



SUPREME PETRO CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
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SAFETY DATA SHEET (SDS)

Formic Acid *SDS*

REV 3.1

29 JULY 2026

GHS REV.11 (2025)

CAS 64-18-6

EC 200-579-1

SIGNAL WORD **DANGER**

GHS02

Flammable Liquid

GHS05

Corrosive

GHS06

Acute Toxicity

GHS07

Harmful / Irritant

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

Product Name	Formic Acid
Product Type	Industrial / solvent chemical
Chemical Family	Carboxylic Acid
CAS No.	64-18-6
EC No.	200-579-1
Intended Use	Industrial / professional use as described on the SPC product page.
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/formic-acid
SDS Revision	July 2026
SDS Version	3.1

SECTION 2 HAZARD IDENTIFICATION

Flam. Liq. 3; Met. Corr. 1; Acute Tox. 4 (oral); Skin Corr. 1; Eye Dam. 1; Acute Tox. 3 (inhalation); STOT RE 2

Signal Word **DANGER**



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GHS Pictograms

GHS02 (Flammable) | GHS05 (Corrosive) | GHS06 (Acute Toxicity) |
GHS07 (Harmful / Irritant)

HAZARD STATEMENTS

- H226 — Flammable liquid and vapour
- H290 — May be corrosive to metals
- H302 — Harmful if swallowed
- H314 — Causes severe skin burns and eye damage
- H318 — Causes serious eye damage
- H331 — Toxic if inhaled
- H332 — Harmful if inhaled
- H373 — May cause 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

- 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.



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- P331 — Do NOT induce vomiting.
- P312 — Call a POISON CENTER or doctor if you feel unwell.
- 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
Formic Acid	64-18-6	200-579-1	≥85 (typical industrial grade; confirm from supplier COA)	Flam. Liq. 3; Met. Corr. 1; Acute Tox. 4 (oral); Skin Corr. 1; Eye Dam. 1; Acute Tox. 3 (inhalation); STOT RE 2

Full text of H-statements listed in Section 16. EC No. 200-579-1 confirmed from ECHA for CAS 64-18-6. Concentration ≥85% reflects common industrial grades (85%, 90%, 94%, 99%); confirm exact grade with supplier Certificate of Analysis.

SECTION 4 FIRST AID MEASURES

Inhalation	Remove person immediately to fresh air. Keep at rest in a position comfortable for breathing. If breathing is difficult or stops, administer oxygen or artificial respiration. Seek immediate medical attention.
Skin Contact	Remove contaminated clothing immediately. Rinse affected skin thoroughly with large amounts of water for at least 15 minutes. Wash with soap and water. Seek medical attention if irritation, burns or symptoms persist. Do not reuse contaminated clothing until laundered.
Eye Contact	Rinse cautiously with water for at least 15 minutes. Remove contact lenses if present and easy to do; continue rinsing. Seek immediate medical attention — causes serious eye damage.
Ingestion	Rinse mouth immediately with water. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor. Give water to drink if conscious. Do not give anything by mouth to an unconscious person.
Note to Physician	Treat symptomatically based on exposure route and severity. Corrosive to mucous membranes, respiratory tract, skin and eyes. In



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severe inhalation cases, consider risk of pulmonary oedema. No specific antidote; supportive treatment.

SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Water spray, alcohol-resistant foam, CO ₂ , dry chemical powder. Use water spray to cool containers exposed to fire.
Unsuitable Media	Do not use a direct high-pressure water jet, which may spread the burning liquid.
Specific Hazards	Flammable liquid and vapour (Flam. Liq. 3). Vapours are heavier than air and may travel to distant ignition sources and flash back. Combustion produces carbon monoxide, carbon dioxide, and irritating or toxic fumes. Containers may rupture or explode when exposed to heat.
Protective Equipment	Wear full protective clothing and self-contained breathing apparatus (SCBA / EN 137 or NIOSH equivalent). Do not enter fire area without full protective equipment.
Special Procedures	Evacuate non-essential personnel. Use grounded / explosion-proof equipment. Prevent contaminated firewater run-off from entering drains, waterways or soil. Cool fire-exposed containers with water spray from a safe distance.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Evacuate non-essential personnel. Use appropriate PPE as specified in Section 8. Eliminate ignition sources; no open flames, no sparking equipment. Avoid breathing vapours. Provide adequate ventilation or wear approved respiratory protection.
Environmental Precautions	Prevent entry into drains, sewers, soil and watercourses. If the product enters a waterway or sewer, notify the relevant authorities immediately. Corrosive to metals — may damage infrastructure.
Containment / Clean-up	Contain spill by bunding or absorbing with inert, non-combustible absorbent (sand, earth, vermiculite). Do not use combustible absorbents. Collect into clearly labelled, compatible, closed containers for disposal through an approved waste contractor. Wash contaminated area thoroughly with water after collection.



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Reference to Sections	See Section 8 for PPE, Section 13 for disposal guidance and Section 15 for regulatory information.
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SECTION 7 HANDLING AND STORAGE

Handling Precautions	Use adequate local exhaust ventilation or work outdoors. Avoid contact with skin, eyes and clothing. Avoid breathing vapours. Use only non-sparking, explosion-proof equipment. Ground and bond containers to prevent static discharge during transfer. Do not use near open flames or ignition sources.
Hygiene	Wash hands and exposed skin thoroughly after handling. Remove and launder contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Provide eyewash stations and safety showers in the working area.
Storage Conditions	Store in original, tightly closed compatible containers (HDPE, stainless steel or glass; avoid carbon steel and copper alloys). Store in a cool, dry, well-ventilated area away from direct sunlight and heat sources. Keep away from ignition sources.
Storage Temperature	Below 30°C recommended. Note: product may solidify below melting point (8.4°C).
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides), strong bases, reactive metals (aluminium, zinc, magnesium), aluminium chloride at elevated temperature, halogens.
Segregation	Segregate from food, drink, animal feed, combustible materials, oxidising agents and incompatible chemicals.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit	Formic Acid (CAS 64-18-6): OSHA PEL 5 ppm (8h TWA); ACGIH TLV 5 ppm (8h TWA), STEL 10 ppm (15 min); NIOSH REL 5 ppm (8h TWA). India – consult latest MoLE / State Factories Inspector OEL schedule. Verify current regional limits before use.
Engineering Controls	Use closed handling systems, process enclosures or local exhaust ventilation (LEV) to maintain airborne concentrations below OELs. Use explosion-proof ventilation and grounding/bonding for flammable vapour control. Provide eyewash stations and safety showers accessible within the work area.



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Respiratory Protection

Where ventilation is inadequate, use a NIOSH/EN-approved respirator with acid gas / organic vapour cartridge (EN 14387 Type B or combined ABEK). For concentrations above IDLH or fire/spill emergency use, use SCBA (positive pressure, full face).

Hand / Eye / Skin

Hands: Chemical-resistant gloves — butyl rubber, neoprene or PVC; verify breakthrough time for grade and task. Eyes/Face: Chemical splash goggles (EN 166 / ANSI Z87.1); add full face shield for transfer or splash risk. Body: Chemical-resistant apron, lab coat or coverall; safety footwear; antistatic clothing where flammable vapours may occur.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless, fuming liquid
Odour	Pungent, penetrating (characteristic of formic acid)
Odour Threshold	Not established (verify from current NIOSH / AIHA source)
pH	Highly acidic; pH $\approx$ 1.9 for 0.1 M aqueous solution. Verify for concentrated grade from supplier COA.
Melting / Freezing Point	8.4°C (47.1°F) [re-mapped: source listed this value under 'Boiling Point'; correct assignment confirmed for CAS 64-18-6 — NTP 1992]
Boiling Point / Range	100.8°C (213.3°F) at 760 mmHg [re-mapped: source listed this value under 'Flash Point'; correct assignment confirmed for CAS 64-18-6 — NTP 1992]
Flash Point	69°C (156°F) closed cup [literature value for formic acid; not present under correct label in source — FLAG: verify from supplier SDS / COA]
Auto-ignition Temperature	$\approx$ 601°C (1114°F) [re-mapped: source listed this value under 'Vapour Pressure'; correct assignment confirmed for CAS 64-18-6 — USCG 1999]
Flammability Limits	LEL 18 vol% / UEL 57 vol% in air (literature; verify from supplier SDS)
Vapour Pressure	35 mmHg at 20°C (68°F); 200 mmHg at 61.4°C (142.5°F) [re-mapped: source listed these values under 'Relative Density'; correct assignment confirmed — NTP 1992]
Vapour Density (air = 1)	1.6 [re-mapped: source listed this value under 'Solubility in Water'; correct assignment confirmed — heavier than air, vapours will sink — NTP 1992]
Relative Density	1.22 g/cm ³ at 20°C [literature value; not clearly present under correct label in source — FLAG: confirm from supplier COA]



