



Joint Press Release P217/20e

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BASF SE and ExxonMobil Introduce a New Gas Treating Technology Aimed at Helping Customers Lower Sulfur and Overall CO₂ emissions: OASE sulfexx

- Helps customers meet future regulatory requirements, lower operating costs and increase capacity
- Selectively removes hydrogen sulfide, while minimizing co-absorption of carbon dioxide from gas streams

LUDWIGSHAFEN, Germany and HOUSTON, Texas, USA – <u>BASF SE</u> and <u>ExxonMobil Catalysts and Licensing LLC</u> have released a new highly energy efficient amine gas treatment technology named OASE® sulfexx $^{\text{TM}}$. The technology is based on a new proprietary amine-based solvent that selectively removes hydrogen sulfide (H₂S), while minimizing the co-absorption of carbon dioxide (CO₂) from gas streams.

The companies jointly developed the amine-based solvent to help petroleum refiners and gas processors meet future requirements, while also increasing capacity and lowering operating costs on existing equipment. For new facilities, the use of this technology will reduce the size of the equipment and the initial capital investment compared to conventional amine gas treatment units.

"We are pleased to partner with BASF to develop OASE sulfexx, a compelling solution aimed at helping operators reduce emissions and lower costs," said Dan Moore, president of ExxonMobil Catalysts and Licensing, LLC. "Collaborating to develop new, game-changing technologies is central to how we work, and the development of this new product provides yet another example of what we bring to the marketplace."

"OASE sulfexx will help our customers to achieve their sustainability goals by lowering energy consumption and reducing sulfur emissions," said Andreas Northemann, vice president of BASF Gas Treatment. "The H_2S selectivity of OASE sulfexx is outstanding – it's hard to find a product on the market with that type of capability."

Multiple pilot plant tests at ExxonMobil and BASF facilities have demonstrated the superior selective properties of this solvent compared to methyldiethanolamine (MDEA) formulations and FLEXSORB™ SE and SE Plus solvents. A commercial demonstration concluded at a tail gas treating unit located in North America further confirms the results.

OASE sulfexx will help to debottleneck existing Claus tail gas treating, acid gas enrichment, and highpressure acid gas removal units. In Claus tail gas treating units, the technology can achieve less than 10 ppmv H₂S specifications while rejecting CO₂ to meet future emission requirements.

FLEXSORB SE and SE Plus are trademarks of ExxonMobil.

OASE is a registered trademark of BASF.

Sulfexx is a trademark of BASF.

About OASE

With nearly 50 years of experience, BASF offers its customers efficient gas treating solutions for a variety of applications such as natural gas, synthesis gas, and biogas. Worldwide, these solutions have been proven and demonstrated in about 500 reference plants. BASF markets its range of gas treating technologies, the corresponding solvents and complete technical services including the digital platform OASE connect under the brand OASE® – Gas Treating Excellence by BASF. For more information on BASF Gas Treating Excellence, visit www.oase.basf.com.

About BASF

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. More than 117,000 employees in the BASF Group work on contributing to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €59 billion in 2019. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at www.basf.com.

About FLEXSORB

ExxonMobil has offered its unique selective gas processing technology under the FLEXSORB brand since 1983, including the proprietary FLEXSORB™ SE and FLEXSORB SE Plus solvents. The technology has been demonstrated in over 120 commercial applications worldwide.

About ExxonMobil Catalysts and Licensing LLC

ExxonMobil's cutting-edge proprietary catalysts, gas treating solvents and advantaged process technologies help refineries, petrochemical manufacturers and gas processors increase capacity, lower costs, improve margins, reduce emissions and operate safe, reliable and efficient facilities. Ready for better results across your refining, gas and chemical needs? View our video