

SAFETY DATA SHEET

N,N-DIMETHYL ACETAMIDE (DMAC)

CAS No.: 127-19-5

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	N,N-Dimethyl Acetamide (DMAC)
CAS Number	127-19-5
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	Danger
HAZARD CLASSIFICATION - Acute toxicity, dermal - Category 4 - Acute toxicity, inhalation - Category 4 - Eye irritation - Category 2 - Reproductive toxicity - Category 1B	
HAZARD STATEMENTS - H312 - Harmful in contact with skin - H319 - Causes serious eye irritation - H332 - Harmful if inhaled - H360D - May damage the unborn child	
PRECAUTIONARY STATEMENTS - P201 - Obtain special instructions before use - P260 - Do not breathe vapors/mist - P264 - Wash hands thoroughly after handling - P270 - Do not eat, drink or smoke when using this product - P280 - Wear protective gloves/eye protection/face protection - P308+P313 - If exposed or concerned: get medical advice/attention - P305+P351+P338 - If in eyes: rinse cautiously with water for several minutes, remove contact lenses if present - P405 - Store locked up	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	N,N-Dimethyl Acetamide (DMAC)
CAS Number	127-19-5
Physical State	Liquid
Appearance / Odour	Colorless liquid with a faint, amine-like odor.

4. FIRST-AID MEASURES

Eye Contact	Rinse immediately with plenty of water for at least 15 minutes, holding eyelids open; remove contact lenses if present. Get medical attention.
Skin Contact	Remove contaminated clothing and wash skin thoroughly with soap and water. Get medical attention if irritation persists; DMAC is readily absorbed through skin.
Inhalation	Remove to fresh air immediately. If breathing is difficult, give oxygen; if breathing has stopped, give artificial respiration. Get immediate medical attention.
Ingestion	Do not induce vomiting. Rinse mouth with water and give water to drink if conscious. Get immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Water spray/fog, dry chemical, carbon dioxide, alcohol-resistant foam.
Unsuitable Extinguishing Media	Do not use a solid/direct water stream, which may spread the material.
Special Hazards	Combustible liquid; vapors may form explosive mixtures with air at elevated temperature. Combustion produces toxic fumes including carbon monoxide, carbon dioxide, and nitrogen oxides.

6. ACCIDENTAL RELEASE MEASURES

Measures	Eliminate ignition sources and ventilate the area. Contain spill with inert absorbent material, avoid contact and runoff to drains/waterways, and collect waste in closed, labeled containers. Wear appropriate skin protection since DMAC is readily absorbed dermally.
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7. HANDLING AND STORAGE

Handling Precautions	Handle in a well-ventilated area or fume hood, avoiding all skin contact and inhalation of vapors; avoid alcohol consumption before/during exposure. Keep away from heat, open flame, and strong oxidizers.
Storage Conditions	Store in a cool, dry, well-ventilated area in tightly closed containers away from heat, ignition sources, strong oxidizers, and strong acids/bases.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / PPE OSHA PEL/ACGIH TWA 10 ppm (skin notation). Use chemical splash goggles, DMac-resistant gloves (e.g., butyl rubber), and NIOSH-approved organic vapor respirator in poorly ventilated areas.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance / Odour	Colorless liquid with a faint, amine-like odor.
Boiling Point	165.1
Melting Point	-20
Flash Point	70 (closed cup)
Density / Specific Gravity	0.937 g/cm3 at 20 C
Water Solubility	Miscible in all proportions
pH Value	Not applicable (neutral, non-ionizing organic solvent)

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions; can hydrolyze slowly with strong acids/bases and moisture at elevated temperature.
Incompatible Materials	Strong oxidizers, strong acids and bases, and halogenated compounds.
Hazardous Decomposition	Thermal decomposition/combustion can produce carbon monoxide, carbon dioxide, nitrogen oxides, and dimethylamine.

11. TOXICOLOGICAL INFORMATION

Summary	Classified as a Category 1B reproductive toxicant (may damage the unborn child) based on animal developmental toxicity data, closely mirroring DMF; also harmful by skin contact and inhalation, with potential hepatotoxic effects after significant exposure. Readily absorbed through intact skin, a major route of systemic exposure.
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12. ECOLOGICAL INFORMATION

Summary	Readily to inherently biodegradable with low to moderate acute aquatic toxicity; not typically classified as hazardous to the aquatic environment under standard GHS criteria.
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13. DISPOSAL CONSIDERATIONS

Disposal Method	Dispose of as hazardous waste (reproductive toxicant) in accordance with local, state, and federal regulations; incineration at a licensed facility with appropriate emission controls is the typical disposal method. Do not discharge to sewers.
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14. TRANSPORT INFORMATION

UN Number	NA1993 (US DOT, non-bulk); generally not restricted under IMDG/IATA due to flash point above 60 C
Transport Hazard Class	Combustible liquid, n.o.s. (US DOT); not regulated as Class 3 internationally
Packing Group	III (US DOT, non-bulk)

15. REGULATORY INFORMATION

Notes	Classified as a Category 1B reproductive toxicant in the EU (REACH Annex VI harmonized classification); listed on TSCA, REACH, and other global inventories. Subject to strict occupational exposure controls and reproductive-hazard labeling given its structural and toxicological similarity to DMF.
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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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