

Production Chemicals

H₂S scavenger product selection guide

Overview

Multi-Chem, a Halliburton Service, offers a comprehensive suite of H₂S scavenger products and extensive experience in treating H₂S and mercaptans in crude oils, fuel streams, asphalt, wastewater, and flare gas.

Our product line includes common and customizable scavenger solutions, as well as innovative technologies that provide unique benefits over traditional chemistries.

This includes cost-effective options with both nitrogen and non-nitrogen containing products.

At the core of our product selection and treatment program development is our engineering, data-driven approach. Our goal is to address your challenges by delivering the optimal solution, whether it involves a specialty chemical application, a process or mechanical change, or a combination of these.

Product selection guide

NON-NITROGEN	LINE DESCRIPTION	PRODUCT	WHAT SETS IT APART?	SOLUBILITY	CRUDE	INTERMEDIATES	RESID/ASPHALT	ROAD FUELS	CAT SLURRY/DECANT OIL	WASTEWATER	FLARE GAS	PROPANE	H ₂ S VAPOR. RATIO
	Polyhydric alcohol capable of catalytically removing mercaptans and H ₂ S, nearly instantaneously converting them to water soluble sulfate salt	RPA-880	Settling Velocity	Water	x	x			x	x			10:1
		RPA-881	Cost/Performance		x	x			x	x			5:1
		RPA-882	Contact Efficiency			x					x		3:1
	Metal carboxylate used in high temperature applications; reaction is instant on contact	RPA-895	Effectiveness	Oil			x						11:1
		RPA-893	Low Dosage Requirement						x				6:1
	Proprietary polyhydric ether; non-metal and non-nitrogen	RPA-853	Non-Metal Non-Nitrogen	Water	x	x						x	3:1
		RPA-851	Contact Efficiency			x						x	1:3
	Substituted alkylamine; approved road fuel additive	RPA-805	Effectiveness	Water		x		x	x				2:1
		RPA-820	Cost/Performance			x		x	x		x	x	1:1

Applications and recommended use

Crude Oil

- RPS-853 – Effectively and economically scavenges H₂S without adding undesirable amines to crude oil. See link below for a case history of a U.S. West Coast refinery, where application resulted in a significant return on investment.

Finished Fuel

- RPS-805 – Environmental Protection Agency approved road fuel additive. It is a water-based product that is optimized for cost efficiency.

Intermediates

- RPA-882 – Successfully used to achieve H₂S specification and mercaptan removal in gasoline. See link below for case history of a Louisiana plant. Hydrocarbons should be dried to remove 100 percent water-miscible chemical and reaction products.
- RPS-805 – Used at a U.S. Gulf Coast refinery to treat large volumes of gas oils that are transported on a barge for sale. See case history below for details.

Case studies

- [Effective H₂S management at Gulf Coast asphalt terminal](#)
- [Innovative H₂S scavenger solution ensures safe crude oil storage during refinery turnaround](#)

Wastewater

- RPA-880 – Effective and non-detrimental to biological systems.

Flare Gas/Propane

- RPA-880, 881, 882 – Treat H₂S in flare gas to comply with regulatory requirements and avoid unnecessary costs.
- RPS-805 – Treat propane to pass copper strip test. For these applications, injection location and the use of a quill are important.

Vacuum Resid/Asphalt

- RPS-895 – See link below for a case history presenting details of a U.S. Gulf Coast customer switching to Athlon's asphalt H₂S scavenger and reporting: cost savings, zero re-treats, and a lack of residue in tankage (compared to the previous treatment chemistry).

Benefits

- Improved compliance with health, safety and environmental regulations in your refinery or storage facilities
- An engineered approach to solve your problem, leading to targeted, site-specific technology development
- Anticipation and mitigation of common issues associated with H₂S scavenger management to improve reliability

For more information, contact your local Halliburton representative or visit us on the web at www.halliburton.com

Sales of Halliburton products and services will be in accord solely with the terms and conditions contained in the contract between Halliburton and the customer that is applicable to the sale.

H014000 12/24 © 2024 Halliburton. All Rights Reserved.

halliburton.com/specialty-chemicals

HALLIBURTON