Biogas Pretreatment

# Natural Iron Oxide for H2S Removal

**PROJECT INTRODUCTION**

Biogas must be purified as a previous stage to be used in cogeneration engines, boilers or network injection. One of the most problematic polluting agents, both for processes and equipment, is hydrogen sulphide (H2S).

**GOALS OF THE PROJECT**

PROMINDSA has developed a natural product to eliminate H2S inside biogas reactors. For this, our research team has relied on bibliographic documentation, a deep analysis of the mining deposit and a continuous study of the properties of the material. The resulting product is having a great impact on both the national and international markets, becoming a real alternative to the traditional desulphurizing agents.

**UTILIZATION**

MICRONOX BIOX ON16 fits perfectly into the values of ecology and circular economy because it is manufactured only by mechanical processes and 100% renewable energy. MICRONOX BIOX ON16 is packaged in closed bags, and its neutral pH and zero toxicity reduce the risk of workers, avoiding the handling of corrosive substances. Its high surface area and high affinity for hydrogen sulphide reduce the concentration of H2S from 2,000-10,000 ppm to 100-200 ppm.

The resulting product is an inert mixture of Fe2S3 and S (elemental), which becomes part of the digestate and can be applied as a fertilizer. In this way, the product life cycle is closed, beginning and ending on land, providing solutions to important environmental problems such as the emission of SO2 into the atmosphere or the intensive use of inorganic fertilizers.

**PROJECT DATA**

- Location: Zaragoza, Spain
- Start of operation: 2016

**UNIQUENESS OF THE PROJECT**

- New high performance and cost efficiency product for H2S removal.
- Natural origin, no toxic reactives involved in production.
- Currently used successfully in over 100 biogas plants in 15 countries, which guarantee its effectiveness and quality.

**For more information:**

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