

Dimethyl Disulfide (DMDS)

Organic sulfur donor for refinery catalyst sulfiding and specialty chemical synthesis.

CAS No. 624-92-0	EC / List No. 210-871-0	Transport Class 3 — Flammable (subsidiary Class 6.1)
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Product Information

Dimethyl Disulfide, also called methyl disulfide, is an organic disulfide with molecular formula $C_2H_6S_2$ and molecular weight 94.20 g/mol. The molecule contains two sulfur atoms, providing a concentrated liquid sulfur source for professionally managed industrial processes. It has a strong characteristic odor, so odor control and closed handling are important in bulk use.

Specifications

Parameter	Specification
Appearance	Clear, colorless to pale yellow liquid
Purity	≥99.8 %
Sulfur	≥68.0 %
Water	≤0.05 %
Methyl mercaptan	≤0.01 %
Dimethyl polysulfide	<0.2 %

Supply limits follow the current legacy product specification. The local 2026 purity and water limits differ and are superseded here. The legacy density entry 1062–1065 has an unclear unit and is not used as an acceptance limit.

Typical Properties

Property	Typical Value
Molecular formula	$C_2H_6S_2$
Molecular weight	94.20 g/mol
Flash point, closed cup, manufacturer reference	15°C
Dynamic viscosity at 20°C, reference	0.62 mPa·s
Density at 25°C, reference	1.046 g/cm ³

Applications

Hydroprocessing catalyst sulfiding: Liquid sulfur source for catalyst activation in hydrotreating, hydrodesulfurization and hydrocracking units. Calculate sulfur addition from the required sulfur mass and use the approved catalyst and unit operating procedure.

Refinery sulfur-feed systems: Concentrated sulfur chemical for selected refinery sulfur-feed and catalyst-conditioning systems. Assess liquid compatibility, transfer controls, odor management and the full process operating envelope.

Specialty chemical synthesis: Organosulfur intermediate for selected agrochemical and fine-chemical synthesis. Match purity, water and mercaptan limits to the reaction, purification and final-product requirements.

Packaging / Storage

Item	Information
Packing	Drums / IBC / ISO tank
Storage	Store tightly closed in a dry, cool, well-ventilated flammable-liquid area. Keep away from heat, sparks, flames and incompatible oxidizing agents; restrict access to trained personnel.
Handling	Use closed transfer and effective local exhaust. Bond and ground conductive equipment and control ignition sources. Wear suitable chemical-resistant gloves, eye protection and antistatic protective clothing; avoid vapor exposure and splashes.

Company Contact

Supplier	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
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