SUPREME PETRO CHEMICALS
IMPORTER & DISTRIBUTOR OF INDUSTRIAL CHEMICALS · SINCE 1997

No. 145, 1st Floor, Raja Muthiah Road, Periyamet, Chennai – 600003, India
+91 86087 80096 · +91 81979 47045
admin@supremepetrochemicals.com

SAFETY DATA SHEET (SDS)

Sorbitol *SDS*

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

CAS **50-70-4** EC **200-061-5** SIGNAL WORD **DANGER**

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

Product Name	Sorbitol
Product Type	Industrial chemical — polyol / sugar alcohol
Chemical Family	Polyhydric alcohol (polyol); Sugar alcohol
CAS No.	50-70-4
EC No.	200-061-5
Intended Use	Industrial and professional use: humectant, plasticiser, excipient, surfactant intermediate, food-grade applications (confirm grade suitability). As described on the SPC product page.
Restrictions on Use	Industrial / professional use only. Confirm suitability for final application and regulatory compliance 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/sorbitol
SDS Revision	July 2026
SDS Version	3.1

SECTION 2 HAZARD IDENTIFICATION

> Not classified as hazardous under UN GHS Rev.11 (2025), EU CLP, OSHA HCS, or Canada WHMIS 2015 based on available data. No GHS hazard category assigned.

GHS Classification	Not classified as hazardous
Signal Word	Not classified
GHS Pictograms	None required

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HAZARD STATEMENTS

- None — substance is not classified as hazardous under GHS.

PRECAUTIONARY — PREVENTION

- P260 — Do not breathe dust.
- P270 — Do not eat, drink or smoke when using this product.
- P273 — Avoid release to the environment.

PRECAUTIONARY — RESPONSE / STORAGE / DISPOSAL

- P301+P312 — IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
- P305+P351+P338 — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- 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
Sorbitol (D-Glucitol)	50-70-4	200-061-5	≥ 99 (anhydrous basis); 70 (as 70 % aqueous solution — confirm grade)	Not classified as hazardous

Percentage by weight. Grade (solid vs. 70 % aqueous solution) must be confirmed with supplier COA before use. Full text of H-statements listed in Section 16 — none applicable for this substance.

SECTION 4 FIRST AID MEASURES

Inhalation	Remove person to fresh air. Keep comfortable for breathing. Seek medical attention if symptoms (cough, irritation) persist.
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. Seek medical attention if irritation persists.
Ingestion	Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical advice if large quantities ingested. Note: sorbitol is a laxative at high doses.

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Note to Physician	No specific antidote. Treat symptomatically based on exposure route. Large oral doses may cause osmotic diarrhoea.

SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Water spray, dry chemical, CO_2, foam. Water is the preferred medium for sorbitol fires.
Unsuitable Media	High-pressure direct water jet (may scatter burning dust or spread molten material).
Specific Hazards	Sorbitol is combustible as dust or when molten at elevated temperature. Dust clouds may form explosive or flammable atmospheres. Combustion products include carbon monoxide and carbon dioxide.
Protective Equipment	Wear full protective clothing and self-contained breathing apparatus (SCBA). Prevent contaminated fire-water run-off from entering drains and watercourses.
Special Procedures	Avoid generating dust. Cool containers exposed to heat with water spray. Evacuate non-essential personnel upwind. Dust layers present a deflagration risk — prevent accumulation on heated surfaces.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate area. Eliminate ignition sources if dust is present. Use PPE specified in Section 8. Avoid generating dust during clean-up.
Environmental Precautions	Prevent entry into drains, sewers, surface water and soil. Sorbitol is readily biodegradable but high concentrations in water bodies may cause BOD depletion.
Containment / Clean-up	Sweep or vacuum dry spillage; avoid generating dust. Collect in labelled, compatible, closed containers for disposal. Wash spill area with water. For liquid grade (70 % solution): absorb on inert material (sand, vermiculite); collect and dispose.
Reference to Sections	See Section 8 for PPE, Section 13 for disposal, Section 15 for regulatory information.

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SECTION 7 HANDLING AND STORAGE

Handling Precautions	Handle in a well-ventilated area. Avoid generating dust (solid form). Ground/bond equipment when transferring large quantities to prevent static discharge. Avoid prolonged skin contact with concentrated aqueous solution.
Hygiene	Wash hands after handling. Remove contaminated clothing before reuse. Do not eat, drink or smoke in the work area.
Storage Conditions	Store in original tightly closed, compatible containers (HDPE, stainless steel). Keep dry and away from heat and moisture. Inspect containers regularly for leakage or damage.
Storage Temperature	Ambient (15–30 °C). Aqueous grades: protect from freezing (crystallisation below ~10 °C). Solid grades: protect from humidity (hygroscopic).
Incompatible Materials	Strong oxidising agents (nitric acid, permanganates, chlorine, peroxides). Avoid contact with strong mineral acids; may caramelise at elevated temperature.
Segregation	Segregate from food, animal feed, strong oxidisers and incompatible chemicals.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit	Sorbitol (CAS 50-70-4): No specific OEL established by OSHA, NIOSH, ACGIH, or EU SCOEL. Apply ALARA / good industrial hygiene practice. Verify local/national OEL registers before use.
Engineering Controls	Use local exhaust ventilation to control dust or aerosol. Ensure adequate general ventilation. Closed handling preferred for large-scale operations.
Respiratory Protection	For dusty operations: NIOSH-approved P95/P100 half-mask respirator or EN 149 FFP2/FFP3. Not normally required for 70 % aqueous solution under good ventilation.
Hand / Eye / Skin	Gloves: chemical-resistant nitrile or PVC gloves for prolonged or repeated contact. Eyes: chemical splash goggles (EN 166 / ANSI Z87.1). Skin: chemical-resistant apron and safety footwear where splash risk exists. Eyewash station recommended where product is handled.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White crystalline powder or granules (solid grade); colourless to pale yellow viscous liquid (70 % aqueous solution)
Odour	Odourless (PEER REVIEWED)
Odour Threshold	Not established
pH	5.0–7.0 (10 % aqueous solution at 25 °C); not applicable for dry solid grade
Melting / Freezing Point	88–102 °C (SOURCE: USCG 1999 — range reflects polymorphic forms of sorbitol; consistent with published literature 95–97.7 °C for stable polymorph)
Boiling Point / Range	Decomposes before boiling; reported decomposition onset ~296 °C. Note: value '230 °F (110 °C)' in source text appears to be a solubility measurement reference temperature, not the boiling point of sorbitol — flagged for supplier verification.
Flash Point	Very high (> 280 °C, closed cup, USCG 1999). Sorbitol is not considered flammable under GHS/DOT criteria.
Auto-ignition Temperature	542 °F (283 °C) (USCG 1999) — plausible for dust cloud ignition; verify with supplier for dust explosion assessment.
Flammability Limits	Not established for bulk solid. Dust: minimum explosive concentration (MEC) requires site-specific testing.
Vapour Pressure	Negligible at ambient temperature (solid grade). Aqueous solution: approximately that of water.
Vapour Density (air = 1)	Not applicable (solid); aqueous vapour density approximately 1 (water vapour)
Relative Density	1.49 g/cm³ at 15 °C / 59 °F (USCG 1999) — denser than water. [CORRECTED: source text placed this value under 'Log Pow'.]
Solubility in Water	Very soluble in water (≈ 235 g/100 mL at 25 °C); slightly soluble in ethanol; practically insoluble in diethyl ether. [CORRECTED: source text placed this under 'Evaporation Rate'.]
Log Pow (Partition Coeff.)	-2.20 (PEER REVIEWED; consistent with published literature). [CORRECTED: source text placed this under 'Viscosity'.]
Evaporation Rate	Not applicable (solid). Negligible for 70 % aqueous solution. [CORRECTED: source text had solubility data here.]
Viscosity	70 % aqueous solution: approximately 110–130 mPa·s at 25 °C (supplier-dependent; confirm from COA).

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VOC Content	Negligible — solid polyol, not a volatile organic compound. Aqueous grade: essentially zero VOC.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage and handling conditions.
Conditions to Avoid	Heat above decomposition temperature, moisture (solid grades — hygroscopic), ignition sources in the presence of dust, contamination.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides). Avoid contact with concentrated mineral acids and halogens. Reactive with aluminium chloride ($AlCl_3$) under elevated temperature — not a concern in ambient blending or normal storage.
Hazardous Decomposition	Carbon monoxide, carbon dioxide, and irritating fumes or smoke may be formed in fire or at high temperatures.
Hazardous Reactions	No hazardous polymerisation. No hazardous reactions under normal storage and handling when kept away from strong oxidisers and heat sources.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD_{50} (rat, oral): > 15,800 mg/kg (RTECS). Practically non-toxic by ingestion; large doses cause osmotic diarrhoea. Not classified under GHS.
Acute Dermal Toxicity	Not classified. No significant dermal toxicity reported at concentrations in normal use.
Acute Inhalation Toxicity	Not classified. Dust inhalation may cause mild mechanical irritation of the respiratory tract.
Skin Irritation	Not classified as a skin irritant. May cause mild irritation under prolonged or repeated exposure conditions.
Eye Irritation	Not classified as an eye irritant. Mechanical irritation from dust or concentrated solution is possible.
Sensitisation	Not classified as a skin or respiratory sensitiser. No evidence of sensitisation in available literature.
Carcinogenicity	Not classified as carcinogenic. Not listed by IARC, NTP, or OSHA as a carcinogen.
Mutagenicity	Not classified. Ames test and available in vitro studies are negative.

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SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	Not classified as acutely or chronically hazardous to aquatic organisms. Sorbitol is a naturally occurring compound with low aquatic toxicity; avoid large-scale release.
Persistence / Degradability	Readily biodegradable. BOD_5/COD ratio indicates rapid microbial breakdown under aerobic conditions. High loading may cause oxygen depletion in aquatic systems.
Bioaccumulation	Not expected to bioaccumulate. Log Kow = -2.20 indicates very low bioaccumulation potential (BCF < 1).
Mobility in Soil	Very water-soluble; high mobility in soil and potential for leaching to groundwater. Prevent uncontrolled release to soil.
Other Adverse Effects	No ozone depletion potential. Not a greenhouse gas. Avoid large uncontrolled releases to sensitive aquatic environments due to BOD load.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste from Product	Dispose of through an authorised waste contractor in accordance with national and local regulations. Small quantities may be suitable for municipal wastewater where permitted — confirm with local authority. Solid waste may be suitable for composting or biological treatment where permitted.
Contaminated Packaging	Empty containers may retain residues. Rinse with water and dispose of through an approved route. Do not re-use for food or unrelated chemicals.
Indian Regulations	Manage waste under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016, Environment (Protection) Act 1986, and applicable state pollution-control board requirements. Sorbitol is not listed as scheduled hazardous waste; verify with local SPCB.

SECTION 14 TRANSPORT INFORMATION

PARAMETER	UN / ADR (ROAD)	IMDG (SEA)	IATA (AIR)
UN Number	Not regulated	Not regulated	Not regulated

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

Sorbitol (CAS 50-70-4) is not assigned a UN transport number and is not regulated as a dangerous good under ADR, IMDG, or IATA DGR based on available data. Use approved compatible containers. Verify current carrier requirements and national transport regulations before shipment, particularly for aqueous grades and large volumes.

SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP	Registered or exempt under REACH (EC 1907/2006). Not classified as hazardous under CLP (EC 1272/2008) / GHS based on current data. Observe applicable workplace, VOC, and environmental directives.
OSHA (USA)	Prepared in OSHA HCS / HazCom 2012 (29 CFR 1910.1200) aligned 16-section SDS format. Not classified as a hazardous chemical under HazCom. Sorbitol is generally recognised as safe (GRAS) by the US FDA (21 CFR 184.1835) in food applications — confirm grade for food contact.
India	Observe applicable requirements under the MSIHC Rules 1989 (as amended), Factories Act 1948, Environment (Protection) Act 1986, Legal Metrology (Packaged Commodities) Rules, Food Safety and Standards Authority of India (FSSAI) where food grade is marketed, and applicable state pollution-control board requirements.
Other Jurisdictions	Canada WHMIS 2015 / HPR: not classified as a hazardous product; bilingual label/SDS required for Canadian sale. Australia (AICS): verify inventory status before import/export. China GB/T: apply applicable SDS standard where marketed in China. TSCA (USA): verify inventory/SNUR status before US import.

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

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Version	3.0 (supersedes prior issues)
Key Sources	SPC product page; PubChem CID 5780; ECHA REACH registration dossier; USCG CHRIS database (1999); RTECS; NIOSH Pocket Guide; UN GHS Rev.11 Annex 4; OSHA HCS Appendix D; EU REACH Annex II/CLP; Canada WHMIS/HPR; CAMEO. Accessed June 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. **Supreme Petro Chemicals** shall not be liable for any loss, injury, or damage resulting from reliance on this information.

FULL TEXT OF H-STATEMENTS

- No H-statements assigned — sorbitol is not classified as hazardous under GHS / CLP / OSHA HCS based on available data.