

Formaldehyde Plays a Critical Role in Empowering American Energy

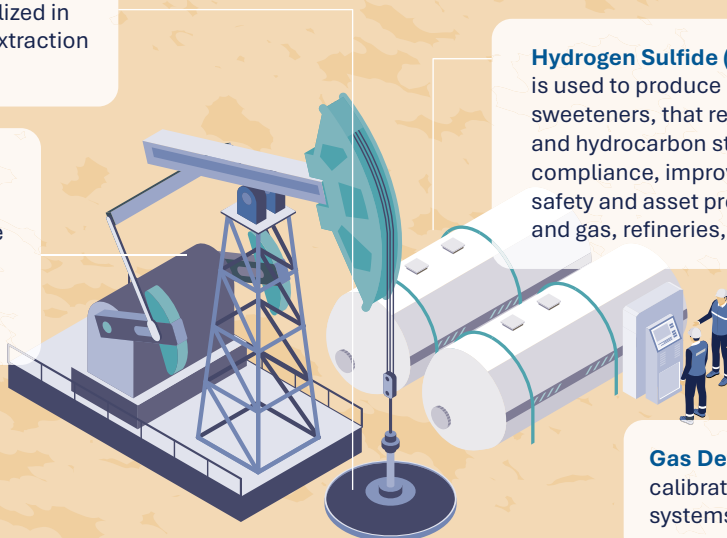


Formaldehyde serves various important functions in the oil and gas industry, supporting a wide range of activities from production and drilling to safety and waste management. These applications demonstrate formaldehyde's broad and critical role in improving the efficiency, safety, and functionality of oil and gas operations.

Enhanced Oil Recovery (EOR): Utilized in surfactant systems to improve oil extraction from mature or low-output wells.

Refining: Urea-formaldehyde concentrate and other formaldehyde-derived products are used in some specialized applications within refining and petrochemical processes.

Well Cementing: Formaldehyde-based compounds are used to enhance the strength and stability of cement used in sealing wells, preventing gas and fluid leaks.



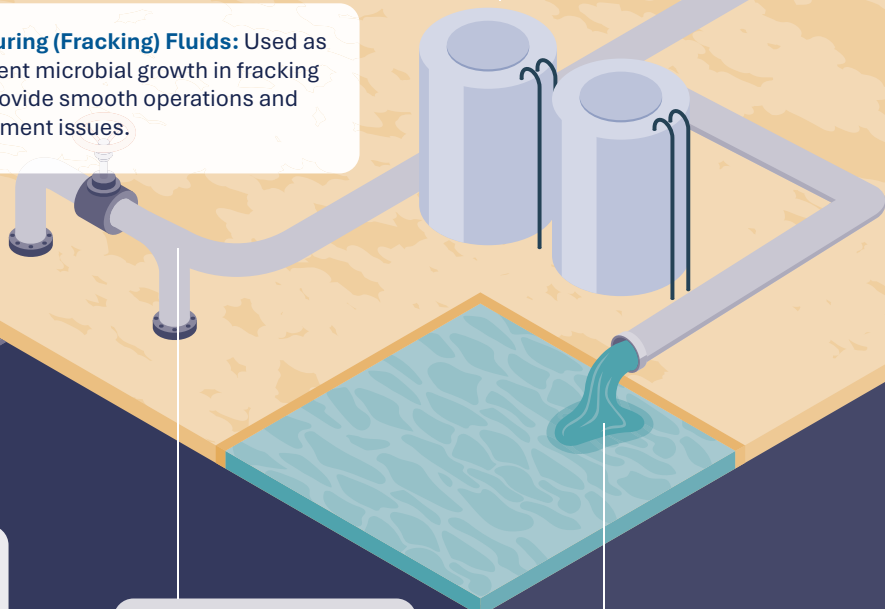
Hydrogen Sulfide (H₂S) Scavenging: Formaldehyde is used to produce H₂S scavengers, also called sweeteners, that remove toxic H₂S from natural gas and hydrocarbon streams, helping ensure pipeline compliance, improving air quality, and enhancing safety and asset protection across industries like oil and gas, refineries, and water treatment.

Gas Detection: Formaldehyde is used in calibrating and designing gas detection systems for mining and oil & gas.

Drilling Fluids: Formaldehyde-based resins and other formaldehyde-derived products are critical to drilling fluids, proppants, and proppant coatings, and mud additives used for improving drilling efficiency and well stability.

Biocidal Properties: Used to prevent microbial growth in oil field operations, including in wastewater and storage tanks, helping maintain equipment and prevent contamination.

Hydraulic Fracturing (Fracking) Fluids: Used as a biocide to prevent microbial growth in fracking fluids, helping provide smooth operations and preventing equipment issues.



Polymer and Resin Production: Involved in creating polymers and resins used for coatings, equipment, and specialized materials in the oil and gas industry.

Mining Reagents: Formaldehyde-based flotation collectors and depressants improve mining productivity and resolve metallurgical challenges, including in operations that involve lithium, rare earth elements, and phosphate ores.

Corrosion Inhibition: Formaldehyde-based compounds act as corrosion inhibitors to protect pipelines, equipment, and infrastructure from damage caused by chemicals and water exposure.

Wastewater Treatment: Used in treating oil field wastewater to reduce microbial contamination and facilitate safe disposal or reuse.

Formaldehyde Is Essential to the U.S. Economy and Energy Dominance



**234,000
Jobs**

Supported by use of formaldehyde and its derivatives in the oil and gas sector



**\$40B
Payroll**

Payroll generated by formaldehyde-related roles in oil and gas



**\$938B
Sales**

Manufacturing shipments and other economic input

EPA's TSCA Risk Evaluation for Formaldehyde

EPA's January 2025 final TSCA risk evaluation for formaldehyde includes a variety of energy-related uses as posing "unreasonable risk" potentially subject to future restrictions. These include use of formaldehyde and formaldehyde-derived products in: functional fluid in oil and gas drilling, extraction, and support activities, processing aides for petroleum production, chemical and plastic product manufacturing, petrochemical manufacturing, petroleum, lubricating oil and grease manufacturing; fuel and fuel additives, petroleum and coal products manufacturing; process aid in hydraulic fracturing; water treatment products; automotive articles and automotive care products; and laboratory chemicals.

[Unreasonable Risk Determination of the Risk Evaluation for Formaldehyde](#)

"A final TSCA risk evaluation, issued in the waning days of the Biden Administration, will have a catastrophic impact on critical American industries, driving companies out of business and inflating costs for housing, furniture, food, medical products, defense equipment, vehicles, and electronics.... Additionally, as formaldehyde is emitted from combustion, EPA's actions may also be a backdoor path for the Agency to ban oil, gas, and other fossil fuels as well as limit consumer choice in cars and trucks in the future." [Congressman Pete Sessions \(TX\), December 2024](#)

Additional Resources

[Applications of Formaldehyde in Mining, Quarrying, And Oil And Gas Extraction Industry - GAO Tek](#)

[Energy and Resources | Hexion](#)

[Triazine Hydrogen Sulfide Scavengers - Foremark Performance Chemicals](#)

[Hydrogen Sulfide Scavengers | Hexion](#)

