

OPTIMIZE MERCAPTAN OXIDATION PROCESSES WITH
ARI-100[®]



CATALYTIC REAGENTS FOR
MERCAPTAN OXIDATION
PROCESSES

Gas Technology Products

Merichem Chemicals &
Refinery Services LLC

ARI-100®

REDUCE YOUR CHEMICAL COST FOR YOUR MERCAPTAN

ARE YOUR CHEMICALS AS COST EFFECTIVE AS THEY SHOULD BE

Removing Mercaptans from jet fuel, gasoline, diesel fuel, and other petroleum fractions has been proven very effective with several different oxidation technologies, such as the Merichem Company MERICATSM and MERICATSM II processes. With these, and other similar processes, the operating and capital costs are 80% to 95% lower than hydrotreating costs. To assure process reliability and to minimize operating costs you need a catalyst which is specifically designed for mercaptan sweetening of petroleum fractions. You need the ARI family of catalytic reagents.

SUPPORT SERVICES KEEP YOUR PROCESS RUNNING COST EFFECTIVELY

As a part of the Merichem Family of Companies, Gas Technology Products continues to test and develop new and existing catalysts in our commitment to supply the most reliable, active and economical catalyst in the industry. Our catalyst manufacturing techniques, and guaranteed on-time deliveries, has allowed Merichem to specify our catalyst in their process designs.

GTP is also dedicated to assuring that every facility which uses and/or converts to the ARI family of catalysts has access to Merichem's professionally trained technical support personnel. With Merichem's process expertise and GTP's superior catalytic reagents we can optimize your mercaptan oxidation processes and can effectively reduce your operating costs.

CHOOSE THE CATALYTIC REAGENT THAT'S RIGHT FOR YOUR PROCESS

ARI chemicals achieve catalytic oxidation of a wide range of mercaptan compounds in petroleum fractions. To maximize removal efficiencies Gas Technology Products supplies a variety of catalysts designed for different mercaptans. Choose the catalytic reagent that's ideal for your process.

ARI-100L is a patented high quality catalytic reagent used in the extraction or conversion of lighter, easier to oxidize thiols. ARI-100L offers a higher activity and a more soluble reagent than offered by other competitive products.

ARI-100EXL is a more soluble form of the ARI-100L. ARI-100EXL is also used in the extraction or conversion of lighter, easier to oxidize thiols.

ARI-120L is a high quality catalytic reagent used to impregnate fixed bed reactors. ARI-120L is supplied as a powder and is used to convert hard to oxidize thiols.

The logo consists of the letters 'RSH' in a bold, blue, sans-serif font, centered within a white square. This square is enclosed in a thick black border. The entire logo is positioned on the left side of the page, against a yellow background with a subtle grid pattern.

RSH

ARI-100EXL CATALYST INJECTION/ADDITION SYSTEMS

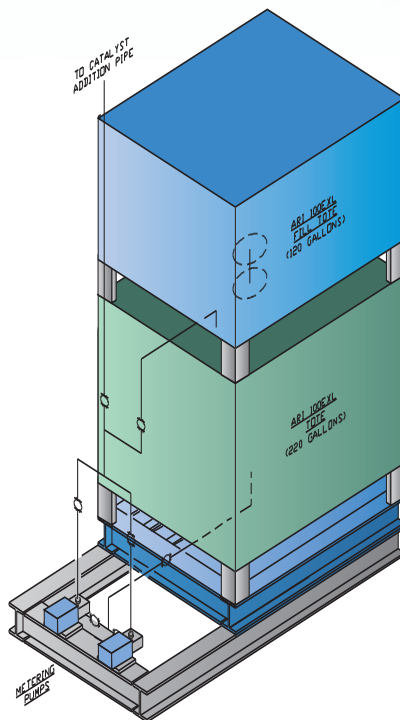
GTP's ARI-100EXL Addition System delivers the precise amount of catalyst more efficiently than manual methods, allowing your process to achieve optimum reaction kinetics.

It protects the environment and your operators. Built-in safeguards protect against environmental spills. Operator handling and exposure to chemical is limited.

There's a packaged system for every process:

- Containment Platform
- Standard Catalyst Addition Pipes
- Port-Feed Continuous Catalyst Injection System

Each packaged system includes all the necessary equipment and assemblies, as well as the ARI-100EXL catalytic reagent that's appropriate for your process.



Catalytic Sweetening Process	Feedstock	Catalyst	Note
Extraction	Gases light liquids	ARI-100EXL or ARI-100L	Reduces total sulfur
Liquid-liquid	Easily-oxidized thiols, e.g., virgin and light cracked gasoline	ARI-100EXL or ARI-100L	Total sulfur content unchanged
Fixed bed	Hard-to-oxidize thiols found in middle distillates such as kerosene, jet fuel, diesel, and heating oil	ARI-120L	Total sulfur content unchanged

Gas Technology Products have solid, liquid and regenerable catalyst systems to custom tailor sulfur removal solutions up to 30+ tons per day.



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