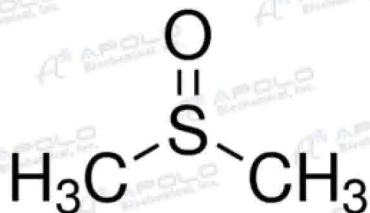


CERTIFICATE OF ANALYSIS

Product Name: DMSO, Dimethyl sulfoxide

Chemical Structure:



Lot Number: Chem0001969801

CAT Number: APL-0029

CAS Registry Number: 67-68-5

Manufacture Date: 19/02/2021

Expiry Date: 19/02/2024

Molecular Formula: C₂H₆OS

Molecular Weight: 78.13

Storage: RT

Analysis Data

Item	Standards	Results
Purity (G.C.)	≥ 99.9 %	99.9 %
Identity (IR)	Should comply	comply
Titrate acid	≤ 0.0002 meq/g	< 0.0002 meq/g
Density (d 20°C/20°C)	1.100 ~ 1.104	1.101
Refractive index (n ₂₀ /D)	1.478 ~ 1.480	1.479
Related substances USP (G.C.)	≤ 0.1 %	< 0.1 %
Relationship A285/A275	≤ 0.65	< 0.65
Relationship A295/A275	≤ 0.45	< 0.45
Class 1 of elemental impurities (ICH Q3D)	Passes test	Passes test
Class 2A of elemental impurities (ICH Q3D)	Passes test	Passes test
Class 2B of elemental impurities (ICH Q3D)	Passes test	Passes test
Class 3 of elemental impurities (ICH Q3D)	Passes test	Passes test
Freezing point	≥ 18.3°C	18.5°C
Related substances USP (G.C.)	≤ 0.1 %	< 0.1 %
Non-volatile matter	< 0.01 %	0.0005 %
Water (H ₂ O)	≤ 0.1 %	0.03 %

The foregoing is a copy of the Certificate of Analysis as provided by our supplier



Dr. L. Martin 23/06/2021
Quality Assurance Manager

Conclusion: The above product meets the specifications of APOLO