



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)

Boric Acid *SDS*

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

CAS **10043-35-3** EC **233-139-2** SIGNAL WORD **DANGER**

GHS07

Harmful / Irritant

GHS08

Health Hazard

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

Product Name	Boric Acid
Product Type	Industrial chemical — inorganic acid / boron compound
Chemical Family	Boric Acid
CAS No.	10043-35-3
EC No.	233-139-2
Intended Use	Industrial / professional use — e.g. wood preservative, flame retardant, glass/ceramic manufacture, pharmaceuticals, water treatment, metal plating bath.
Restrictions on Use	Industrial / professional use only. Confirm suitability for final application before use. Not for food contact or consumer use without regulatory clearance.
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/boric-acid
SDS Revision	July 2026
SDS Version	3.1



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SECTION 2 HAZARD IDENTIFICATION

GHS / CLP Classification: Repr. 1B (H360); Skin Irrit. 2 (H315); Eye Irrit. 2 (H319);
STOT SE 3 (H335); STOT RE 1 (H372); Aquatic (H402)

Signal Word

DANGER

GHS Pictograms

GHS07 (Harmful / Irritant) | GHS08 (Health Hazard)

HAZARD STATEMENTS

- H360 — May damage fertility or the unborn child
- H315 — Causes skin irritation
- H319 — Causes serious eye irritation
- H335 — May cause respiratory irritation
- H372 — Causes damage to organs through prolonged or repeated exposure
- H402 — Harmful to aquatic life
- H370 — Causes damage to organs (source SDS included; verify classification basis — see flags)

PRECAUTIONARY — PREVENTION

- P260 — Do not breathe dust / fume / vapours.
- 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.
- P233 — Keep container tightly closed.

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.
- P331 — Do NOT induce vomiting.



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- 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
Boric Acid	10043-35-3	233-139-2	100	Repr. 1B (H360); Skin Irrit. 2 (H315); Eye Irrit. 2 (H319); STOT SE 3 (H335); STOT RE 1 (H372); Aquatic (H402)

Full text of H-statements listed in Section 16. Percentages are by weight (w/w). EC No. 233-139-2 is the EINECS number for boric acid.

SECTION 4 FIRST AID MEASURES

Inhalation	Remove affected person to fresh air immediately. If breathing is difficult, administer oxygen. If symptoms (cough, respiratory irritation) persist, seek medical attention.
Skin Contact	Remove contaminated clothing and footwear immediately. Wash affected area thoroughly with soap and water for at least 15 minutes. Seek medical attention if irritation persists.
Eye Contact	Immediately rinse eyes with clean water for at least 15 minutes, holding eyelids open. Remove contact lenses if present and easy to do. Continue rinsing. Seek immediate medical attention.
Ingestion	Rinse mouth thoroughly with water. Do not induce vomiting unless directed by medical personnel. Immediately call a POISON CENTER or doctor. Give water to drink if conscious and able to swallow.
Note to Physician	Treat symptomatically. Boric acid is absorbed through skin and mucous membranes; systemic toxicity (vomiting, diarrhoea, CNS effects) may follow significant ingestion. Reproductive hazard (Repr. 1B) — monitor for systemic effects. No specific antidote.



