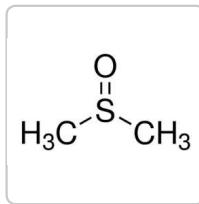


Saisir le nom du produit, le numéro de lot, etc.

**D8418 ▶ Sigma-Aldrich®**

Dimethyl sulfoxide

 4.5 (2)

for molecular biology

Toutes les photos (6)**Synonyme(s):**

Methyl Sulfoxide, Methylsulfinylmethane, Molecular Biology Grade DMSO, DMSO

Documents **FDS** **COO/COA** **Fiche des caractéristiques****Plus de documents »****Formule linéaire:**(CH3)2SO**Numéro CAS:****67-68-5****Poids moléculaire:**

78.13

Beilstein:

506008

Numéro EC:**200-664-3****Numéro MDL:****MFCD00002089****ID de substance PubChem:****24894214****NACRES:**

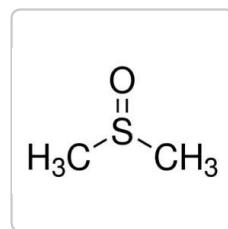
NA.52

Référence	Conditionnement	Disponibilité	Prix	Quantité
D8418-50ML	50 ML	 Disponible pour expédition le 07 octobre 2022 Détails...	61,50 €	– + 
D8418-100ML	100 ML	 Disponible pour expédition le 07 octobre 2022 Détails...	104,00 €	– + 
D8418-250ML	250 ML	 Disponible pour expédition le 07 octobre 2022 Détails...	178,00 €	– + 
D8418-500ML	500 ML	 Disponible pour expédition le 07 octobre 2022 Détails...	257,00 €	– + 

Référence	Conditionnement	Disponibilité	Prix	Quantité
D8418-1L	1 L	<input checked="" type="checkbox"/> Disponible pour expédition le 07 octobre 2022 Détails...	359,00 €	- + i

[Demander une commande en gros](#)[Ajouter au panier](#)

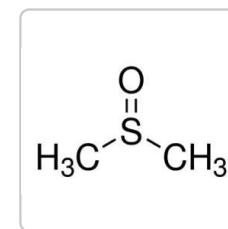
PRODUITS RECOMMANDÉS



Sigma-Aldrich

D2650**Dimethyl sulfoxide**

Hybri-Max™, sterile-filtered, BioReagent, suitable for hybridoma, ≥99.7%



Sigma-Aldrich

276855**Dimethyl sulfoxide**

anhydrous, ≥99.9%

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PROPRIÉTÉS

Qualité for molecular biology

Niveau de qualité 200

Densité de vapeur 2.7 (vs air)

Pression de vapeur	0.42 mmHg (20 °C)
Gamme de produits	BioReagent
Essai/Dosage	≥99.9%
Forme	liquid
Température d'inflammation spontanée	573 °F
Durée de conservation	Recommended retest period - 2 years
Expl. lim.	42 %, 63 °F
technique(s)	DNA sequencing: suitable PCR: suitable transfection: suitable
Impuretés	≤0.001 meq/g Titratable acid ≤0.1% water (Karl Fischer)
Couleur	colorless
Indice de réfraction	<i>n</i> 20/D 1.479 (lit.)
Point de bulle	189 °C (lit.)
Pf	16-19 °C (lit.)
Solubilité	H ₂ O: miscible (completely)

Densité	1.10 g/mL (lit.)
Absorption	passes test
Adéquation	suitable for molecular biology
Activité étrangère	DNase and RNase, none detected
Temp. de stockage	room temp
SMILES string	CS(C)=O
InChI	1S/C2H6OS/c1-4(2)3/h1-2H3
InChI key	IAZDPXIOMUYVGZ-UHFFFAOYSA-N

Vous recherchez des produits similaires ? Visit [Guide de comparaison des produits](#)

Catégories apparentées

[Solvents](#)

[Transfection](#)

DESCRIPTION

Description générale

Features and Benefits:

- Suitable for Molecular Applications
- Nuclease-Free DMSO
- DNase-Free, RNase-Free, Protease-Free, Phosphatase-Free
- Molecular Biology Grade DMSO

Dimethyl sulfoxide (DMSO) is a highly polar organic reagent that has exceptional solvent properties for organic and inorganic chemicals.

