HySWEET®, the Best Option for Mercaptan Removal from Natural Gas

Typical Process Scheme

Key Benefits
- Low solvent cost
- Design tailored to meet any level of mercaptan removal
- Limited hydrocarbons coabsorption, no impact on Claus unit operation
- Corrosion, foaming and solvent degradation identical to amine plant
- Comprehensive absorption/desorption model integrated to a proprietary process simulator
- Lower energy consumption than amine processes for solvent regeneration - 10 to 15% saving
- Amine units may easily be swapped to HySWEET®
**HySWEET®**: Hybrid Solvent Process for Improved Mercaptan Removal from Natural Gas

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### Industrial Performances

![Graph showing mercaptans in treated gas, Steam/Sour Gas ratio variation, and HC + BTX in acid gas]

- **Mercaptans in treated gas**
- **Steam/Sour Gas ratio variation**
- **HC + BTX in acid gas**

Progressive solvent swap from amine to HySWEET® solvent on existing unit at Lacq (France) treating a natural gas containing 430 ppmv of mercaptans

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### The HySWEET® Solvent

- Addition of a selected physical solvent to an amine
- Maximizes absorption of mercaptans with limited coabsorption of hydrocarbons (typically < 1% HC in acid gas)
- Reduces reboiler energy compared to amine solvent (-10% to -15%)
- Over 6 years of successful operational experience on commercial plants

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### HySWEET® Gas Sweetening

**ACID GAS TO CLAUS UNIT**

**SOUR GAS** ➔ **HySWEET® Gas Sweetening (CO₂, H₂S, RSH removal)** ➔ **SWEET GAS**

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### Alternate option for deep mercaptan removal

**TO CLAUS UNIT**

**ACID GAS**

**SOUR GAS** ➔ **HySWEET® Gas Sweetening (CO₂, H₂S removal)** ➔ **HySWEET® Regen. Gas Sweetening (Optional)** ➔ **Molecular Sieves (Drying and RSH Polishing)** ➔ **SWEET GAS**

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**We Process Your Energy**

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