

Intellichem® HR: H₂S Removal Chemical Technology

The **Intellichem HR** chemical technology is a water-soluble multicomponent blend of complex actives and hydroxyls stabilized into a multi-alcohol solvent system. This product is extremely effective in removing H₂S from various gas and liquid streams such as:

- Natural gas
- Fuel gas
- Treated gas
- Vent gas and Off-gas
- Natural Gas Liquids (NGL)
- Hydrocarbon condensate
- Refinery intermediate
- Crude oil

Despite what the name infers, the technology is not a common scavenger in chemical terms. The proprietary formulation is more defined as a removal technology since it does not act by “scavenging” the H₂S molecule. It rather converts the H₂S irreversibly and quasi-instantaneously into a stable non-hazardous, water soluble sulfate salts (SO₄⁻²) and other related species. This eliminates the many issues and detrimental effects in the process system often associated with triazine-based and other scavengers that leave reaction products in the hydrocarbon phase. It is also more effective than caustic for mercaptans removal. The product is also effective in the removal of light mercaptans.

Intellichem HR is a non-corrosive liquid which is compatible with most production chemicals and materials. The chemical requires very little retention time as the reaction with H₂S is quasi-instantaneous, and most importantly, this reaction is irreversible and forming stable by-products.

Intellichem HR can be injected directly in locations where gas and liquid streams are present. The product can be also used for CO₂ and COS removal. Efficient mixing and contacting of the chemical with the fluid is vital for obtaining high removal yields.

The amount of product required to remove H₂S or from any stream is typically around 40% less than other scavengers. The reaction is instantaneous, stable and irreversible. All the resulting reaction products are non-toxic water-soluble salts that can be easily separated and effortlessly handled. The overall system has a much smaller equipment size and total footprints with lower costs and higher performance.

For additional information, please contact us at support@NexoSolutions.com

