



Dimethyl Disulfide (DMDS)

Adding sulfur compounds to feed is one of the conventional methods to overcome the effects of coke formation on cracking processes. In cracking process hydrogen sulfide, dimethyl sulfide, dimethyl disulfide, thiophene, dibenzyl sulfide, dibenzyl disulfide use for prevent coke formation. DMDS is one of the most conventional sulfide compounds that used in olefins and other cracking units for this purpose.

DMDS with the $C_2H_6S_2$ chemical formula is also known as methyl disulfide and is the simplest compound of disulfide.

The following table shows the most important specification of DMDS98:

TDS DMDS 99

Property	Unit	Typical Value	Test Method
Appearance	---	Light yellow	Visual
Purity	wt%	99 min	Chromatography
Water content	ppm	500 max	Chromatography
Density @15 °C	gr/ml	1.06	ASTM D4052
Molecular weight	gr/mol	94.2	---
Total sulfur	wt%	68 min	ASTM D4294
Methyl mercaptan	ppm	500 max	ASTM D2913
Dynamic Viscosity @20 °C	mPa.s	0.62	ASTM D7042
Color	APHA	120 max	ASTM D1209



Advantages of using DMDS:

Compared to other sulfiding agents, DMDS has the highest amount of sulfur, which reduces the amount of product required to convert oxides to activated metal sulfides. It has high thermal stability with low viscosity and is suitable for liquid or gas phase injection. At low temperatures it begins to decompose to H_2S , thus eliminating the dangers of reducing metal oxides prior to sulfidation. In addition, DMDS decomposes in two steps, minimizing the risk of temperature excursion during sulfidation.



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DMDS application

- Petrochemical industries
 - Coke inhibitor in olefin furnaces
 - Propane dehydration
- Refining industries
 - Sulfiding of hydrocracking catalysts
 - Hydrodesulphurization catalysts
 - Hydrotreating catalysts
- Increased thermal cracking speed
- Increased selectivity of hydrocarbons conversion
- Prevent formation of coke at the internal surface of reactor coils
- Agricultural industries



Packing

DMDS is available in following packings:

- ISO-tank containers (Net weight: 20,000 kg)
- IBC (Net weight: 1,000 kg)
- Steel Drum (Net weight: 200 kg)



Who we are

Rayeneh Group is an international supplier of chemicals, catalysts, and equipment in the Oil, Gas, Petrochemical, and Mine Industries. Since its establishment in 1999, Rayeneh has continuously strived to reach new markets while offering world class services. As of today, Rayeneh Group operate international offices in our territory with unique access to sources of high-quality chemicals, and is one of major players in the chemicals market. As dictated by our policy, "Serving Our Clients Beyond Their requirements" has always been at the forefront of our operations.

We are an exclusive broker for selling DMDS that is producing in an Iranian Petrochemical Company.

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