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SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Boric acid is non-combustible. Use extinguishing media suitable for the surrounding fire (water spray, dry chemical, CO ₂ , foam).
Unsuitable Media	High-pressure direct water jet (may spread dust/residue).
Specific Hazards	Boric acid does not burn. On strong heating or in fire conditions, decomposes above 300°C releasing boron oxide fumes (B ₂ O ₃), which are irritating to eyes and respiratory tract. No explosion hazard under normal conditions.
Protective Equipment	Wear full protective clothing and self-contained breathing apparatus (SCBA). Prevent contaminated fire-fighting run-off from entering drains and watercourses.
Special Procedures	Evacuate non-essential personnel. Cool containers exposed to heat with water spray. Collect contaminated run-off for proper disposal.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate the spill area. Keep non-essential personnel away. Avoid generating and inhaling dust. Use PPE as specified in Section 8 (at minimum: dust mask/respirator, gloves, safety goggles).
Environmental Precautions	Prevent entry into drains, sewers, soil and watercourses. Boric acid is harmful to aquatic life (H402). Notify relevant authorities if significant environmental release occurs.
Containment / Clean-up	Sweep or vacuum up spilled solid carefully to avoid raising dust. Collect in labelled, compatible, sealed containers for disposal. Wash spill area with water. Do not flush to drain without authorisation.
Reference to Sections	See Section 8 for PPE details, Section 13 for disposal, and Section 15 for regulatory information.

SECTION 7 HANDLING AND STORAGE

Handling Precautions	Avoid generating dust. Use adequate local exhaust ventilation. Avoid contact with skin, eyes and clothing. Avoid inhalation of dust. Keep container tightly closed when not in use.
Hygiene	Wash hands thoroughly after handling. Remove and wash contaminated clothing before reuse. Do not eat, drink or smoke



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	when using this product. Do not allow dust to settle on exposed skin or enter eyes.
Storage Conditions	Store in original tightly closed compatible containers (polyethylene, polypropylene, glass). Keep in a cool, dry, well-ventilated area away from direct sunlight and moisture.
Storage Temperature	Ambient temperature (recommended 5°C to 40°C). Stable at normal storage temperatures.
Incompatible Materials	Strong oxidising agents, alkali metals, acetic anhydride, potassium. Avoid contact with concentrated alkalis and reactive metals.
Segregation	Segregate from food, drink, animal feed, incompatible chemicals, oxidisers and reactive materials. Store locked up when reproductive hazard exposure risk exists.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit	Boric acid (CAS 10043-35-3): ACGIH TLV-TWA 2 mg/m ³ (inhalable fraction, as boron). OSHA PEL: not specifically established; apply ALARA. UK WEL: 2 mg/m ³ TWA, 6 mg/m ³ STEL. India: consult Factory Inspector / MSIHC Rules; apply ACGIH TLV as guidance. Verify current local OELs before use.
Engineering Controls	Use enclosed handling systems or local exhaust ventilation to control airborne dust below OEL. Provide general dilution ventilation in addition. Explosion-proof equipment not required (non-flammable solid).
Respiratory Protection	If dust generation cannot be controlled below OEL by engineering means, use NIOSH-approved or EN 143 particulate respirator (minimum FFP2/N95 for nuisance dust; P100 for high-concentration scenarios). Use SCBA for emergency/spill situations.
Hand / Eye / Skin	Gloves: chemical-resistant gloves (nitrile ≥0.33 mm, neoprene or PVC); check breakthrough time for the task. Eyes/Face: EN 166 / ANSI Z87.1 chemical splash goggles; add face shield when handling bulk quantities. Body: chemical-resistant apron and safety footwear. Provide eyewash station and safety shower in work area.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White crystalline powder, granules, or transparent colourless crystals (dry solid)
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Odour	Odourless
Odour Threshold	Not applicable (odourless solid)
pH	~5.1 (0.1 M aqueous solution at 25°C); weakly acidic in solution. Not applicable for dry solid.
Melting / Freezing Point	171°C (decomposes; converts to metaboric acid HBO_2)
Boiling Point / Range	300°C (decomposes; converts to boron trioxide B_2O_3) — source SDS listed 572°F (= 300°C) under Flash Point; re-mapped to Boiling/Decomposition Point
Flash Point	Not applicable — boric acid is a non-combustible inorganic solid
Auto-ignition Temperature	Not applicable (non-combustible solid)
Flammability Limits	Not flammable; no LEL/UEL applicable
Vapour Pressure	1.6×10^{-6} mmHg at 25°C (2.1×10^{-4} Pa) — extremely low; re-mapped from Vapour Density field in source SDS
Vapour Density (air = 1)	Not applicable (negligible vapour at ambient conditions; solid)
Relative Density	1.435 g/cm ³ at 20°C (denser than water)
Solubility in Water	~50 g/L (5% w/v) at 20°C; ~60 g/L at 30°C. Partially soluble in cold water; more soluble in hot water. Solubility increases significantly with temperature. — re-mapped from Log Pow field in source SDS (source value: 10–50 mg/mL at 66°F)
Log Pow (Partition Coeff.)	–1.09 (log Kow; hydrophilic) — re-mapped from Evaporation Rate field in source SDS
Evaporation Rate	Not applicable (non-volatile solid)
Viscosity	Not applicable (solid)
VOC Content	0% (inorganic solid; not a VOC)

