

SAFETY DATA SHEET

# DMSO, anhydrous

## SECTION 1: IDENTIFICATION

### 1.1. Product identifier

*Trade name:* DMSO, anhydrous  
*Product no.:* 20-0002-01  
*Other means of identification:* CAS No.: 67-68-5

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

*Relevant identified uses of the substance or mixture:* Laboratory use  
 Restricted to professional users.  
*Uses advised against :* None known.

### 1.3. Details of the supplier of the safety data sheet

*Company and address:* **Cavidi AB**  
 Virdings Allé 2  
 SE-754 50 Uppsala  
 Sweden  
 +46 707380729  
  
*Contact person:* Cavidi AB  
*E-mail:* support@cavidi.se  
*SDS date:* 11/17/2023  
*SDS Version:* 1.0

### 1.4. Emergency telephone number

Contact the poison control at 1-800-222-1222 (24/7) or use the webPOISONCONTROL® (triage.webpoisoncontrol.org) to get specific guidance for your case  
 See also section 4 "First aid measures".

## SECTION 2: HAZARD(S) IDENTIFICATION

### OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

### 2.1. Classification of the substance or mixture

Flam. Liq. 4; H227, Combustible liquid

### 2.2. Label elements

*Hazard pictogram(s):* Not applicable.  
*Signal word:* Warning  
*Hazard statement(s):* Combustible liquid (H227)  
*Precautionary statement(s):*  
*General:* -

<i>Prevention:</i>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210)
<i>Response:</i>	In case of fire: Use water mist/carbon dioxide/alcohol-resistant foam to extinguish. (P370+P378)
<i>Storage:</i>	-
<i>Disposal:</i>	-
<i>Additional labelling:</i>	Not applicable.

### 2.3. Other hazards

*Additional warnings:* This mixture/product does not contain any substances known to fulfil the criteria for PBT and vPvB classification.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substances

Product/substance	Identifiers	% w/w	Classification	Note
Dimethyl sulfoxide (DMSO)	CAS No.: 67-68-5	95-100%		

### 3.2. Mixtures

Not applicable. This product is a substance.

Where the concentration of an ingredient is expressed as a range the exact concentration has been withheld as a trade secret.

See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

### Other information

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## SECTION 4: FIRST-AID MEASURES

### 4.1. Description of first aid measures

<i>General information:</i>	If breathing is irregular, drowsiness, loss of consciousness or cramps: Call 911 and give immediate treatment (first aid). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.
<i>Inhalation:</i>	Upon breathing difficulties or irritation of the respiratory tract: Bring the person into fresh air and stay with him/her.
<i>Skin contact:</i>	Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.
<i>Eye contact:</i>	If in eyes: Flush eyes with water or saline water (20-30 °C)

*Ingestion:*

for at least 5 minutes. Remove contact lenses. Seek medical assistance and continue flushing during transport.

If the person is conscious, rinse the mouth with water and stay with the person. Never give the person anything to drink.

In case of malaise, seek medical advice immediately and bring the safety data sheet or label from the product. Do not induce vomiting, unless recommended by the doctor. Have the person lean forward with head down to avoid inhalation of or choking on vomited material.

*Burns:*

Not applicable.

**4.2. Most important symptoms and effects, both acute and delayed**

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

**4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**Information to medics**

Bring this safety data sheet or the label from this product.

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**SECTION 5: FIRE-FIGHTING MEASURES**

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**5.1. Extinguishing media**

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media: Waterjets should not be used, since they can spread the fire.

**5.2. Special hazards arising from the substance or mixture**

Combustible liquid

In use may form flammable/explosive vapour-air mixture.

Fire will result in dense smoke. Exposure to combustion products may harm your health. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous decomposition compounds are produced. These are:

Sulphur oxides

Carbon oxides (CO / CO<sub>2</sub>)

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact the Poison Help Line on 1-800-222-1222 (24/7) in order to obtain further advice.

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**SECTION 6: ACCIDENTAL RELEASE MEASURES**

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**6.1. Personal precautions, protective equipment and emergency procedures**

Contaminated areas may be slippery.

**6.2. Environmental precautions**

Avoid discharge to lakes, streams, sewers, etc.  
Keep unauthorized persons away from the spill

### 6.3. **Methods and material for containment and cleaning up**

Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Wherever possible cleaning should be performed with normal cleaning agents. Avoid use of solvents.

