



SUPREME PETRO
CHEMICALS

IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS ·
SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road,
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admin@supremepetrochemicals.com

SAFETY DATA SHEET (SDS)

Citric Acid Monohydrate *SDS*

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

CAS 5949-29-1 EC See ECHA / supplier SDS SIGNAL WORD DANGER

GHS07

Harmful / Irritant

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

Product Name	Citric Acid Monohydrate
Product Type	2-Hydroxy-1,2,3-propanetricarboxylic acid hydrate (1:1) – industrial chemical
Chemical Family	Hydroxy carboxylic acid (monohydrate)
CAS No.	5949-29-1
EC No.	See ECHA / supplier SDS
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/citric-acid-monohydrate
SDS Revision	July 2026
SDS Version	3.1

SECTION 2 HAZARD IDENTIFICATION

Skin Irrit. 2; Eye Irrit. 2; STOT SE 3. Not classified for unlisted hazard classes based on reviewed source data.



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GHS Classification	Skin Irritation Category 2 (H315); Eye Irritation Category 2 (H319); STOT Single Exposure Category 3 — Respiratory tract irritation (H335)
Signal Word	WARNING
GHS Pictograms	GHS07 (Harmful / Irritant)

HAZARD STATEMENTS

- H315 — Causes skin irritation
- H319 — Causes serious eye irritation
- H335 — May cause respiratory irritation

PRECAUTIONARY — PREVENTION

- P260 — Do not breathe dust / vapours / spray.
- P264 — Wash hands thoroughly after handling.
- P271 — Use only outdoors or in a well-ventilated area.
- P272 — Contaminated work clothing should not be allowed out of the workplace.
- P280 — Wear protective gloves / eye protection / face protection.

PRECAUTIONARY — RESPONSE / STORAGE / DISPOSAL

- P302+P352 — IF ON SKIN: Wash with plenty of water.
- 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.
- P321 — Specific treatment (see Section 4 — First Aid).
- P330 — Rinse mouth.
- P332+P313 — If skin irritation occurs: Get medical advice / attention.
- P337+P313 — If eye irritation persists: Get medical advice / attention.
- P362 — Take off contaminated clothing and wash before reuse.
- P403+P233 — Store in a well-ventilated place. Keep container tightly closed.
- P405 — Store locked up.
- P501 — Dispose of contents / container in accordance with local regulations.



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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	EC NO.	% W/W	GHS CLASSIFICATION
Citric Acid Monohydrate	5949-29-1	See ECHA / supplier SDS	100	Skin Irrit. 2 (H315); Eye Irrit. 2 (H319); STOT SE 3 (H335)

Substance is not a mixture. Percentages are by weight. Full text of H-statements listed in Section 16.

SECTION 4 FIRST AID MEASURES

Inhalation	Remove person to fresh air. Keep comfortable for breathing. If symptoms persist, seek medical attention.
Skin Contact	Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Seek medical attention if irritation develops or persists.
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 if irritation persists.
Ingestion	Rinse mouth. Do not induce vomiting unless directed by medical personnel. Seek medical advice if symptoms occur.
Note to Physician	Treat symptomatically based on exposure route and product hazards. No specific antidote known.

SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Water spray, dry chemical powder, carbon dioxide (CO ₂), foam — appropriate for surrounding fire.
Unsuitable Media	Avoid direct high-pressure water jet where it may spread burning material.
Specific Hazards	Citric acid monohydrate is not flammable under GHS criteria. Dust or fine particulate may form irritating or combustible atmospheres at elevated concentrations. Carbon oxides and irritating fumes may be produced in fire. Containers may rupture when heated.
Protective Equipment	Wear full protective clothing and self-contained breathing apparatus (SCBA).



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Special Procedures	Evacuate non-essential personnel. Prevent contaminated fire-fighting run-off from entering drains and waterways.
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SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate area. Wear appropriate PPE as specified in Section 8 (gloves, dust mask / respirator, eye protection). Avoid raising dust.
Environmental Precautions	Prevent entry into drains, sewers, soil, and watercourses. Notify authorities if significant environmental release occurs.
Containment / Clean-up	Collect spilled material into labelled, compatible containers for disposal. Sweep or vacuum dry solid; avoid generating dust. For large spills, use suction equipment.
Reference to Sections	See Section 8 for PPE; Section 13 for disposal; Section 15 for regulatory information.

SECTION 7 HANDLING AND STORAGE

Handling Precautions	Use adequate local exhaust ventilation to control dust. Avoid contact with skin and eyes. Avoid inhalation of dust. Keep container tightly closed when not in use.
Hygiene	Wash hands thoroughly after handling. Remove contaminated clothing before reuse. Do not eat, drink, or smoke when using this product.
Storage Conditions	Store in original, tightly closed compatible containers in a cool, dry, well-ventilated area. Inspect containers regularly for leakage or damage.
Storage Temperature	Ambient temperature (15–25 °C recommended). Keep dry; citric acid monohydrate effloresces in dry air above 36.6 °C losing water of crystallisation.
Incompatible Materials	Strong oxidising agents (nitric acid, permanganates, peroxides, chlorine). Concentrated acids and halogens. Reactive with aluminium chloride under elevated temperature.
Segregation	Segregate from food, drink, animal feed, and incompatible chemicals.



