

SAFETY DATA SHEET

DIMETHYL SULFOXIDE (DMSO)

CAS No.: 67-68-5

This Safety Data Sheet is compiled from well-established published chemical, GHS classification and regulatory reference sources for this substance. It is supplied by Suraj Chemicals as the distributor/supplier of record and is not a manufacturer-issued document. Users should also consult the specific manufacturer's SDS where available.

1. IDENTIFICATION

Product Name	Dimethyl Sulfoxide (DMSO)
CAS Number	67-68-5
Recommended Use	Industrial / commercial chemical trading and distribution
Supplier	Suraj Chemicals, No 92, Govindappa Naicken Street, Shiva Complex, Chennai - 600001, India
Emergency Telephone	+91 - 9840284032, 9176135357 / +91 - 44 - 25393652

2. HAZARD(S) IDENTIFICATION

GHS Signal Word	Warning
HAZARD CLASSIFICATION • Serious eye irritation - Category 2B	
HAZARD STATEMENTS • H319 - Causes eye irritation	
PRECAUTIONARY STATEMENTS • P264 - Wash exposed skin thoroughly after handling • P280 - Wear protective gloves/eye protection/face protection • P305+P351+P338 - IF IN EYES: rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing • P337+P313 - If eye irritation persists: get medical advice/attention • P501 - Dispose of contents/container in accordance with local regulations	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Dimethyl Sulfoxide (DMSO)
CAS Number	67-68-5
Physical State	Liquid (solidifies near room temperature in cool conditions)
Appearance / Odour	Colorless, clear, hygroscopic liquid with a faint garlic-like/sulfurous odor.

4. FIRST-AID MEASURES

Eye Contact	Rinse cautiously with water for several minutes; remove contact lenses if present; continue rinsing and seek medical attention if irritation persists.
Skin Contact	Wash off with water; note that DMSO is rapidly and extensively absorbed through intact skin, which can carry co-contaminants into the body — thoroughly wash any contaminated skin promptly and remove contaminated clothing.
Inhalation	Remove to fresh air; seek medical attention if symptoms occur (low volatility limits typical inhalation exposure at room temperature).
Ingestion	Rinse mouth with water; give water to drink; low acute toxicity but seek medical advice if large amounts are ingested or discomfort occurs.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, carbon dioxide, alcohol-resistant foam, or water spray/fog.
Unsuitable Extinguishing Media	None specifically identified.
Special Hazards	Combustible liquid with a moderately high flash point; can react vigorously/exothermically with strong oxidizers and certain reactive chemicals; combustion or violent reaction may produce irritating sulfur oxide fumes; use full PPE for large fires or contamination-driven reactions.

6. ACCIDENTAL RELEASE MEASURES

Measures	Ventilate the area, contain the spill with inert absorbent, avoid skin contact given its strong skin-penetration properties, and collect for disposal; water-miscible material can be diluted with water in a controlled area.
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7. HANDLING AND STORAGE

Handling Precautions	Avoid skin contact, as DMSO rapidly penetrates skin and can carry dissolved substances (including hazardous ones) into the bloodstream; use impervious (not standard latex/nitrile, which DMSO can degrade) gloves rated for DMSO permeation, use with adequate ventilation, and keep away from strong oxidizers and reactive halogenated/nitro compounds which can react violently with DMSO.
Storage Conditions	Store in a cool, dry, well-ventilated place in tightly closed containers away from strong oxidizers, acid chlorides, and other reactive/incompatible chemicals; hygroscopic — keep containers closed to prevent moisture pickup.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / PPE	No specific universally-established occupational exposure limit for DMSO itself (some internal company guidance values exist, commonly in a low ppm range); use DMSO-resistant gloves (e.g., specific laminate materials — many common glove polymers are rapidly permeated), chemical splash goggles, and general ventilation.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid (solidifies near room temperature in cool conditions)
Appearance / Odour	Colorless, clear, hygroscopic liquid with a faint garlic-like/sulfurous odor.
Boiling Point	~189 C
Melting Point	~18-19 C (solidifies near/at room temperature)
Flash Point	~85-89 C (closed cup)
Density / Specific Gravity	~1.10 g/cm3 at 20 C
Water Solubility	Miscible with water in all proportions
pH Value	~6.0-7.5 (aqueous solution, essentially neutral)

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions of storage and use; hygroscopic; can react exothermically, sometimes violently, with strong oxidizers, acid chlorides, and certain other reactive chemicals — this combination hazard is a well-documented and important safety consideration for DMSO.
Incompatible Materials	Strong oxidizing agents, acid halides/acid chlorides, strong acids, and certain metal halides and reactive halogenated compounds (can react violently/exothermically).
Hazardous Decomposition	Sulfur oxide fumes, carbon monoxide and carbon dioxide on combustion or violent decomposition/reaction.

11. TOXICOLOGICAL INFORMATION

Summary	Causes eye irritation; low acute oral and dermal toxicity in itself, but of particular practical safety significance because it rapidly and efficiently penetrates intact skin and can act as a carrier, enhancing the dermal absorption of other substances present on the skin at the same time; not classified as a carcinogen, mutagen or reproductive toxicant based on available data; widely used industrially and in research/pharmaceutical applications.
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12. ECOLOGICAL INFORMATION

Summary	Readily biodegradable with low bioaccumulation potential; not expected to be significantly hazardous to aquatic organisms at normal use/spill concentrations.
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13. DISPOSAL CONSIDERATIONS

Disposal Method	Dispose of in accordance with local regulations through a licensed waste management facility, or as combustible organic waste; avoid mixing with strong oxidizers or reactive halogenated waste.
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14. TRANSPORT INFORMATION

UN Number	Not regulated for transport
Transport Hazard Class	Not regulated
Packing Group	Not applicable

15. REGULATORY INFORMATION

Notes	Widely used industrial, pharmaceutical and research solvent; classified as an eye irritant under GHS, OSHA HCS and EU CLP; not regulated for transport as a dangerous good; its skin-penetration/carrier property is a well-recognized practical handling consideration beyond its formal hazard classification.
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16. OTHER INFORMATION

Prepared By	Suraj Chemicals, Technical / QA Desk
Date of Issue	29 Sep 2026
Note	This SDS is compiled from well-established published GHS hazard classification data and general chemical reference sources for this substance, in the standard 16-section format. Values are believed accurate but Suraj Chemicals makes no warranty, express or implied, regarding their completeness. Users should evaluate suitability for their own specific use.

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