



ACS Spectrophotometric Grade

The Appropriate Choice for Analytical Chemistry

Bulletin 144P

Oct 2007

DMSO ACS –Spectrophotometric Grade is Dimethyl Sulfoxide which conforms to the American Chemical Society's (ACS) 9th Edition Specifications for Reagent Chemicals. In addition to the normal parameters related to purity, this monograph specifies maximum UV absorbance at five wavelengths. This grade is the preferred solvent for any form of UV spectrophotometric analysis, due to its guaranteed analytical clarity.

Select DMSO ACS-Spectrophotometric Grade as:

HPLC Mobile Phase Component. The low UV limits of DMSO ACS-Spectrophotometric Grade result in minimal interference when using UV detectors in HPLC. The polarity of DMSO can be used to modify the solvent strength of HPLC eluent in reverse phase mode.

General Purpose Analysis Solvent. The nearly universal solvent properties of DMSO allow it to effectively dissolve difficult materials, including many polymers and inorganic materials. DMSO ACS-Spectrophotometric Grade is suitable for general UV and visible spectrophotometry, IR spectroscopy, and all methods that demand solvent purity and low levels of UV absorbance.

Solvent for High Throughput Screening and Compound Storage. The analytical clarity of this product, along with the ability to readily dissolve a wide range of compounds, make this grade ideal for HTS applications.

Gaylord Chemical Company, L.L.C. (GCC) is the world's leading provider of Dimethyl Sulfoxide (DMSO) solutions. Beginning in the early 1960's, GCC has been dedicated to the development of new uses for DMSO. In order to meet customer-specific needs, GCC has pioneered the development of multiple grades of DMSO, including DMSO USP.

Gaylord Chemical's solutions-based approach has contributed to the development and growth of industries including pharmaceuticals, hydrocarbons, electronics, polymers, coatings, agricultural chemicals, and industrial cleaners.

Gaylord Chemical's headquarters are located in Slidell, Louisiana with manufacturing, research, and development facilities in nearby Bogalusa, Louisiana. GCC remains the only producer of DMSO in the Western Hemisphere.

Gaylord Chemical Company, L.L.C.
Your Global Leader For DMSO Solutions!



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Representative Specification

Specification	Values
Assay, (% Min. by GLC)	99.9%
Titration Acid, (Max. meq / g)	0.001
Water (% Max.)	0.10
Evaporation Residue, (% Max.)	0.01
UV Absorbance Wavelength (Max.)	
350 - 400 nm	0.01
330 nm	0.02
310 nm	0.06
290 nm	0.18
270 nm	0.40

This illustration does not constitute the specification. Specifications are available upon request.

DMSO ACS –Spectrophotometric Grade at a Glance

Physical Data

Specific Gravity $d^{20/4}$	1.104
Boiling Point (atmos. pressure)	189°C
Viscosity at 20°C	2.14 cP
Refractive Index $n^{20/D}$ (20°C, 68°F)	1.4785
Surface Tension at (20°C, 68°F)	43 dynes / cm
Specific Heat at 25°C (77°F)	0.45 cal / g / °C
Heat of Vaporization (25°C)	162 cal / g
Electrical Conductivity (20°C)	3×10^{-8} / ohm / cm
Dielectric Constant (20°C)	48
Dipole Moment	4.3D
Vapor Pressure at 25°C (77°F)	0.6 mm Hg

Solubility

Soluble in water, light alcohols and diethyl ether.

Regulatory

CAS:67-68-5, EINECS:200-664-3

HMIS and NFPA Hazard Ratings: Health –1, Flammability –1,
Chemical Reactivity-0

Packaging

Bottles- 1/2, 1, 4 liter
Drums- 500lb HDPE

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