

Sulfur guard design

Sulfur guard applications

Sulfur guards may be utilised in various industrial locations and in gas or liquid phase applications. Johnson Matthey (JM) sulfur guard designs are tailored to meet specific operational goals. When evaluating a design, sulfur pick-up is a function of operating temperature, space velocity, and inlet sulfur speciation and concentration.

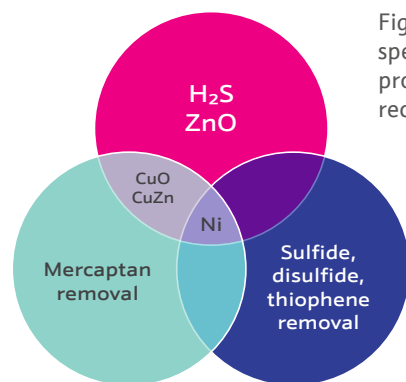


Figure 1: Inlet sulfur speciation will drive product selection recommendations.

Inlet sulfur speciation is key for determining product selection. **PURASPEC™** technology utilises fixed beds with mixed metal oxides in engineered granules to remove traces of contaminants from hydrocarbon gases and liquids. Most frequently hydrogen sulfide (H₂S) and mercaptans are removed.

JM supplies a portfolio of sulfur guard products that are designed to optimise mass transfer characteristics for applications across wide temperature and sulfur speciation ranges.

Our processes deliver a wide range of operating benefits:

- **Impurity removal:** Treated streams can be as low as ppbv levels.
- **High capacity:** **PURASPEC** absorbents are the industry choice for longest bed life and toughest duties. High capacity leads to less change-outs and longer lifespans, minimising the cost of sulfur removal over time.
- **Effective low and high temperature operation:** **PURASPEC** low temperature processes operate from ambient to 200°C (400°F).
- **Easy operation:** End of life discharge is free flowing under gravity.
- **Low pressure drop design:** Products designed for low pressure drop applications.

You can depend on **PURASPEC** performance to provide effective removal of sulfur compounds. This has already been proven for nearly 30 years, with hundreds of installations world-wide.