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Solubility in Water	Miscible in all proportions (≥ 100 mg/mL at 21°C) [re-mapped: source listed this value under 'Viscosity'; correct assignment confirmed — NTP 1992]
Log Pow (Partition Coeff.)	-0.54 [re-mapped: source listed this value under 'VOC Content'; correct assignment confirmed — PubChem experimental]
Evaporation Rate	Greater than 1 relative to n-butyl acetate (more volatile); verify grade-specific value from supplier SDS
Viscosity	1.607 mPa·s (cP) at 25°C; 1.5 mm ² /s kinematic [re-mapped from source continuation text]
VOC Content	Assess per applicable regional VOC regulations; formic acid is classified as a VOC under most definitions — declare per local rules

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage and handling conditions.
Conditions to Avoid	Heat, open flames, ignition sources, contamination with incompatible materials, direct sunlight. Avoid freezing (solidifies below 8.4°C) and storage above 30°C.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides); strong bases; reactive metals (aluminium, zinc, magnesium); aluminium chloride at elevated temperature; halogens and concentrated mineral acids.
Hazardous Decomposition	Carbon monoxide (CO) and carbon dioxide (CO ₂) on combustion or thermal decomposition. May also produce irritating or toxic fumes.
Hazardous Reactions	No hazardous polymerisation. May decompose slowly to CO and water above 160°C. Reactive with aluminium chloride at elevated temperature (not a concern under normal ambient storage).

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	Classified Acute Tox. 4 (oral) — H302: Harmful if swallowed. LD50 (rat, oral) $\approx$ 1100 mg/kg (literature; verify from supplier SDS / ECHA dossier).
Acute Dermal Toxicity	No specific dermal LD50 cited in reviewed public sources. Classified corrosive to skin (Skin Corr. 1, H314). Supplier/regulatory confirmation required.



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Acute Inhalation Toxicity	Classified Acute Tox. 3 (inhalation) — H331: Toxic if inhaled. LC50 (rat, 4h vapour) literature value available from ECHA dossier; verify from supplier SDS. Also classified H332: Harmful if inhaled.
Skin Irritation	Classified Skin Corr. 1 (H314) — Causes severe skin burns. Corrosive at industrial product concentrations.
Eye Irritation	Classified Eye Dam. 1 (H318) — Causes serious eye damage. Irreversible damage possible; immediate and prolonged rinsing required.
Sensitisation	Not classified as a skin or respiratory sensitiser based on available reviewed data. Verify from supplier toxicology report.
Carcinogenicity	Not classified as carcinogenic under current GHS / IARC / NTP criteria. Verify from current regulatory sources.
Mutagenicity	Not classified as a germ cell mutagen under current GHS criteria. Verify from supplier / ECHA dossier.
STOT — Repeated Exposure	Classified STOT RE 2 (H373) — May cause damage to organs through prolonged or repeated exposure. Target organ(s): verify from supplier SDS / ECHA dossier.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	No acute aquatic hazard classification (H400/H410/H411/H412) identified in Section 2 based on reviewed data. Formic acid is naturally occurring and readily biodegradable; however, acute spills may adversely affect aquatic pH. Avoid uncontrolled release to water.
Persistence / Degradability	Formic acid is readily biodegradable under aerobic conditions (OECD 301 criteria likely met). Verify from supplier ecotoxicology report or ECHA dossier for specific BOD/COD data.
Bioaccumulation	Log Pow = -0.54; not expected to bioaccumulate in aquatic organisms (BCF not significant).
Mobility in Soil	Highly water-soluble and mobile in soil; may leach to groundwater if released in significant quantities. Prevent spills from reaching soil and watercourses.
Other Adverse Effects	Avoid uncontrolled release to the environment. Manage releases and waste in compliance with applicable local environmental regulations.



