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## DATASHEET

DMSO (Sterile-filtered)

### Product overview

<b>Name</b>	DMSO (Sterile-filtered)
<b>Cat No</b>	HB3262
<b>Alternative names</b>	Methyl sulfoxide, Dimethyl Sulfoxide
<b>Purity</b>	>99.9%
<b>Description</b>	Widely used solvent. Improves direct differentiation of pluripotent stem cells and used as a stem cell cryoprotectant

### Biological Data

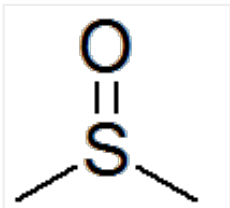
<b>Biological description</b>	<p>Organic solvent widely used for dissolving lipophilic substances.</p> <p>Commonly used as a cryotectant in cryopreservation of stem cells.</p> <p>DMSO activates the retinoblastoma (Rb) protein and increases the proportion of cells in the early G1 phase of the cell cycle.</p> <p>DMSO improves directed differentiation of many cell lines. DMSO increases the competency of pluripotent stem cells (in &gt;25 different embryonic and induced pluripotent stem cell lines) to respond to differentiation signals, enhance differentiation across all germ layers and improve terminal differentiation into functional derivatives</p> <p>Endotoxin &lt; 0.05 I.E(EU)/mL</p>
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### Solubility & Handling

<b>Storage instructions</b>	Room temperature (desiccate)
<b>Handling</b>	This compound is light sensitive. We therefore recommend protecting the compound and solutions from light.
<b>Important</b>	This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use.

### Chemical Data

<b>Chemical name</b>	Dimethyl sulfoxide
<b>Molecular Weight</b>	78.13
<b>Chemical structure</b>	



<b>Molecular Formula</b>	C <sub>2</sub> H <sub>6</sub> OS
<b>CAS Number</b>	67-68-5
<b>PubChem identifier</b>	679

<b>SMILES</b>	CS(=O)C
<b>InChi</b>	InChI=1S/C2H6OS/c1-4(2)3/h1-2H3
<b>InChiKey</b>	IAZDPXIOMUYVGZ-UHFFFAOYSA-N
<b>MDL number</b>	MFCD00002089
<b>Appearance</b>	colourless liquid

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## References

### **Cryopreservation of hematopoietic stem cells.**

Berz et al (2007) Am J Hematol 82(6):

**PubMedID** [17266054](#)

### **A simple tool to improve pluripotent stem cell differentiation.**

Chetty et al (2013) Nat Methods 10(6)

**PubMedID** [23584186](#)

### **A cost-effective system for differentiation of intestinal epithelium from human induced pluripotent stem cells.**

Ogaki et al (2015) Sci Rep 30

**PubMedID** [26616277](#)

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