preventative maintenance dose can be applied to prevent these problems from reoccurring in the future. A stable operating treatment plant resulting in an overall improvement of the purification yield can be a synergistic effect of these dosages.

MicroCat®-ANL

MicroCat®-ANL is recommended for odour control in a variety of applications where volatile fatty acids and sulphides are primary causes of odour. Volatile fatty acids are produced by the decomposition of fats, proteins and carbohydrates under oxygen deficient conditions. Hydrogen sulphide (H_2S) is produced by sulphate reducing bacteria under anoxic/anaerobic conditions. In many environments where odours are generated, there is an oxygen gradient with significant dissolved oxygen at the surface (positive Oxidation-Reduction Potential or ORP) grading to complete anaerobic conditions (negative ORP) at greater depth. Different microbial strains will grow at different depths according to their oxygen requirements. Because MicroCat®-ANL contains a mixture of microbes with different oxygen requirements, it will work in a quite diverse set of ORP conditions and applications.

MicroCat®-ANL Odour Control Bioformula is formulated with a proprietary consortium of microbes that break down volatile fatty acids and hydrogen sulphide in anaerobic and microaerophilic (low oxygen) environments. Some of the microbes in ANL can use light energy to photo assimilate carbon dioxide (CO_2) while oxidizing sulphides (HS^- & S^{2-}) to insoluble elemental sulphur (S^0) and other end products in the absence of oxygen. The sulphur which is created in this process precipitates in- or outside the bacterial cell. Other microbes can also convert volatile fatty acids and sulphides to non-odorous end-products in the dark using other metabolic pathways (both facultative and aerobic metabolism).

MicroCat®-ANL is applied at:

- ★ Industrial & Municipal Wastewater treatment plants
- ★ Sewage storage tanks
- ★ Sewer lines & Pumping Stations
- ★ Sludge dewatering & Sludge storage
- ★ Landfills & Composting

Which Industries use MicroCat®-ANL?

- ★ Water Companies
- ★ Food Industry
- ★ Chemical / Petrochemical industry
- ★ Oil Refineries
- ★ Pulp- & Paper Industry
- ★ Waste processing & composting Industry
- ★ Local Authorities

Advantages of MicroCat®-ANL use in Wastewater Treatment plants

- ★ Reduced odour in several sections of the treatment plant from sewage head works to sludge dewatering and storage
- ★ Increased degradation of Fats, Oils & Greases
- ★ Improved flocculation and sedimentation of sludge
- ★ Reduced aeration requirement
- ★ Reduced H_2S corrosion of metal and concrete parts
- ★ Process stabilization & reduced recovery times in the treatment plant after system overloads

Although MicroCat®-ANL application is focused on reducing odours, advantages in several other areas within the biological treatment plant can be obtained. Advantages that can realize savings which can partly or even completely pay for the odour control treatment with MicroCat®-ANL.

If your biological wastewater treatment plant experiences odour issues than do not hesitate to contact us for a free evaluation of your system by one of our representatives.

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