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Technical Information: Iron hydroxide for desulfurization of fermenters

Chemical name :	Iron hydroxide for desulfurization of fermenters A mixture of iron hydroxide and calcium carbonate
CAS-No. :	Gemisch
General informations :	The article “Iron hydroxide for the desulfurization of fermenters” is chemically classified as an iron-containing desulfurization agent, usually based on iron(III) hydroxide or iron oxyhydroxide (FeOOH / FeO(OH)) or iron hydroxide-containing mixed phases. Such materials react with hydrogen sulfide and other sulfide compounds to form sparingly soluble iron sulfides and thus serve as reactive sulfur scavengers.

Application :

Typical applications
Desulfurization of fermenter or biogas streams –

forming iron sulfide and can thereby remove sulfur compounds from gas- or liquid-phase fermenter processes.

Gas cleaning in general –
Function: reactant / adsorbent. Iron hydroxide-containing masses are used to remove sulfur compounds from gas streams because they chemically react with acidic sulfur components.

Water or wastewater treatment –
Function: reactant / precipitation or adsorption agent. Iron hydroxide-containing materials can remove contaminants by binding or precipitation; patents describe their use in water treatment and flue gas cleaning.

Regenerable desulfurization media – Function: sorptive operating medium. After being loaded with sulfur, the material can be regenerated by oxidation, producing iron oxyhydroxide and elemental sulfur again.

Known alternatives
Iron oxides / iron oxide hydroxides in other formulations as sulfur binders or desulfurization media.
Metal oxide-based desulfurizers of other compositions, e.g. commercial sorbents for gas cleaning.
Alkaline scrubbing processes or other chemical gas-cleaning processes as functional alternatives, depending on the process setup.

Ecological alternative with many advantages:

SPC iron chelate
https://spc-selectedproducts.de/spc_pages/spc_SPC_Eisenchelat.html

Hazard Informations :

Iron hydroxide contains no hazardous raw materials and is therefore not a hazardous substance within the meaning of the Hazardous Substances Ordinance.

Nevertheless, we recommend observing general precautions and keeping the product out of the reach of children.

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