This product is designated as Molecular Biology grade and is suitable for molecular biology applications. It has been analyzed for the presence of nucleases and proteases.

Application

DMSO (dimethyl sulfoxide) is a highly polar, aprotic organic solvent with many applications in organic chemistry and molecular biology. DMSO is routinely used in

- polymerase chain reaction (PCR)
- amplification of cDNA libraries
- DNA sequencing
- column-loading buffers for poly(A)+ RNA selection
- buffers for the transformation of competent *E. coli*
- transfection protocols.

Dimethyl sulfoxide has been used-

- as an oligonucleotide solvent in array spotting[1]

- as a solvent during miRNA microarray analysis and quantitative real-time PCR (qRT-PCR)
- for cell lysis during MTT (3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide) assay
- for the preparation of the stock solution during MMP (mitochondrial membrane potential)cytofluorimetric assessment
- in the storage of human and animal cell lines and bacteriophage λ as a cryoprotective agent.

To prepare a sterile filtered DMSO solution, it is recommended to use a PTFE or nylon membrane. Cellulose acetate membranes are not recommended.

Conditionnement

50, 100, 250, 500 mL in glass bottle

1 L in glass bottle

Caractéristiques et avantages

This product is free from DNases, RNases, phosphatases and proteases.

Attention

Supercools easily and remelts slowly at room temperature. Solidified product can be re-liquified by warming to room temperature without detriment to the product.

PRODUITS APPARENTÉS

Gants Suggérés Pour Une Protection Contre Les Projections

19516

2-Propanol, BioReagent, for molecular biology, $\geq 99.5\%$

P4557

Phenol solution, Equilibrated with 10 mM Tris HCl, pH 8.0, 1 mM EDTA, BioReagent, for molecular biology

[View Pricing](#)**Z677566**

Lapren™ latex/chloroprene flock lined gloves, size L

[View Pricing](#)**Z677574**

Lapren™ latex/chloroprene flock lined gloves, size XL

[View Pricing](#)**Produit Apparenté****T7024**

N,N,N',N'-Tetramethylethylenediamine, BioReagent, for molecular biology, ≥99% (GC)

[View Pricing](#)**M1787**

Manganese(II) chloride solution, BioReagent, for molecular biology, storage temp.: room temp

[View Pricing](#)

N6639

Nitrotetrazolium Blue chloride, powder, electrophoresis grade

[View Pricing](#)**T4415**

Tris-Borate-EDTA buffer, BioReagent, suitable for electrophoresis, 10x concentrate

[View Pricing](#)**B4930**

Capillary Electrophoresis Running Buffer (10x), for automated DNA sequencing

[View Pricing](#)**Souvent Commandé Avec Ce Produit****890890P**

18:1 TAP (DOTAP), Avanti Polar Lipids 890890P, powder

[View Pricing](#)**610014**

Filter Support, Avanti Polar Lipids 610014

[View Pricing](#)

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage
10 - Combustible liquids

WGK
WGK 1

Flash Point(F)
188.6 °F - closed cup

Point d'éclair C
87 °C - closed cup

Équipement de protection individuelle

Eyeshields, Gloves, type ABEK (EN14387) respirator filter

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

[Comment saisir un numéro de lot \(COA\)](#)

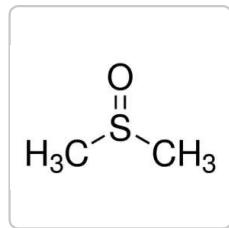
Rechercher

Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

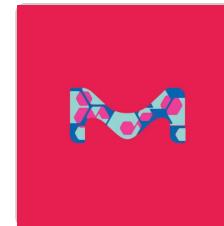
e.g. 023J5431

Comment saisir un numéro de lot (COO)**Rechercher****Fiche D'informations Produit****Product Information Sheet - D8418****Plus De Documents****FT-NMR Spectra****Pressure-Temperature Nomograph****Spectra - ATR-IR****Spectra for FT-IR Raman****Structure Search****FDS****LES CLIENTS ONT ÉGALEMENT CONSULTÉ**

Sigma-Aldrich

D5879

Dimethyl sulfoxide

ReagentPlus[®], ≥99.5%

Sigma-Aldrich

20-139

Dimethyl Sulfoxide (DMSO)



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QUESTIONS FRÉQUEMMENT POSÉES (FAQ)

How does the storage temperature relate to shipping conditions?

