



Raising the bar for selective H_2S removal processes

OASE[®] sulfexx[™] solvent technology

Energy lives here[®]

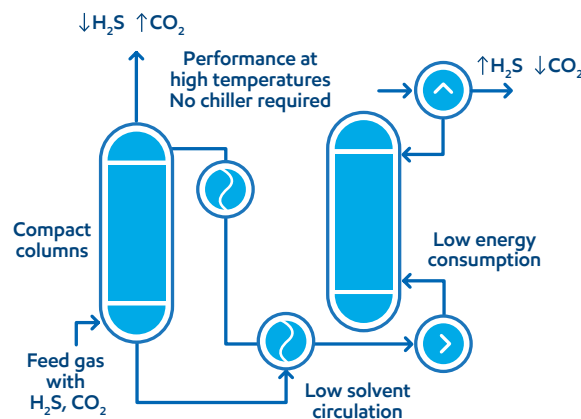
OASE sulfexx solvent is a highly energy efficient gas treating technology developed by ExxonMobil and BASF which helps refiners and gas processors to achieve sulfur removal targets.

Raising the bar for selective H_2S removal

OASE sulfexx solvent enables selective removal of hydrogen sulfide (H_2S) while minimizing the co-absorption of carbon dioxide (CO_2). The new solvent is based on a new proprietary amine that allows gas treatment units to achieve high absorption capacity with low energy consumption for regeneration. The result is lower operating costs, smaller equipment, and lower capital investments than conventional amine gas treatment units.

Best fits

- Natural gas to pipeline
- Natural gas to power
- Claus tail gas treatment
- Acid gas enrichment
- Enhances oil recovery
- Suitable for warmer climates



Key benefits



Improves environmental performance

- Improved selective removal of hydrogen sulfide
- Minimized co-absorption of carbon dioxide
- Can meet low sulfur emissions standards



Increases efficiency

- Lower capital investment
- Reduces size of equipment
- Reduced steam use
- Attain capacity increase with same equipment



Robust operations and technical support

- Suitable for use in hot arid climates
- Improves plant reliability
- Full technology package offered by BASF, including
 - Process modeling
 - Onsite assistance
 - Solvent analysis
 - Reliable global supply

Tested and proven

Suitable for both low and high pressure gas treatment, the solvent provides superior performance characteristics over MDEA (methyldiethanolamine) solvents in Claus tail gas treating, acid gas enrichment, and acid gas removal applications.

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. Commercially demonstrated to show superior performance characteristics over MDEA formulations and even improvements over FLEXSORB™ SE/SE PLUS solvents.

Benefits across applications

- H₂S selectivity over CO₂
- Increase capacity with existing equipment
- Reduction in energy consumption (via less steam generation) of up to 50%
- Reduction in circulation rate
- Debottleneck existing amine unit with no or minimum equipment changes
- Savings in cooling water and energy for chiller operation
- Lower amine losses due to high thermal and oxidation stability
- Robust operation, low maintenance
- Lower capital investment for grassroots facilities

About ExxonMobil

ExxonMobil helps refiners and petrochemical manufacturers increase capacity, lower costs, improve margins, reduce emissions and operate safe, reliable and efficient facilities. Along with a commitment to helping to implement best practices and to achieve better results, we provide cutting-edge proprietary catalysts and license advantaged process technologies for refining, gas and chemical needs.

About BASF

BASF Corporation, headquartered in Florham Park, New Jersey, is the North American affiliate of BASF SE, Ludwigshafen, Germany. BASF has more than 20,000 employees in North America and had sales of \$19.7 billion in 2018. For more information about BASF's North American operations, visit www.basf.com

OASE® sulfexx™ technology further raises the bar for gas treatment.

ExxonMobil

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