

SAFETY DATA SHEET

METHYL FORMATE

CAS No.: 107-31-3

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	Methyl Formate
CAS Number	107-31-3
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 - Flammable liquid - Category 1 - Compressed/liquefied gas under pressure at ambient conditions is not applicable — standard liquid classification - Acute toxicity, inhalation - Category 4 - Serious eye irritation - Category 2A	
HAZARD STATEMENTS - H224 - Extremely flammable liquid and vapour - H332 - Harmful if inhaled - H319 - Causes serious eye irritation	
PRECAUTIONARY STATEMENTS - P210 - Keep away from heat, sparks, open flames and hot surfaces; no smoking - 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 - P261 - Avoid breathing vapours - P271 - Use only outdoors or in a well-ventilated area - P280 - Wear protective gloves/eye protection/face protection - P304+P340 - IF INHALED: remove 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; continue rinsing - P403+P235 - Store in a well-ventilated place and keep cool	

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Methyl Formate
CAS Number	107-31-3
Physical State	Liquid
Appearance / Odour	Colorless liquid with a pleasant, ethereal 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; not expected to cause more than transient irritation.
Inhalation	Remove immediately to fresh air and keep at rest in a position comfortable for breathing; seek medical attention if symptoms occur.
Ingestion	Rinse mouth; do NOT induce vomiting; give water to drink if conscious; seek immediate medical attention.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Dry chemical, carbon dioxide, alcohol-resistant foam; water spray to cool exposed containers.
Unsuitable Extinguishing Media	Avoid a straight/high-pressure water stream, which can spread the fire.
Special Hazards	Extremely flammable, very low-boiling, low-flash-point liquid producing vapor that readily forms explosive mixtures with air over a wide range and may travel along the ground to an ignition source; closed containers may rupture from internal pressure buildup when heated; combustion produces carbon monoxide and carbon dioxide.

6. ACCIDENTAL RELEASE MEASURES

Measures	Eliminate all ignition sources, ventilate the area, contain the spill with inert absorbent, and collect for disposal using non-sparking, explosion-proof equipment; material readily evaporates.
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7. HANDLING AND STORAGE

Handling Precautions	Use only with adequate ventilation and explosion-proof equipment, keep away from heat/sparks/open flame and static discharge, use grounded/bonded equipment, and avoid inhalation and eye contact.
Storage Conditions	Store in a cool (preferably refrigerated below ambient), well-ventilated, flammables-rated area away from heat, light and oxidizers, in tightly closed, pressure-relief-equipped containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits / PPE	OSHA PEL / ACGIH TLV ~100 ppm TWA (150 ppm STEL); use chemical-resistant gloves (nitrile, Viton), chemical splash goggles, and a NIOSH-approved organic vapor respirator with explosion-proof local exhaust ventilation where vapor exceeds exposure limits.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance / Odour	Colorless liquid with a pleasant, ethereal odor.
Boiling Point	~32 C
Melting Point	~-100 C
Flash Point	~-19 C (closed cup)
Density / Specific Gravity	~0.98 g/cm ³ at 20 C
Water Solubility	~300 g/L at 20 C (moderately soluble; also hydrolyzes slowly in water)
pH Value	Not applicable (non-aqueous organic liquid; mildly acidic on hydrolysis to formic acid)

10. STABILITY AND REACTIVITY

Stability	Stable under normal, cool storage conditions; can slowly hydrolyze in the presence of water/moisture to methanol and formic acid.
Incompatible Materials	Strong oxidizing agents, strong acids and bases (accelerate hydrolysis).
Hazardous Decomposition	Carbon monoxide and carbon dioxide on combustion; methanol and formic acid on hydrolysis.

11. TOXICOLOGICAL INFORMATION

Summary	Harmful if inhaled, causing respiratory tract irritation and possible narcotic/CNS effects at high vapor concentrations; causes serious eye irritation; low acute oral toxicity; not classified as a carcinogen, mutagen or reproductive toxicant based on available data; historically noted for potential ocular effects at very high, prolonged vapor exposure in occupational settings.
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12. ECOLOGICAL INFORMATION

Summary	Readily biodegradable/hydrolyzable; 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 as hazardous waste (extremely flammable liquid) through a licensed waste management facility in accordance with local regulations; do not discharge to sewers.
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14. TRANSPORT INFORMATION

UN Number	UN1243
Transport Hazard Class	Class 3 (Flammable liquid)
Packing Group	I

15. REGULATORY INFORMATION

Notes	Used as a fumigant, blowing agent and industrial solvent/intermediate; classified as extremely flammable under GHS, OSHA HCS and EU CLP; regulated for transport under IMDG/ADR/IATA as UN1243 'Methyl formate', Class 3, Packing Group I.
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16. OTHER INFORMATION

Prepared By	Suraj Chemicals, Technical / QA Desk
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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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