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage and handling conditions. Stable at ambient temperature. Decomposes on heating above 171°C (to metaboric acid), then above 300°C (to boron trioxide).
Conditions to Avoid	Temperatures above 171°C. Contact with moisture in sealed containers (minor, but can cause caking). Contact with strong alkalis.
Incompatible Materials	Strong oxidising agents (e.g. nitric acid, permanganates, peroxides); alkali metals; acetic anhydride; potassium. Reactive with aluminium chloride (AlCl_3) under elevated temperature — not a concern under normal ambient handling.



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Hazardous Decomposition	On thermal decomposition / fire: boron trioxide (B_2O_3) fumes (irritating to eyes and respiratory tract). No toxic gas generation under ambient conditions.
Hazardous Reactions	No hazardous polymerisation. No self-ignition. Will not occur under normal storage and handling conditions.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD ₅₀ (rat, oral): approximately 2,660 mg/kg (RTECS / ECHA). Low acute toxicity by oral route; however systemic effects possible at high doses (vomiting, diarrhoea, erythema, CNS effects). Classified H303 in source SDS — see flags.
Acute Dermal Toxicity	Not classified for acute dermal toxicity; absorption through intact skin is low but possible through damaged skin. Irritant (Skin Irrit. 2; H315).
Acute Inhalation Toxicity	Dust/aerosol inhalation may cause respiratory irritation (STOT SE 3; H335). Vapour exposure negligible at ambient conditions.
Skin Irritation	Classified Skin Irrit. 2 (H315). May cause mild to moderate skin irritation on prolonged or repeated contact.
Eye Irritation	Classified Eye Irrit. 2 (H319). Causes serious eye irritation; dust or solution contact requires immediate rinsing.
Sensitisation	Not classified as a skin or respiratory sensitiser.
Carcinogenicity	Not classified as carcinogenic by IARC, EU CLP, or OSHA. No evidence of carcinogenicity.
Mutagenicity	Not classified as a mutagen. No evidence of genotoxicity in standard assays.
Reproductive Toxicity	Classified Repr. 1B (H360) — may damage fertility or the unborn child. Reproductive toxicant in animal studies. Pregnant workers must avoid exposure.
STOT — Single Exposure	STOT SE 3 (H335) — may cause respiratory irritation. H370 listed in source SDS — see flags for classification basis.
STOT — Repeated Exposure	STOT RE 1 (H372) — causes damage to organs through prolonged or repeated exposure (kidneys, testes). Medical surveillance recommended for occupationally exposed workers.