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SECTION 13 DISPOSAL CONSIDERATIONS

Waste from Product	Dispose of contents through an authorised hazardous waste contractor in accordance with local and national regulations. Do not pour down drains or waterways. Do not dispose of by uncontrolled burning or incineration.
Contaminated Packaging	Empty containers may retain hazardous residues. Handle as hazardous waste until confirmed clean. Return to supplier or decontaminate before disposal. Do not reuse containers for food, feed or drinking water.
Indian Regulations	Comply with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 under the Environment (Protection) Act 1986. Obtain authorisation from the relevant State Pollution Control Board (SPCB) for disposal of hazardous chemical waste.

SECTION 14 TRANSPORT INFORMATION

PARAMETER	UN / ADR (ROAD)	IMDG (SEA)	IATA (AIR)
UN Number	UN 1779	UN 1779	UN 1779
Proper Shipping Name	FORMIC ACID	FORMIC ACID	FORMIC ACID
Class	8 (Corrosive)	8 (Corrosive)	8 (Corrosive)
Packing Group	II	II	II
Marine Pollutant	No	No	N/A

UN 1779 Formic Acid, Class 8, Packing Group II. Subsidiary risk: Class 3 (flammable liquid) applies for concentrations $\geq 85\%$; confirm subsidiary risk labelling with carrier. ADR tunnel restriction code: E. IMDG EmS: F-A, S-B. Use UN-certified, corrosion-resistant containers (HDPE, glass-lined or stainless steel). Label with Class 8 (Corrosive) placard. Verify current carrier tariff rules and IMDG/IATA amendment status before each shipment.

SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP	CAS 64-18-6 is registered under REACH. Classified and labelled per EU CLP Regulation (EC) No 1272/2008 as listed in Section 2. Comply with REACH Article 31 SDS requirements. Harmonised C&L in Annex VI of CLP applies where applicable.
OSHA (USA)	Prepared in OSHA HCS / HazCom 2012 (29 CFR 1910.1200) aligned 16-section SDS format. Formic acid is on the TSCA Chemical



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	Substance Inventory. Verify TSCA SNUR status before US import or distribution.
India	Comply with the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules 1989 (as amended); Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016; Environment (Protection) Act 1986; and applicable State Pollution Control Board requirements.
Canada WHMIS / HPR	Classify and label under WHMIS 2015 / Hazardous Products Regulations (HPR) using the Section 2 GHS classification. Canadian supply requires bilingual (English/French) SDS and label.
Other Jurisdictions	Comply with applicable GB/T SDS and classification requirements for China. Check AICC/AICS inventory status for Australia. Observe applicable GCC GHS-aligned requirements for the Middle East. Final market placement requires confirmation of local inventory status, OELs, transport classification, 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 including Rev 1.0 dated May 2026)
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 with all applicable laws and regulations.

FULL TEXT OF H-STATEMENTS

- H226 — Flammable liquid and vapour
- H290 — May be corrosive to metals
- H302 — Harmful if swallowed
- H314 — Causes severe skin burns and eye damage
- H318 — Causes serious eye damage
- H331 — Toxic if inhaled
- H332 — Harmful if inhaled



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- H373 — May cause damage to organs through prolonged or repeated exposure
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