



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

SAFETY DATA SHEET (SDS)

Di Methyl Formamide (DMF)

SDS

REV 3.1
29 JULY 2026
GHS REV.11 (2025)

CAS **68-12-2** EC **200-679-5** SIGNAL WORD **DANGER**

GHS02

Flammable Liquid

GHS06

Acute Toxicity

GHS07

Harmful / Irritant

GHS08

Health Hazard

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

Product Name	Di Methyl Formamide (DMF)
Product Type	Dimethylformamide — solvent / industrial chemical
Chemical Family	Amide (formamide derivative)
CAS No.	68-12-2
EC No.	200-679-5
Intended Use	Industrial solvent for resins, fibres, polymers, pharmaceuticals, and chemical synthesis
Restrictions on Use	Industrial / professional use only. Confirm suitability for final application before use.
Supplier	Supreme Petro Chemicals
Address	No. 145, 1st Floor, Raja Muthiah Road, Periyamet, Chennai – 600003, India
Emergency Contact	Sanketh — +91 86087 80096 · Sudarshan — +91 81979 47045
Email	admin@supremepetrochemicals.com
Product Page	https://www.supremepetrochemicals.com/products/di-methyl-formamide-dmf
SDS Revision	July 2026
SDS Version	3.1



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

SECTION 2 HAZARD IDENTIFICATION

Flam. Liq. 3; Acute Tox. 4 (dermal); Acute Tox. 3 (inhalation); Acute Tox. 4 (oral);
Skin Irrit. 2; Eye Irrit. 2; Carc. 1B; Repr. 1B; STOT RE 1

Signal Word

DANGER

GHS Pictograms

GHS02 (Flammable Liquid) | GHS06 (Acute Toxicity) | GHS07
(Harmful / Irritant) | GHS08 (Health Hazard)

HAZARD STATEMENTS

- H226 — Flammable liquid and vapour
- H312 — Harmful in contact with skin
- H315 — Causes skin irritation
- H319 — Causes serious eye irritation
- H331 — Toxic if inhaled
- H332 — Harmful if inhaled
- H350 — May cause cancer
- H360 — May damage fertility or the unborn child
- H372 — Causes damage to organs through prolonged or repeated exposure

PRECAUTIONARY — PREVENTION

- P233 — Keep container tightly closed.
- P240 — Ground/bond container and receiving equipment.
- P241 — Use explosion-proof electrical/ventilating/lighting equipment.
- P242 — Use only non-sparking tools.
- P243 — Take precautionary measures against static discharge.
- P260 — Do not breathe vapours or spray.
- P271 — Use only outdoors or in a well-ventilated area.
- P272 — Contaminated work clothing should not be allowed out of the workplace.
- P273 — Avoid release to the environment.
- P280 — Wear protective gloves / eye protection / face protection.

PRECAUTIONARY — RESPONSE / STORAGE / DISPOSAL



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

- P301+P310 — IF SWALLOWED: Immediately call a POISON CENTER or doctor.
- P303+P361+P353 — IF ON SKIN OR HAIR: Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 — IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P312 — Call a POISON CENTER or doctor if you feel unwell.
- P331 — Do NOT induce vomiting.
- P403+P235 — Store in a well-ventilated place. Keep cool.
- P405 — Store locked up.
- P501 — Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	EC NO.	% W/W	GHS CLASSIFICATION
Di Methyl Formamide (DMF)	68-12-2200-679-5		100	Flam. Liq. 3; Acute Tox. 4 (dermal); Acute Tox. 3 (inhalation); Acute Tox. 4 (oral); Skin Irrit. 2; Eye Irrit. 2; Carc. 1B; Repr. 1B; STOT RE 1

Full text of H-statements listed in Section 16.

SECTION 4 FIRST AID MEASURES

Inhalation	Remove person immediately to fresh air. Keep comfortable for breathing. If symptoms persist or breathing is difficult, seek medical attention. Apply artificial respiration if not breathing.
Skin Contact	Remove contaminated clothing immediately. Wash affected skin thoroughly with water and soap for at least 15 minutes. Seek medical attention if irritation or symptoms persist.
Eye Contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention.
Ingestion	Rinse mouth. Do not induce vomiting unless directed by medical personnel. Seek immediate medical advice. Call a POISON CENTER



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

	or doctor.
Note to Physician	Treat symptomatically based on exposure route and product hazards. DMF may be absorbed through skin; systemic effects (hepatotoxicity) are possible. Monitor liver function after significant exposure.

SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical powder, CO ₂ , foam, water spray / fog. Use media appropriate for surrounding fire.
Unsuitable Media	Direct high-pressure water jet — may spread burning liquid.
Specific Hazards	Flammable vapours may form explosive mixtures with air; vapours travel to ignition sources and flash back. Containers may rupture when heated. Combustion produces carbon oxides and toxic/irritating fumes including dimethylamine and nitrogen oxides.
Protective Equipment	Wear full protective clothing and self-contained breathing apparatus (SCBA). Use grounded/explosion-proof equipment.
Special Procedures	Evacuate non-essential personnel. Cool fire-exposed containers with water spray. Prevent contaminated fire-fighting run-off from entering drains and waterways.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate the area. Eliminate all ignition sources. Use PPE as specified in Section 8. Avoid breathing vapours — use respiratory protection. Keep upwind.
Environmental Precautions	Prevent entry into drains, sewers, soil and watercourses. Notify relevant authorities if release reaches water bodies.
Containment / Clean-up	Absorb with inert dry material (sand, earth, vermiculite). Collect into labelled, compatible, sealed containers for disposal through an approved waste contractor. Do not flush to drain.
Reference to Sections	See Section 8 for PPE, Section 13 for disposal, Section 15 for regulatory information.