### 6.4. **Reference to other sections**

See section 13 "Disposal considerations" on handling of waste.

See section 8 "Exposure controls/personal protection" for protective measures.

## SECTION 7: HANDLING AND STORAGE

### 7.1. **Precautions for safe handling**

Avoid contact during pregnancy and while nursing.

Smoking, drinking and consumption of food is not allowed in the work area.

See section 8 "Exposure controls/personal protection" for information on personal protection.

### 7.2. **Conditions for safe storage, including any incompatibilities**

Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

*Recommended storage material:* Keep only in original packaging.

*Storage temperature:* Dry, cool and well ventilated

*Incompatible materials:* Strong acids  
Strong oxidizing agents

### 7.3. **Specific end use(s)**

This product should only be used for applications quoted in section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. **Control parameters**

No substances are listed with a permissible exposure limit (ref: 29 CFR 1910.1000 TABLE Z-1)

### 8.2. **Exposure controls**

Control is unnecessary if the product is used as intended.

*General recommendations:* Smoking, drinking and consumption of food is not allowed in the work area.

*Exposure scenarios:* There are no exposure scenarios implemented for this product.

*Exposure limits:* Occupational exposure limits have not been defined for the substances in this product.

*Appropriate technical measures:* Apply standard precautions during use of the product. Avoid inhalation of vapours.

*Hygiene measures:* In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

*Measures to avoid environmental* No specific requirements.

*exposure:*

## Individual protection measures, such as personal protective equipment


*Generally:*

Use only protective equipment with a recognized certification mark, e.g. the UL mark.


*Respiratory Equipment:*

No specific requirements


*Skin protection:*

Recommended	Type/Category	Standards	
Dedicated work clothing should be worn.	-	-	

*Hand protection:*

Material	Glove thickness (mm)	Breakthrough time (min.)	Standards	
Nitrile	0,2	> 480	EN374-2, EN374-3, EN388	

*Eye protection:*

Type	Standards	
Safety glasses with side shields.	EN166	

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

*Physical state:*

Liquid

*Colour:*

Clear

*Odour:*

Testing not relevant or not possible due to the nature of the product.

*Odour threshold (ppm):*

Testing not relevant or not possible due to the nature of the product.

*pH:*

6-8

*Density (g/cm<sup>3</sup>):*

Testing not relevant or not possible due to the nature of the product.

*Kinematic viscosity:*

Testing not relevant or not possible due to the nature of the product.

### Phase changes

*Melting point (°F):*

-

*Melting point (°C):*

18-19

*Softening point/range (waxes and pastes) (°F):*

Does not apply to liquids.

*Boiling point (°F):*

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<i>Boiling point (°C):</i>	188-190
<i>Vapour pressure:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Vapour density:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Decomposition temperature (°F):</i>	No data available

## Data on fire and explosion hazards

<i>Flash point (°F):</i>	-
<i>Flash point (°C):</i>	87-89
<i>Flammability (°F):</i>	No data available
<i>Auto-ignition temperature (°F):</i>	-
<i>Auto-ignition temperature (°C):</i>	214-216
<i>Explosion limits (% v/v):</i>	2.4 - 64

## Solubility

<i>Solubility in water:</i>	No data available
<i>n-octanol/water coefficient:</i>	Testing not relevant or not possible due to the nature of the product.
<i>Solubility in fat (g/L):</i>	Testing not relevant or not possible due to the nature of the product.

## 9.2. Other information

<i>Other physical and chemical parameters:</i>	No data available.
<i>Oxidizing properties:</i>	Testing not relevant or not possible due to the nature of the product.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No data available.

### 10.2. Chemical stability

The product is stable under the conditions, noted in section 7 "Handling and storage".

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

### 10.5. Incompatible materials

Strong acids  
Strong oxidizing agents

### 10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

## SECTION 11: TOXICOLOGICAL INFORMATION

## 11.1. Information on toxicological effects

### Acute toxicity

Based on available data, the classification criteria are not met.

### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

### Serious eye damage/irritation

Based on available data, the classification criteria are not met.

### Respiratory sensitisation

Based on available data, the classification criteria are not met.

### Skin sensitisation

Based on available data, the classification criteria are not met.

### Germ cell mutagenicity

Based on available data, the classification criteria are not met.

### Carcinogenicity

Based on available data, the classification criteria are not met.

### Reproductive toxicity

Based on available data, the classification criteria are not met.

