**SUPREME PETRO CHEMICALS**

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS · SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road, Periyamet, Chennai – 600003, India
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SAFETY DATA SHEET (SDS)

# Fumaric Acid (Food Grade, FCC) *SDS*

REV 1.0
8 NOVEMBER 2026
GHS REV.11 (2025)

CAS **110-17-8** EC **203-743-0** SIGNAL WORD **WARNING**

**GHS07**
Eye Irritant

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

| | |
|---|---|
| **Product Name** | Fumaric Acid (Food Grade, FCC) |
| **Product Type** | Dicarboxylic organic acid — acidulant (substance) |
| **Chemical Family** | Unsaturated dicarboxylic acid (trans-butenedioic acid) |
| **CAS No.** | 110-17-8 |
| **EC No.** | 203-743-0 |
| **EC Index No.** | 607-146-00-X |
| **Grade** | Food grade, FCC 14 (assay 99.50% min, dry basis) |
| **Intended Use** | Food acidulant and chemical intermediate (food-grade FCC material). |
| **Restrictions on Use** | Industrial / professional use. Confirm food-law suitability of the batch against its certificate of analysis. |
| **Supplier** | Supreme Petro Chemicals |
| **Address** | No. 145, 1st Floor, Raja Muthiah Road, Periyamet, Chennai – 600003, India |
| **Emergency Contact** | Raj Kumar — +91 86675 84068 · Sudarshan — +91 81979 47045 |
| **Email** | admin@supremepetrochemicals.com |
| **Product Page** | https://www.supremepetrochemicals.com/products/fumaric-acid |
| **SDS Revision** | November 2026 |
| **SDS Version** | 1.0 |

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## SECTION 2 HAZARD IDENTIFICATION

> Eye Irrit. 2

| | |
|---|---|
| **Serious Eye Damage / Irritation** | Category 2 — H319: Causes serious eye irritation |
| **Signal Word** | WARNING |
| **GHS Pictograms** | GHS07 (Exclamation mark) |
| **Other Hazards** | Contains no PBT or vPvB substance at 0.1% or above. |

### HAZARD STATEMENTS

- H319 — Causes serious eye irritation.

### PRECAUTIONARY — PREVENTION

- P280 — Wear eye protection / face protection.

### PRECAUTIONARY — RESPONSE / STORAGE / DISPOSAL

- P305 + P351 + P338 — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337 + P313 — If eye irritation persists: Get medical advice / attention.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

| COMPONENT | CAS NO. | EC NO. | % W/W | GHS CLASSIFICATION |
|---|---|---|---|---|
| Fumaric acid | 110-17-8 | 203-743-0 | ≥ 99.5 (dry basis) | Eye Irrit. 2 (H319) |

*Mono-constituent substance. Assay per SPC TDS (FCC 14: 99.50% min on dry basis; loss on drying 0.25% max; maleic acid 0.05% max). Full text of H-statements in Section 16.*

## SECTION 4 FIRST AID MEASURES

| | |
|---|---|
| **Inhalation** | Move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| **Skin Contact** | Wash off with soap and plenty of water. Consult a physician. |
| **Eye Contact** | Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. |

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| | |
|---|---|
| **Ingestion** | Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |
| **Symptoms** | Serious eye irritation; mild skin irritation. Gastrointestinal disturbance may occur if swallowed. Chemical, physical and toxicological properties have not been thoroughly investigated. |
| **Note to Physician** | No data available |

## SECTION 5 FIREFIGHTING MEASURES

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|---|---|
| **Suitable Extinguishing Media** | Water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| **Unsuitable Media** | No data available |
| **Specific Hazards** | Non-combustible solid (storage class: non-combustible solids). Flash point 230 °C (closed cup). |
| **Hazardous Combustion Products** | Carbon oxides. |
| **Protective Equipment** | Wear self-contained breathing apparatus for firefighting if necessary. |