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

SECTION 7 HANDLING AND STORAGE

Handling Precautions	Use adequate local exhaust ventilation. Avoid contact with skin, eyes, and clothing. Avoid inhaling vapours. Use explosion-proof equipment and grounding for static control. Keep containers tightly closed when not in use.
Hygiene	Wash hands thoroughly after handling. Remove and wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.
Storage Conditions	Store in original, tightly closed compatible containers (steel drum, HDPE). Inspect containers regularly for leakage or damage. Keep away from heat, sparks, open flames, and hot surfaces.
Storage Temperature	Ambient (below 30°C recommended); keep cool and away from direct sunlight.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides), concentrated acids, halogens, aluminium chloride at elevated temperatures.
Segregation	Segregate from food, drink, animal feed and incompatible chemicals. Store locked up. Comply with local flammable-liquid storage regulations.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit	DMF (CAS 68-12-2): ACGIH TLV-TWA 10 ppm (skin notation); OSHA PEL 10 ppm TWA (skin); NIOSH REL 10 ppm TWA (skin). EU OEL: 5 ppm (15 mg/m ³) 8h TWA; STEL 15 ppm (45 mg/m ³). India: confirm current MSIHC / factory-rules OEL with competent authority. Use ALARA / good industrial hygiene where local limits are not established.
Engineering Controls	Use closed handling systems or local exhaust ventilation (LEV) to maintain airborne concentrations below OEL. Use explosion-proof ventilation and grounding for flammable vapours.
Respiratory Protection	If LEV is inadequate, use a NIOSH/EN-approved air-purifying respirator with organic vapour cartridge. Use supplied-air respirator or SCBA for high-concentration or emergency exposures.
Hand / Eye / Skin	Gloves: chemical-resistant nitrile, butyl rubber or neoprene (verify breakthrough time for DMF). Eyes/Face: EN 166 / ANSI Z87.1 chemical



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

splash goggles; add face shield for splash risk. Body: chemical-resistant clothing/apron and safety footwear. Provide eyewash station and emergency shower accessible within 10 seconds of exposure point.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless to pale-yellow liquid
Odour	Faint, fishy, amine-like odour
Odour Threshold	Not established in reviewed public source
pH	Not applicable (pure liquid; non-aqueous)
Melting / Freezing Point	-61°C / -78°F (NTP, 1992)
Boiling Point / Range	153°C / 307°F at 760 mmHg (NTP, 1992; lit. range 149–156°C)
Flash Point	58°C / 136°F (closed cup, ASTM D56)
Auto-ignition Temperature	445°C / 833°F (USCG, 1999)
Flammability Limits	LEL 2.2 vol% — UEL 15.2 vol% (in air; verify with supplier SDS)
Vapour Pressure	3.7 mmHg at 25°C (77°F); 2.7 mmHg at 20°C (68°F) — NTP, 1992
Vapour Density (air = 1)	2.51 (NTP, 1992) — heavier than air; will sink
Relative Density	0.95 at 20°C (68°F) (USCG, 1999) — less dense than water; will float
Solubility in Water	Miscible in all proportions at ambient temperature
Log Pow (Partition Coeff.)	-1.01 (lit. range -1.01 to -0.87) — hydrophilic; low bioaccumulation potential
Evaporation Rate	See supplier SDS for grade-specific value
Viscosity	0.802 cP at 25°C (0.85 mm ² /s at 25°C)
VOC Content	Assess per applicable regional VOC regulations; DMF is a VOC under most frameworks

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage and handling conditions.
Conditions to Avoid	Heat, open flames, ignition sources, direct sunlight, moisture ingress, contamination.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides). Avoid contact with concentrated acids and halogens. Reactive with aluminium chloride (AlCl ₃) under elevated temperature — not a concern in ambient blending or storage.