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SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	Classified H402 (Harmful to aquatic life). Acute LC ₅₀ (fish, 96h): 74–100 mg/L range cited in ECHA data; EC ₅₀ (Daphnia): ≥100 mg/L. Chronic aquatic classification: obtain supplier/ECHA ecotoxicity data for registration or export compliance.
Persistence / Degradability	Boric acid is an inorganic substance; biodegradation is not applicable. Boron occurs naturally in the environment; environmental fate depends on soil pH, adsorption and leaching. Does not deplete the ozone layer.
Bioaccumulation	Low bioaccumulation potential. Log Kow = –1.09; BCF expected to be negligible. No significant bioconcentration in aquatic organisms.
Mobility in Soil	Moderate mobility in soil. Boron is water-soluble and can leach to groundwater. Adsorption to soil is pH-dependent (higher adsorption at alkaline pH). Prevent release to soil and groundwater.
Other Adverse Effects	Avoid uncontrolled release to the environment. Excess boron in irrigation water can be phytotoxic to sensitive crops. Manage releases and waste under applicable local environmental regulations.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste from Product	Dispose of contents through an authorised hazardous waste contractor in accordance with local regulations. Boric acid waste is subject to reproductive and aquatic hazard classifications — do not dispose to drain, sewer, or landfill without regulatory authorisation.
Contaminated Packaging	Empty containers may retain residues; handle as hazardous until cleaned or disposed of through an approved contractor. Do not reuse packaging for food or drink.
Indian Regulations	Manage as hazardous waste under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (amended). Follow applicable State Pollution Control Board requirements. Schedule H1 substance (reproductive toxicant) — handle accordingly.



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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 regulated	Not regulated	Not regulated
Marine Pollutant	N/A	No	N/A

Boric acid (CAS 10043–35–3) is not listed as a dangerous good under UN/ADR, IMDG or IATA DGR in standard transport reference sources. No UN Number assigned. Verify with current edition of ADR/IMDG/IATA DGR and carrier rules before shipment. Use UN-approved, labelled packaging appropriate to the product form (powder/granules). Note in source SDS: reference to 'Class 3 placard, PG II' in packaging note appears erroneous for this substance and has been removed.

SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP

Boric acid is a Substance of Very High Concern (SVHC) listed on the ECHA Candidate List (reproductive toxicant, Repr. 1B). Subject to REACH authorisation requirements for certain uses. Classified and labelled per CLP Regulation (EC) No 1272/2008 as per Section 2. Restriction: Article 67 / Annex XVII of REACH may apply; verify current restriction text.

OSHA (USA)

Prepared in OSHA HCS 2012 / HazCom aligned 16-section SDS format. Not listed as a carcinogen by NTP, IARC or OSHA. Check TSCA inventory status (CAS 10043–35–3 is an active TSCA substance).

India

Observe applicable requirements under the MSIHC Rules, 1989 (amended); Hazardous and Other Wastes Rules, 2016; Factories Act, 1948 (Schedule); Environment Protection Act, 1986; Water / Air (Prevention and Control of Pollution) Acts. Reproductive toxicant — treat as Schedule H1 substance; advise pregnant workers not to handle.

Other Jurisdictions

Canada WHMIS 2015/HPR: classify/label using Section 2 classification; bilingual SDS may be required for Canadian sale. Australia AICS: verify inventory status before import/export. Middle East/GCC: observe applicable GHS-aligned local requirements. China (GB/T): use applicable GB/T SDS and classification requirements where marketed.



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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)
Key Changes in Rev 3.0	Section 9 physical properties corrected: values were misallocated across Flash Point, Melting Point, Boiling Point, Relative Density, Solubility, Log Pow and Evaporation Rate fields in Rev 1.0. Flash Point re-classified as not applicable (non-combustible solid). Boiling/decomposition point (300°C) re-mapped from erroneously labelled Flash Point field. H-statement garbled text corrected. Company identity and address updated to canonical SPC format. Revision date and version updated.
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 shall not be liable for any loss, injury or damage resulting from reliance on this information.

FULL TEXT OF H-STATEMENTS

- H315 — Causes skin irritation
- H319 — Causes serious eye irritation
- H335 — May cause respiratory irritation
- H360 — May damage fertility or the unborn child
- H370 — Causes damage to organs [included from source SDS; classification basis should be verified against current ECHA/CLP entry — see flags]
- H372 — Causes damage to organs through prolonged or repeated exposure
- H402 — Harmful to aquatic life