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Joint Press Release

ExxonMobil and BASF Corporation demonstrate new solvent to decrease sulfur emissions

HOUSTON, TX – ExxonMobil Catalysts and Licensing LLC and BASF Corporation are conducting a full scale commercial demonstration of a new gas treating solvent at Imperial Oil's Sarnia Refinery. The companies jointly developed the new amine-based solvent aimed at meeting stringent sulfur emissions standards with greater efficiency, further raising the bar for tail gas treating and acid gas removal processes.

The innovative technology improves the selective removal of hydrogen sulfide (H₂S) and minimizes the co-absorption of carbon dioxide (CO₂) from gas streams. The highly selective properties of the solvent allow refiners and gas processors to increase capacity and lower operating costs in existing equipment. For new treating facilities, the usage of the technology will reduce the size of the equipment and the initial capital investments.

When used in a tail gas treating unit in conjunction with a Claus sulfur recovery unit (SRU), the new technology has the capability to achieve greater than 99.99% overall sulfur recovery and very low emissions to cope with future requirements. Pilot plant testing has demonstrated superior performance characteristics over methyldiethanolamine (MDEA) formulations and even improvements over FLEXSORB™ SE/ SE Plus solvents.

“The new solvent technology will provide immediate benefits to ExxonMobil facilities and to our gas treating customers,” said Dan Moore, President of ExxonMobil Catalysts and Licensing LLC. “This commercial demonstration is to tangibly show the new level of

performance.”

“Thoroughly tested at BASF’s dedicated pilot plant in Ludwigshafen, Germany, the solvent showed improved H₂S selectivity and lower energy consumption than other selective solvents,” said Andreas Northemann, Vice President of BASF Gas Treatment.

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For more information on BASF Gas Treating Excellence, visit www.oase.basf.com.

Contact:

BASF Corporation: Leslie Thomson, Telephone: +1 346 252-4187,
leslie.thomson@basf.com

ExxonMobil Media: +1 832 625-4000

About ExxonMobil Catalysts and Licensing LLC

ExxonMobil’s cutting-edge proprietary catalysts, gas treating solvents and advantaged process technologies help refineries and 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](#)

About BASF

BASF Corporation, headquartered in Florham Park, New Jersey, is the North American affiliate of BASF SE, Ludwigshafen, Germany. BASF has more than 18,200 employees in North America, and had sales of \$17.9 billion in 2017. For more information about BASF’s North American operations, visit www.basf.com.

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. The more than 115,000 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 five segments: Chemicals, Performance Products, Functional Materials & Solutions, Agricultural Solutions and Oil & Gas. BASF generated sales of €64.5 billion in 2017. BASF shares are traded on the stock exchanges in Frankfurt (BAS), London (BFA) and Zurich (BAS). Further information at www.basf.com.