## SECTION 6 ACCIDENTAL RELEASE MEASURES

| | |
|---|---|
| **Personal Precautions** | Use personal protective equipment. Avoid dust formation and avoid breathing dust. Ensure adequate ventilation. |
| **Environmental Precautions** | Do not let product enter drains. |
| **Containment / Clean-up** | Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. |
| **Reference to Sections** | See Section 8 for PPE and Section 13 for disposal. |

## SECTION 7 HANDLING AND STORAGE

| | |
|---|---|
| **Handling Precautions** | Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. |
| **Hygiene** | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday. |
| **Storage Conditions** | Store in a cool place. Keep container tightly closed in a dry and well-ventilated place. Storage class: non-combustible solids. |

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| | |
|---|---|
| **Incompatible Materials** | Oxidising agents, amines, strong bases. |
| **Packaging (per SPC TDS)** | 25 kg bags. |

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

| | |
|---|---|
| **Occupational Exposure Limit** | No data available (no occupational exposure limit listed in reviewed sources). DNEL (workers, long-term systemic): 50 mg/kg bw/day (dermal); 175 mg/m³ (inhalation). PNEC: fresh water 0.1 mg/L; marine water 0.01 mg/L; sewage treatment plant 3 mg/L; intermittent aquatic release 1 mg/L. |
| **Engineering Controls** | Exhaust ventilation where dust is formed. Handle in accordance with good industrial hygiene and safety practice. |
| **Eye / Face Protection** | Safety glasses with side-shields conforming to EN 166, or approved equivalent. |
| **Hand / Skin Protection** | Gloves inspected before use; use proper glove removal technique. Impervious clothing selected to the concentration and amount handled. |
| **Respiratory Protection** | For nuisance dust exposure use a P95 (US) or P1 (EN 143) particle respirator; for higher protection use OV/AG/P99 (US) or ABEK-P2 (EN 143) cartridges. |

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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|---|---|
| **Appearance** | Solid — white crystalline powder (per SPC TDS). |
| **Odour** | No data available |
| **Odour Threshold** | No data available |
| **pH** | 2.1 (4.9 g/L, 20 °C) |
| **Melting / Freezing Point** | 290 °C |
| **Boiling Point / Range** | No data available |
| **Flash Point** | 230 °C (closed cup, DIN 51755 Part 1) |
| **Evaporation Rate** | No data available |
| **Flammability** | No data available |
| **Lower / Upper Explosive Limit** | 3 % (v/v) / 40 % (v/v) |
| **Vapour Pressure** | 2.2 hPa at 165 °C |
| **Vapour Density** | No data available |
| **Relative Density** | 1.635 g/cm³ at 20 °C |

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| | |
|---|---|
| **Solubility in Water** | 0.7 g/100 mL at 30 °C (SPC TDS) |
| **Log Pow (n-octanol / water)** | 0.46 at 20 °C |
| **Auto-ignition Temperature** | ca. 399 °C at 1,013 hPa |
| **Decomposition Temperature** | No data available |
| **Viscosity** | Not applicable (solid) |
| **Molecular Weight** | 116.07 g/mol ($C_4H_4O_4$) |
| **Explosive / Oxidising Properties** | No data available |

## SECTION 10 STABILITY AND REACTIVITY

| | |
|---|---|
| **Reactivity** | No data available |
| **Chemical Stability** | Stable under recommended storage conditions. |
| **Conditions to Avoid** | No data available |
| **Incompatible Materials** | Oxidising agents, amines, strong bases. |
| **Hazardous Decomposition** | Carbon oxides under fire conditions. Other decomposition products: No data available. |
| **Hazardous Reactions** | No data available |

