Safety data sheet

DMSO (Dimethyl Sulfoxide), Sterile

Product name DMSO (Dimethyl Sulfoxide), Sterile	Catalog no. DMSO50, DMSO100, DMSO505, DMSO1005
Synonyms -	SDS revision 23 August 2021
CAS no. 67-68-5	Format version / date 1.0 / 24 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	DMSO (Dimethyl Sulfoxide), Sterile
Product code	DMSO50, DMSO100, DMSO505, DMSO1005
CAS number	67-68-5
EC number	200-664-3
Recommended use	For research use only.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. İpekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10 Yakutiye Erzurum Türkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
Emergency telephone	0090 544 327 34 97
Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	Flammable liquids, Category 4 (H227): Combustible liquid. NFPA (0-4): Health 0, Fire 2, Reactivity 0. HMIS (0-4): Health 0, Fire 2, Reactivity 0.
Label elements	The substance is classified and labelled according to GHS.
Symbols / pictograms	None
Signal word	Warning
Hazard statements	H227: Combustible liquid.
Precautionary statements - Prevention	P210: Keep away from flames and hot surfaces. No smoking. P280: Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary statements - Response	P370+P378: In case of fire: Use CO2, powder or water spray for extinction.
Precautionary statements - Storage	P403+P235: Store in a well-ventilated place. Keep cool.
Precautionary statements - Disposal	P501: Dispose of contents/container according to local, regional, national and international regulations.
Other hazards	None known.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	DMSO (Dimethyl Sulfoxide), Sterile
Synonyms	-
Concentration	≥99%
Formula	$(CH_3)_2SO$
Molecular weight	78.14 g/mol
Substance information	Dimethyl sulfoxide; sterile.

04 FIRST AID MEASURES

4.1 Description of first aid measures

General advice	Immediately remove clothing soiled by product.
Inhalation	Supply fresh air; consult a doctor if complaints occur.
Ingestion	Rinse mouth. Give water (maximum two drinking glasses). Consult doctor if symptoms persist. Sodium sulfate laxative: 1 tablespoon per 1/4 L water.
Skin contact	Rinse immediately with water. Consult a doctor if irritation persists.
Eye contact	Rinse open eye under running water for several minutes; then consult a doctor.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	CO2, extinguishing powder or water spray; use water spray or alcohol-resistant foam for larger fires.
Special hazards arising from the substance or mixture	Fire may release carbon monoxide, carbon dioxide and sulfur oxides (SOx). Beware of backfiring.
Advice for firefighters	Wear self-contained respiratory protective equipment.
Further information	Dispose of fire debris and contaminated firefighting water according to official regulations. Contain escaping vapours with water.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Evacuate personnel to safe areas. Ensure ventilation. Use personal protective equipment. Avoid inhaling vapours, mist or gas. See Section 8.
Environmental precautions	Do not allow entry into sewers, surface water or groundwater.
Methods and materials for containment and cleaning up	Absorb with liquid-binding material such as sand, diatomite, acid binders, universal binders or sawdust; clean affected area.
Reference to other sections	See Section 13 for disposal.

07 HANDLING AND STORAGE

Precautions for safe handling	Ensure good interior ventilation, especially near floor level (vapours are heavier than air).
Conditions for safe storage	Keep tightly closed and protect from light. Recommended storage: room temperature.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Long-term value: 250 ppm.

8.2 Exposure controls

Engineering measures	Ensure adequate ventilation, especially in confined areas.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. When using, do not eat, drink or smoke. Wash hands, forearms and face after handling.
Eye / face protection	Wear safety glasses with side-shields conforming to European Standard EN166.
Hand protection	Select impermeable, product-resistant gloves based on penetration time, diffusion rate and degradation.
Skin and body protection	Wear laboratory coat or impervious clothing. Choose protection appropriate for the amount and concentration at the workplace.
Respiratory protection	Wear suitable respiratory equipment in case of inadequate ventilation.

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Liquid
Odor	Sulphurous
Odor threshold	No data available
pH	No data available
Melting point / freezing point	18.5 °C (65.3 °F)
Initial boiling point and boiling range	189 °C (372.2 °F)
Flash point	87 °C (188.6 °F)
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper / lower flammability or explosive limits	No data available
Vapor pressure	0.556 hPa (0.4 mm Hg)
Vapor density	No data available
Relative density	No data available
Solubility(ies)	No data available
Partition coefficient: n-octanol / water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	>190 °C (>374 °F)
Viscosity	2.14 mPas
Explosive properties	No data available
Oxidizing properties	No data available

10 STABILITY AND REACTIVITY

Reactivity	Stable.
Chemical stability	Stable under recommended temperatures and pressures.
Possibility of hazardous reactions	No dangerous reactions known.
Conditions to avoid	Heat, sunlight and high temperature.
Incompatible materials	Alkali metals, strong oxidants and strong acids.
Hazardous decomposition products	No data available

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Dimethyl sulfoxide: LD50 oral (rat) 28,300 mg/kg; LD50 dermal (rat) 40,000 mg/kg; LD50 inhalation: -.
Skin corrosion / irritation	Slight irritation.
Serious eye damage / eye irritation	Slight irritation.
Carcinogenicity	Not listed by IARC, NTP or OSHA.
Reproductive toxicity	No data available
STOT - SE	No data available
STOT - RE	No data available
Aspiration hazard	No data available

11.2 Potential health effects

No harmful effects are expected when the product is used and handled as specified, based on available experience and information.

11.3 Additional information

No additional information is available.

12 ECOLOGICAL INFORMATION

Ecotoxicity	Dimethyl sulfoxide: EC50 algae 12,000-17,000 mg/L (72 h); EC50 Daphnia magna 24,600 mg/L (48 h); LC50 fish >25,000 mg/L (96 h).
Persistence and degradability	No data available
Bioaccumulative potential	No significant accumulation in organisms.
Mobility in soil	No data available
Results of PBT and vPvB assessment	No data available

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Contact a licensed professional waste disposal service for disposal in accordance with local requirements.
Contaminated packaging	Dispose of as unused product. Do not reuse empty containers.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
ADR/RID	-	Not dangerous goods	-	-	No
IMDG	-	Not dangerous goods	-	-	No
IATA	-	Not dangerous goods	-	-	No

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	No data available
Chemical Safety Assessment	No data available

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail