

## Certificate of Analysis

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**Product Name:** DMSO, sterile filtered

CAS Number: 67-68-5

IUPAC Name: Dimethyl sulfoxide

**Catalog No.:** 3176

**Batch No.:** 96

EC Number: 200-664-3

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>2</sub>H<sub>6</sub>OS

**Batch Molecular Weight:** 78.13

**Physical Appearance:** Colourless liquid

**Storage:** Store at RT

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**GC:** Shows 100.3% purity

**Endotoxin:** NMT 0.5 EU/mL

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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IUPAC Name: Dimethyl sulfoxide

**Description:**

DMSO, sterile filtered is a solvent with wide ranging applications in cell culture, cryopreservation and organic chemistry. DMSO dissolves both polar and nonpolar compounds. Improves responsiveness of human embryonic stem cells (ESCs) and induced pluripotent stem cells (iPSCs) to differentiation signals. DMSO is used in PCR to inhibit secondary structure formation by DNA template or primers. DMSO, Cell Cryopreserve Grade (Cat. No. 7726) also available.

**Physical and Chemical Properties:**Batch Molecular Formula: C<sub>2</sub>H<sub>6</sub>OS

Batch Molecular Weight: 78.13

Physical Appearance: Colourless liquid

**Minimum Purity:** ≥99.9%**Batch Molecular Structure:****Storage:** Store at RT

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

CAUTION - This product is hygroscopic and we recommend that it is desiccated once opened.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

Chetty *et al* (2013) A simple tool to improve pluripotent stem cell differentiation. *Nat.Methods* **10** 553. PMID: 23584186.

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