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

Hazardous Decomposition	Carbon oxides (CO, CO ₂), dimethylamine, formaldehyde, nitrogen oxides — may be formed in fire or thermal decomposition.
Hazardous Reactions	No hazardous self-reaction under normal storage conditions when stored and handled correctly.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	Rat LD ₅₀ ≈ 2,800 mg/kg (lit.); classified Acute Tox. 4 (oral). Confirm with supplier/test data.
Acute Dermal Toxicity	Rat LD ₅₀ ≈ 1,500 mg/kg (lit.); classified Acute Tox. 4 (dermal). DMF is readily absorbed through skin — skin absorption is a primary exposure route.
Acute Inhalation Toxicity	Rat LC ₅₀ ≈ 4,750 ppm/4h (lit.); classified Acute Tox. 3 (inhalation). Vapours are narcotic at high concentrations.
Skin Irritation	Causes skin irritation (Skin Irrit. 2 — H315). Repeated or prolonged contact may defat the skin.
Eye Irritation	Causes serious eye irritation (Eye Irrit. 2 — H319).
Sensitisation	Not classified as a skin or respiratory sensitizer based on available data. Confirm with supplier.
Carcinogenicity	Classified Carc. 1B (H350 — May cause cancer). IARC Group 2A (probably carcinogenic to humans). Handle accordingly.
Mutagenicity	No genotoxicity classification in Section 2 from reviewed data; endpoint confirmation with supplier recommended.
Reproductive Toxicity	Classified Repr. 1B (H360 — May damage fertility or the unborn child). Avoid exposure of pregnant workers or workers of reproductive age. Medical surveillance recommended.
STOT Repeated Exposure	Classified STOT RE 1 (H372 — Causes damage to organs through prolonged or repeated exposure). Primary target: liver (hepatotoxicity). Implement exposure controls and medical surveillance.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	No acute aquatic classification identified from reviewed data. DMF is highly water-miscible and mobile; avoid release to aquatic environments. Obtain supplier/ecotoxicity data if required for registration or export.
-------------------------	---



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

Persistence / Degradability	DMF is considered readily biodegradable in most aerobic conditions (BOD/COD ratio literature data). Confirm with supplier or ECHA REACH dossier.
Bioaccumulation	Low bioaccumulation potential: log Kow = -1.01 (below BCF trigger threshold). Unlikely to bioaccumulate significantly.
Mobility in Soil	High mobility — fully water-miscible, low soil adsorption potential (low Koc). Risk of groundwater contamination if released to soil. Prevent release.
Other Adverse Effects	Avoid uncontrolled release to the environment. Manage releases and waste under applicable local environmental regulations.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste from Product	Dispose of contents through an authorised waste contractor in accordance with local hazardous-waste regulations. Do not discharge to drain, sewer, or watercourse.
Contaminated Packaging	Empty containers may retain residues; handle as hazardous until cleaned or formally disposed. Return to supplier, recycle via approved scheme, or dispose through authorised contractor.
Indian Regulations	Classify and dispose as hazardous waste under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (amended). Follow applicable State Pollution Control Board (SPCB) requirements. Assign waste code per actual process and local regulation.

SECTION 14 TRANSPORT INFORMATION

PARAMETER	UN / ADR (ROAD)	IMDG (SEA)	IATA (AIR)
UN Number	UN 2265	UN 2265	UN 2265
Proper Shipping Name	N,N-DIMETHYLFORMAMIDE	N,N-DIMETHYLFORMAMIDE	N,N-Dimethylformamide
Class	3	3	3
Packing Group	III	III	III
Marine Pollutant	No	No	—
EmS / Special Provisions	—	F-E, S-D	—



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

UN-certified drum required for international transport. Drum must be labelled with Class 3 placard, UN 2265, PG III, and product name. Packing Group and proper shipping name — verify current carrier rules, ADR, IMDG Code and IATA DGR before each shipment.

SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP	Classified and labelled under EU CLP Regulation (EC) No. 1272/2008 as listed in Section 2. Observe REACH requirements (Registration, Evaluation, Authorisation and Restriction of Chemicals). DMF is on the SVHC candidate list (reproductive toxicant); check current REACH Annex XIV authorisation requirements before EU use/import.
OSHA (USA)	Prepared in OSHA HCS/HazCom-aligned 16-section SDS format. Verify TSCA inventory status before US import or distribution.
India	Observe applicable MSIHC Rules 1989, Factories Act, Environment Protection Act, Hazardous and Other Wastes Rules 2016, and CPCB/SPCB requirements. Register under applicable State industrial licensing if required.
Other Jurisdictions	Canada WHMIS 2015/HPR: classify and label per Section 2; bilingual SDS/label required for Canadian sale. Australia AICS: check inventory status before import/export. Middle East/GCC and China GB/T: apply GHS-aligned local requirements where marketed. Final market placement requires confirmation of local OELs, transport class, waste code and restrictions.

SECTION 16 OTHER INFORMATION

Prepared By	Supreme Petro Chemicals — Technical Department
SDS Standard	UN GHS Rev.11 (2025); OSHA HCS/HazCom; EU CLP/REACH Annex II; Canada WHMIS/HPR — 16-section format
Revision Date	24 June 2026
Version	3.0 (supersedes prior issues)
Disclaimer	Information is given in good faith and believed accurate at issue. It does not constitute a specification or guarantee; the user is responsible for safe use, handling and compliance.

FULL TEXT OF H-STATEMENTS

- H226 — Flammable liquid and vapour
- H312 — Harmful in contact with skin



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

-
- H315 — Causes skin irritation
-
- H319 — Causes serious eye irritation
-
- H331 — Toxic if inhaled
-
- H332 — Harmful if inhaled
-
- H350 — May cause cancer
-
- H360 — May damage fertility or the unborn child
-
- H372 — Causes damage to organs through prolonged or repeated exposure
-