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SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit	No specific OEL established for citric acid monohydrate by OSHA, NIOSH, ACGIH, or India CPCB/MoEFCC as of issue date. Apply ALARA / good industrial hygiene principles. Verify current local OEL before use.
Engineering Controls	Use local exhaust ventilation (LEV) or enclosed handling systems to control dust and maintain levels below any applicable OEL. Provide general dilution ventilation as a supplement.
Respiratory Protection	Where dust cannot be adequately controlled by ventilation, use a NIOSH/EN 143 P2 / P100 particulate respirator. Use SCBA for emergency situations.
Hand / Eye / Skin	Hands: Wear chemical-resistant gloves (nitrile, butyl, or neoprene). Eye/face: Wear EN 166 / ANSI Z87.1 chemical splash goggles; add face shield where splash risk exists. Body: Wear dust-resistant protective clothing and safety footwear. Provide eyewash station and safety shower in the working area.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White crystalline powder or granules
Odour	Odourless
Odour Threshold	Not established
pH	~2.1 (1% aqueous solution at 25 °C); verify from supplier COA / SDS for grade-specific concentration.
Melting / Freezing Point	~100 °C (loses water of crystallisation); anhydrous form melts at ~153 °C
Boiling Point / Range	Decomposes before boiling; decomposition begins ~175 °C
Flash Point	Not applicable — solid, not classified as flammable (no flash point by standard methods)
Auto-ignition Temperature	~345 °C (dust cloud); verify with supplier for specific grade
Flammability Limits	Not applicable as supplied (solid powder); dust explosion index (K _{st}) not established in reviewed data
Vapour Pressure	<0.001 mmHg at 20 °C (negligible)
Vapour Density (air = 1)	Not applicable (solid)
Relative Density	~1.54 g/cm ³ at 20 °C (verify with supplier)
Solubility in Water	59.2 g/100 mL at 20 °C (readily soluble)



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Log Pow (Partition Coeff.)	-1.72 (hydrophilic; low bioaccumulation potential)
Evaporation Rate	Not applicable (solid)
Viscosity	Not applicable (solid)
VOC Content	Negligible / nil — solid, not classified as VOC

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage and handling conditions.
Conditions to Avoid	Avoid heat above 36.6 °C (effloresces, losing crystal water). Avoid ignition sources for fine dust. Avoid contamination and contact with incompatible materials.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides). Concentrated acids and halogens. Reactive with aluminium chloride (AlCl ₃) under elevated temperature — not a concern in ambient blending or storage.
Hazardous Decomposition	Carbon oxides (CO, CO ₂) and irritating or toxic fumes may be formed in fire or at elevated temperatures.
Hazardous Reactions	No hazardous reactions under normal storage and handling conditions.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD ₅₀ (rat, oral): ~3,000 mg/kg bw (PubChem / ECHA data); low acute oral toxicity. Not classified for acute toxicity by ingestion under GHS.
Acute Dermal Toxicity	Not classified. Numeric LD ₅₀ (dermal) not established in reviewed data; confirm with supplier SDS.
Acute Inhalation Toxicity	Not classified. Dust may cause respiratory tract irritation (STOT SE 3, H335).
Skin Irritation	Causes skin irritation (Skin Irrit. 2, H315). Confirmed by classification.
Eye Irritation	Causes serious eye irritation (Eye Irrit. 2, H319). Confirmed by classification.
Sensitisation	Not classified as a skin or respiratory sensitiser based on reviewed data.
Carcinogenicity	Not classified as a carcinogen. Not listed by IARC, NTP, or OSHA as a carcinogen.
Mutagenicity	Not classified. No evidence of mutagenicity in reviewed data.



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SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	No acute or chronic aquatic classification identified from reviewed data. Citric acid is a natural metabolite; moderate aquatic impact expected at high concentrations. Avoid release to watercourses. Obtain supplier / ecotoxicity data if required for registration or export.
Persistence / Degradability	Readily biodegradable (citric acid is a natural tricarboxylic acid metabolised in the Krebs cycle). BOD/COD data should be obtained from supplier SDS for precise assessment.
Bioaccumulation	Low bioaccumulation potential; log Pow = -1.72. BCF expected to be low.
Mobility in Soil	High water solubility indicates high mobility in soil. Prevent release to soil and groundwater.
Other Adverse Effects	Avoid uncontrolled release to the environment. Manage releases under applicable local environmental regulations.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste from Product	Dispose of contents through an authorised waste contractor in accordance with local / national regulations. Do not dispose of in drains, on land, or in watercourses.
Contaminated Packaging	Empty containers may retain residues; handle as potentially hazardous until cleaned or disposed of in accordance with regulations.
Indian Regulations	Follow Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (as amended) and applicable State Pollution Control Board 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 regulated	Not regulated	Not regulated
Class	Not regulated	Not regulated	Not regulated
Packing Group	Not applicable	Not applicable	Not applicable



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PARAMETER	UN / ADR (ROAD)	IMDG (SEA)	IATA (AIR)
Marine Pollutant	No	No	—

Citric acid monohydrate is not classified as a dangerous good under ADR, IMDG, or IATA-DGR. No UN transport entry applies. Use an approved compatible container appropriate to the product for shipment. Verify current carrier requirements before shipment.

SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP	Observe REACH and CLP requirements where applicable. Classified and labelled according to the GHS/CLP classification listed in Section 2.
OSHA (USA)	Prepared in OSHA HCS/HazCom-aligned 16-section SDS format. Observe applicable workplace chemical requirements.
India	Observe applicable Indian MSIHC Rules, Factories Act, Hazardous Waste Rules 2016, and State Pollution Control Board requirements.
Other Jurisdictions	China (GB/T): Apply applicable GB/T SDS and classification requirements where marketed. Middle East / GCC: Observe GHS-aligned local requirements. Australia (AICS): Check inventory status before import. Canada WHMIS/HPR: Classify and label under WHMIS 2015/HPR; Canadian sale may require bilingual SDS/label. TSCA (USA): Verify TSCA inventory status before US import or distribution.
Regulatory Scope Limitation	Final market placement requires confirmation of inventory status, local OELs, transport class, waste code, and restrictions. This SDS does not constitute a regulatory compliance guarantee.

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

- H315 — Causes skin irritation



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