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Technical Information: SPC Eisenchelat BIO



Chemical name :	SPC Eisenchelat BIO
	Organic feed additive for sulfur reduction
content :	Complex-bound iron, phytochemicals
Areas of Application :	A New Method for Biogas Desulfurization, Remediying Iron Deficiency in Biology

General informations :

Many biogas plants today have a problem with sulfur and hydrogen sulfide in the biogas circuit. In addition to individual consulting, we also offer a desulfurization solution with SPC Iron Chelate BIO. An elevated hydrogen sulfide content in the biogas causes acidification of the engine oil and destroys the engine, pipelines, and the structural fabric of the biogas plant through corrosion. In addition, the hydrogen sulfide in the digester directly inhibits the microbiology as a cell toxin. SPC Iron Chelate BIO reduces sulfur already in the fermentation substrate and thus reliably prevents the formation of hydrogen sulfide. Iron is one of the most important trace elements for bacteria and is often limiting. The iron in SPC Iron Chelate BIO is 100% bioavailable to bacteria. In SPC Iron Chelate BIO, the iron is present as a complex compound. This means it can accept electrons and make them available to the methanizing bacteria (electron donor). This increases methane formation. Through this complex formation, SPC Iron Chelate BIO regenerates itself, which is why the application rate can be greatly reduced compared with conventional iron products.

Advantages

- Reduction of sulfur already in the fermentation substrate
- Reliable prevention of hydrogen sulfide formation
- 100% bioavailable to bacteria and therefore an important nutrient
- As an acceptor/donor complex, provides electrons for methanization
- Liquid, therefore easy to dose
- Significantly lower pollutant/heavy metal input than iron(III) hydroxide
- Completely water-soluble (no deposits at the bottom of the digester – no reduction in digester volume – no reduction in retention times)
- Non-corrosive, therefore gentle on materials (e.g. longer service life of agitators)
- No dust exposure (important for occupational safety)

Application :

100 ml SPC iron chelate BIO per 50 kW of electrical output (per day). Preferably add directly into the fermenter via the substrate. Alternatively, it can also be added via the pre-tank (requirement: continuous stirring must be maintained).

Hazard Informations :

SPC iron chelate BIO is based on food additives and plant-based active ingredients and is therefore not a hazardous substance within the meaning of the Hazardous Substances Ordinance.

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This data is only for your information purposes and does not imply a guarantee for a certain application.