### STOT-single exposure

Based on available data, the classification criteria are not met.

### STOT-repeated exposure

Based on available data, the classification criteria are not met.

### Aspiration hazard

Based on available data, the classification criteria are not met.

### Long term effects

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

### Other information

None known.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

No data available.

### 12.2. Persistence and degradability

No data available.

### 12.3. Bioaccumulative potential

No data available.

### 12.4. Mobility in soil

No data available.

### 12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances known to fulfil the criteria for PBT and



Conforms to OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200 / revised 2012)

vPvB classification.

**12.6. Other adverse effects**

None known.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**RCRA Hazardous waste ("P" and "U" list) (40 CFR 261)**

None of the components are listed

**Specific labelling**

**Contaminated packing**

Packaging containing residues of the product must be disposed of similarly to the product.

**SECTION 14: TRANSPORT INFORMATION**

	14.1 UN / ID	14.2 UN proper shipping name	14.3 Hazard class(es)	14.4 PG*	14.5 Env**	Other information:
DOT	-	-	-	-	-	-
IMDG	-	-	-	-	-	-
IATA	-	-	-	-	-	-

\* Packing group

\*\* Environmental hazards

**Additional information**

Not dangerous goods according to DOT, IATA and IMDG.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**

No data available.

**SECTION 15: REGULATORY INFORMATION**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.2. U.S. Federal regulations**

<i>TSCA (the non-confidential portion):</i>	Dimethyl sulfoxide (DMSO) is listed
<i>Clean Air Act:</i>	None of the components are listed
<i>EPCRA Section 302:</i>	None of the components are listed
<i>EPCRA Section 304:</i>	None of the components are listed
<i>EPCRA section 313:</i>	None of the components are listed
<i>CERCLA:</i>	None of the components are listed

**State regulations**

<i>California / Prop. 65:</i>	None of the components are listed
<i>Massachusetts / Right To Know Act:</i>	None of the components are listed



<i>New Jersey / Right To Know Act:</i>	Dimethyl sulfoxide (DMSO) / Substance number: 4145 Dimethyl sulfoxide (DMSO) is on the Special Health Hazard Substance List
<i>New York / Right To Know Act:</i>	—
<i>Pennsylvania / Right To Know Act:</i>	None of the components are listed

#### 15.4. Restrictions for application

Restricted to professional users.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

#### 15.5. Demands for specific education

No specific requirements.

#### 15.6. Additional information

Not applicable.

#### 15.7. Chemical safety assessment

No

#### 15.8. Sources

OSHA Hazard Communication Standard (29 CFR 1910.1200)

## SECTION 16: OTHER INFORMATION

### The full text of identified uses as mentioned in section 1

None known.

### Abbreviations and acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

ADN = European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road

ATE = Acute Toxicity Estimate

BCF = Bioconcentration Factor

CAS = Chemical Abstracts Service

CERCLA = Comprehensive Environmental Response Compensation and Liability Act

DOT = Department of Transportation

EINECS = European Inventory of Existing Commercial chemical Substances

EPCRA = Emergency Planning and Community Right-To-Know Act

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

HCIS = Hazardous Chemical Information System

HNOC = Hazards Not Otherwise Classified

IARC = International Agency for Research on Cancer

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)

NFPA = National Fire Protection Association

NIOSH = National Institute for Occupational Safety and Health

OECD = Organisation for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration  
PBT = Persistent, Bioaccumulative and Toxic  
RCRA = Resource Conservation and Recovery Act  
RID = The Regulations concerning the International Carriage of Dangerous Goods by Rail  
RRN = REACH Registration Number  
SARA = Superfund Amendments and Reauthorization Act  
SCL = A specific concentration limit.  
STEL = Short-term exposure limits  
STOT-RE = Specific Target Organ Toxicity - Repeated Exposure  
STOT-SE = Specific Target Organ Toxicity - Single Exposure  
TSCA = The Toxic Substances Control Act  
TWA = Time weighted average  
UN = United Nations  
UVBC = Unknown or variable composition, complex reaction products or of biological materials  
VOC = Volatile Organic Compound  
vPvB = Very Persistent and Very Bioaccumulative

**Additional information**

Not applicable.

**The safety data sheet is validated by**

Johanna Magnusson

**Other**

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

It is recommended to hand over this safety data sheet to the actual user of the product.

Information in this safety data sheet cannot be used as a product specification.

Country-language: US-en