Specification Sheet

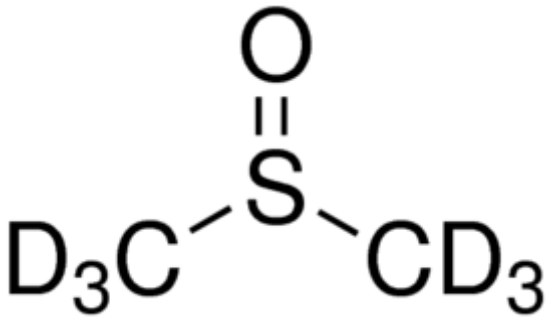
724335 Sigma-Aldrich

Dimethyl sulfoxide-d_6

contains 0.07 wt. % TSP-d_4, 99.9 atom % D, 99% (CP)

Synonym: **(Methyl sulfoxide)-d_6, DMSO-d_6, Hexadeuterodimethyl sulfoxide**

- **CAS Number** 2206-27-1
- **Linear Formula** $(CD_3)_2SO$
- **Molecular Weight** 84.17
- **Beilstein/REAXYS Number** 1237248
- **EC Number** 218-617-0
- **MDL number** MFCD00002090
- **PubChem Substance ID** 329764079



Note: This product can be packaged on demand. For information on pricing, availability and packaging of custom sizes, please contact Stable Isotopes Customer Service.

Properties

vapor pressure	**0.42 mmHg (20 °C)**
isotopic purity	**99.9 atom % D**
assay	**99% (CP)**
autoignition temp.	**573 °F**
contains	**0.07 wt. % TSP-d_4**
expl. lim.	**42 %**

refractive index	***n*20/D 1.476 (lit.)**
bp	**189 °C (lit.)**
mp	**20.2 °C (lit.)**
density	**1.190 g/mL at 25 °C (lit.)**
mass shift	**M+6**
SMILES string	**[2H]C([2H])([2H])S(=O)C([2H])([2H])[2H]**
InChI	**1S/C2H6OS/c1-4(2)3/h1-2H3/i1D3,2D3**
InChI key	**IAZDPXIOMUYVGZ-WFGJKAKNSA-N**

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Description

General description

Dimethyl sulfoxide-d_6 (DMSO-d_6) is a deuterated NMR solvent containing 0.07wt.% TSP-d_4 (3-(trimethylsilyl)propionic-2,2,3,3-d_4 acid sodium salt). It undergoes photodissociation to generate CD_3 radical photoproducts, which have been analyzed by infrared diode laserabsorption spectroscopy.[1] Dissociation dynamics of DMSO-d_6 at 193nm was examined using photo fragment translational spectroscopy method.[2]

Application

Dimethyl sulfoxide-d_6 may be used as NMR solvent for ^1H and ^{13}C NMR experiments.[2]

Packaging

This product may be available from bulk stock and can be packaged on demand. For information on pricing, availability and packaging, please contact Stable Isotopes Customer Service.