The storage conditions that a Sigma-Aldrich catalog and label recommend for products are deliberately conservative. For many products, long-term storage at low temperatures will increase the time during which they are expected to remain in specification and therefore are labeled accordingly. Where short-term storage, shipping time frame, or exposure to conditions other than those recommended for long-term storage will not affect product quality, Sigma-Aldrich will ship at ambient temperature. The products sensitive to short-term exposure to conditions other than their recommended long-term storage are shipped on wet or dry ice. Ambient temperature shipping helps to control shipping costs for our customers. At any time, our customers can request wet- or dry-ice shipment, but the special handling is at customer expense if our product history indicates that the product is stable for regular shipment. See [Shipping and Storage](#) for more information.

What is the molarity of DMSO?

DMSO will have a molarity of 14.1M, based on a density of 1.1 g/mL and a molecular weight of 78.13 g/mol.

What is the DMSO dissolved in?

DMSO is not dissolved in any solvent. It is a pure chemical compound that is a liquid at room temperature.

Where does DMSO come from?

DMSO is known to have been isolated from tree bark in the past. It is now a commercially synthesized solvent.

Does DMSO have any synthetic utility?

DMSO has been used to oxidize thiols and disulfides to sulfonic acids, hydrolysis of epoxides, thioalkylation of phenols, and oxidation of primary alcohols and halides, and esters of primary alcohols to aldehydes.

Which document(s) contains shelf-life or expiration date information for a given product?

If available for a given product, the recommended re-test date or the expiration date can be found on the Certificate of Analysis.

Dimethyl sulfoxide (DMSO) should be a liquid. Why did it arrive as a solid?

DMSO supercools easily, and re-melts slowly at room temperature. The melting point is 16-19 °C. The solidified product can be re-liquefied by warming to room temperature without detriment to the product.

How do I get lot-specific information or a Certificate of Analysis?

The lot specific COA document can be found by entering the lot number above under the "Documents" section.

How do I find price and availability?

There are several ways to find pricing and availability for our products. Once you log onto our website, you will find the price and availability displayed on the product detail page. You can contact any of our Customer Sales and Service offices to receive a quote. USA customers: 1-800-325-3010 or view [local office numbers](#).

Is Dimethyl sulfoxide a sterile product?

No, this product is not considered sterile. Product Nos. D2560 and D2438 are sterile-filtered.

What is the Department of Transportation shipping information for this product?

Transportation information can be found in Section 14 of the product's (M)SDS. To access the shipping information for this material, use the link on the product detail page for the product.

What can I use to solubilize Product D8418, Dimethyl sulfoxide?

This product is miscible in water (1 mL DMSO + 1 mL H₂O), yielding a clear, colorless solution. DMSO is a very hygroscopic liquid and should be protected from exposure to moisture. DMSO is also miscible with ethanol, acetone, ether, benzene, and chloroform.

Is Product D8418, Dimethyl sulfoxide, stable under extreme conditions?

DMSO is stable up to 100 °C in alkaline, acidic and neutral conditions. At temperatures approaching its boiling point, DMSO is stable in neutral or alkaline conditions.

Is Product D8418, Dimethyl sulfoxide, assayed for DNase, RNase and protease?

Yes. It is a molecular biology grade product, and it is tested for DNase, RNase and protease. For a lot to pass none of those enzymes may be detected.

Why is Product D8418, Dimethyl sulfoxide, considered as an exceptional organic solvent?

Dimethyl sulfoxide (DMSO) is a highly polar organic reagent that has exceptional solvent properties for organic and inorganic chemicals.

With what materials is Product D8418, Dimethyl sulfoxide, compatible?

The compatibility of DMSO with various materials is listed here: Compatible: LDPE, HDPE, polypropylene, PPCO (polypropylene copolymer), polymethylpentene, nylon, PTFE (Teflon) and FEP. Moderately compatible: polystyrene, ECTFE/ETFE. Incompatible: polysulfone, flexible and rigid PVC tubing, polycarbonate.

DMSO, Product D8418 Dimethyl sulfoxide, is used to freeze and store human and animal cell lines. Is there a procedure for it?