## SECTION 11 TOXICOLOGICAL INFORMATION

| | |
|---|---|
| **Acute Oral Toxicity** | $LD_{50}$ (rat, female) = 9,300 mg/kg (OECD 401). Not classified. |
| **Acute Dermal Toxicity** | $LD_{50}$ (rabbit, female) = 20,000 mg/kg (OECD 402). Not classified. |
| **Acute Inhalation Toxicity** | No data available |
| **Skin Irritation** | Mild skin irritation, rabbit, 4 h (OECD 404). Not classified. |
| **Eye Irritation** | Irritating to eyes, rabbit (OECD 405). Classified Eye Irrit. 2 (H319). |
| **Sensitisation** | Does not cause skin sensitisation — guinea pig maximisation test (OECD 406). |
| **Germ Cell Mutagenicity** | Negative (mouse lymphocyte). |
| **Carcinogenicity** | No component at 0.1% or above is identified as a probable, possible or confirmed human carcinogen by IARC. |
| **Reproductive Toxicity / STOT / Aspiration** | No data available |
| **Repeated Dose Toxicity** | NOAEL (rat, male, oral) = 600 mg/kg. |

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## SECTION 12 ECOLOGICAL INFORMATION

| | |
|---|---|
| **Aquatic Toxicity** | Fish: $LC_{50}$ (Danio rerio, 96 h) > 100 mg/L. Daphnia magna: $EC_{50}$ (48 h) = 212 mg/L. Algae: $EC_{50}$ (72 h) > 100 mg/L. Activated sludge: $EC_{50}$ (3 h) > 300 mg/L. |
| **Persistence / Degradability** | Readily biodegradable: 67.5% in 28 days (OECD 301B). |
| **Bioaccumulation** | No data available (log Pow 0.46). |
| **Mobility in Soil** | No data available |
| **PBT / vPvB** | Contains no PBT or vPvB substance at 0.1% or above. |
| **Other Adverse Effects** | No data available |

## SECTION 13 DISPOSAL CONSIDERATIONS

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|---|---|
| **Waste from Product** | Offer surplus and non-recyclable material to a licensed disposal company. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. |
| **Contaminated Packaging** | Dispose of as unused product. |
| **Indian Regulations** | Manage disposal under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and applicable SPCB / CPCB requirements. |

## SECTION 14 TRANSPORT INFORMATION

| PARAMETER | UN / ADR (ROAD) | IMDG (SEA) | IATA (AIR) |
|---|---|---|---|
| UN Number | Not regulated | Not regulated | Not regulated |
| Proper Shipping Name | Not dangerous goods | Not dangerous goods | Not dangerous goods |
| Class | Not applicable | Not applicable | Not applicable |
| Packing Group | Not applicable | Not applicable | Not applicable |
| Marine Pollutant | No | No | No |

*Not dangerous goods under ADR / RID, IMDG or IATA. Verify current carrier rules and consignment requirements before shipment.*

## SECTION 15 REGULATORY INFORMATION

| | |
|---|---|
| **EU / REACH / CLP** | EC No. 203-743-0; Index No. 607-146-00-X; classified Eye Irrit. 2 (H319). A chemical safety assessment has been carried out for this |

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| | |
|---|---|
| | substance. The manufacturer's material is REACH registered (per SPC TDS). |
| **Food Regulation (India)** | Manufacturer holds FSSAI licence 10012042000166 (per SPC TDS). Food-grade status is established by the batch certificate of analysis. |
| **India** | Observe applicable Indian regulations, including the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989, the Environment (Protection) Act, 1986, the Factories Act, 1948 and the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Confirm current occupational exposure limits with the relevant State / Central authority. |

## SECTION 16 OTHER INFORMATION

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|---|---|
| **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** | 8 November 2026 |
| **Version** | 1.0 (new issue) |
| **Key Sources** | Central Drug House (CDH) Fumaric Acid SDS CAS 110-17-8 (Merck / Sigma-Aldrich-format data; undated); SPC TDS SPC-TDS-ACD-010 (Thirumalai Chemicals Limited, FCC 14). Full list in scripts/sds-batch/sources-2026-11.md. |
| **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. **Supreme Petro Chemicals** is a trader and distributor, not the manufacturer. |

### FULL TEXT OF H-STATEMENTS

- H319 — Causes serious eye irritation