The procedure to freeze cells is in the product information sheet (under Documents, above).

I received Product D8418, Dimethyl sulfoxide, as a frozen solid. But isn't it supposed to be in the liquid state?

DMSO super cools easily and remelts slowly at room temperature. The product may arrive as a solid instead of a liquid. The solidified product can be reliquified by warming to room temperature without detriment to the product.

My question is not addressed here, how can I contact Technical Service for assistance?

Ask a Scientist [here](#).

ARTICLES REVUS PAR DES PAIRS

[Increased CYFIP1 dosage alters cellular and dendritic morphology and dysregulates mTOR.](#)

A Oguro-Ando et al.

Molecular psychiatry, 20(9), 1069-1078 (2014-10-15)

Rare maternally inherited duplications at 15q11-13 are observed in ~1% of individuals with an autism spectrum disorder (ASD), making it among the most common causes of ASD. 15q11-13 comprises a complex region, and as this copy number variation encompasses many

[How much dystrophin is enough: the physiological consequences of different levels of dystrophin in the mdx mouse.](#)

Caroline Godfrey et al.

Human molecular genetics, 24(15), 4225-4237 (2015-05-03)

Splice modulation therapy has shown great clinical promise in Duchenne muscular dystrophy, resulting in the production of dystrophin protein. Despite this, the relationship between restoring dystrophin to established dystrophic muscle and its ability to induce clinically relevant changes in muscle

Dimethyl sulfoxide (DMSO): a review.

C F Brayton

The Cornell veterinarian, 76(1), 61-90 (1986-01-01)

Dimethyl sulfoxide (DMSO) is a very simple compound that has stimulated much controversy in the scientific and popular literature. Fig. 1 It is an aprotic solvent. Therapeutic and toxic agents that are not soluble in water are often soluble in

Chasing central nervous system plasticity: the brainstem's contribution to locomotor recovery in rats with spinal cord injury.

Björn Zörner et al.

Brain: a journal of neurology, 137(Pt 6), 1716-1732 (2014-04-17)

Anatomical plasticity such as fibre growth and the formation of new connections in the cortex and spinal cord is one known mechanism mediating functional recovery after damage to the central nervous system. Little is known about anatomical plasticity in the

Lead-free halide perovskite solar cells with high photocurrents realized through vacancy modulation.

Mulmudi Hemant Kumar et al.

Advanced materials (Deerfield Beach, Fla.), 26(41), 7122-7127 (2014-09-13)

Lead free perovskite solar cells based on a CsSnI₃ light absorber with a spectral response from 950 nm is demonstrated. The high photocurrents noted in the system are a consequence of SnF₂ addition which reduces defect concentrations and hence the

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PROTOCOLES ET ARTICLES SCIENTIFIQUES

Articles

Introduction to Yeast Transformation

Transformation is the process by which exogenous DNA is introduced into a cell, resulting in a heritable change or genetic modification. This was first reported in *Streptococcus pneumoniae* by Griffith in 1928. Transforming principle of DNA was demonstrated by Avery et al. in 1944.

Protocoles

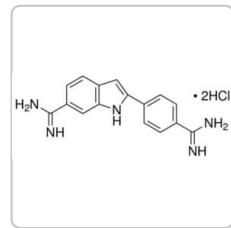
Yeast Transformation Protocols

Yeasts are considered model systems for eukaryotic studies as they exhibit fast growth and have dispersed cells.

Released N-Linked Glycan Analysis Workflow of Adalimumab

A step-by-step protocol for released N-linked glycan analysis of the monoclonal antibody adalimumab, based on UHPLC-FLR-MS and procainamide labeling.

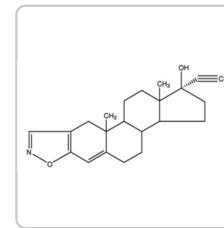
PRODUITS CONSULTÉS RÉCEMMENT



Sigma-Aldrich

D8417

4',6-Diamidino-2-phenylindole dihydrochloride
powder, BioReagent, suitable for cell culture, ≥98%
(HPLC and TLC), suitable for fluorescence



Sigma-Aldrich

D8399

Danazol
≥98%

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[Consulter le prix et la disponibilité](#)

Évaluations

[Rédiger une évaluation](#)