



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)

Sodium Nitrate *SDS*

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

CAS **7631-99-4** EC **231-554-3** SIGNAL WORD **DANGER**

GHS03

Oxidizer

GHS07

Harmful / Irritant

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

Product Name	Sodium Nitrate
Product Type	Oxidising salt
Chemical Family	Inorganic nitrate
CAS No.	7631-99-4
EC No.	231-554-3
Intended Use	Industrial / professional use as listed on the SPC product page.
Restrictions on Use	Industrial / professional use only. Confirm grade suitability before regulated or consumer 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/sodium-nitrate
SDS Revision	July 2026
SDS Version	3.1

SECTION 2 HAZARD IDENTIFICATION

Ox. Sol. 3 (H272); Eye Irrit. 2 (H319). Not classified for unlisted hazard classes based on reviewed source data.

Signal Word WARNING



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GHS PictogramsGHS03 (Oxidizer) | GHS07 (Harmful / Irritant)

HAZARD STATEMENTS

- H272 — May intensify fire; oxidizer
- H319 — Causes serious eye irritation

PRECAUTIONARY — PREVENTION

- P210 — Keep away from heat, hot surfaces, sparks, open flames. No smoking.
- P233 — Keep container tightly closed.
- P260 — Do not breathe dust.
- 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+P312 — IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
- 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.
- P337+P313 — If eye irritation persists: Get medical advice/attention.
- P331 — Do NOT induce vomiting.
- P370+P378 — In case of fire: Use flooding quantities of water for extinction.
- 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
Sodium Nitrate	7631-99-4	231-554-3	100	Ox. Sol. 3 (H272); Eye Irrit. 2 (H319)

Percentages are by weight. Full text of H-statements listed in Section 16.



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SECTION 4 FIRST AID MEASURES

Inhalation	Remove person to fresh air immediately. If dust has been inhaled and symptoms (coughing, irritation) persist, seek medical attention.
Skin Contact	Remove contaminated clothing. Wash affected skin thoroughly with soap and water. Seek medical attention if irritation or symptoms persist.
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.
Ingestion	Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical advice immediately; sodium nitrate can cause methaemoglobinaemia in significant doses.
Note to Physician	Treat symptomatically based on exposure route. In case of significant ingestion, consider risk of methaemoglobinaemia; methylene blue may be indicated.

SECTION 5 FIREFIGHTING MEASURES

Suitable Extinguishing Media	Flooding quantities of water. Water is the preferred extinguishing medium; it cools the material and reduces the oxygen-releasing decomposition.
Unsuitable Media	Avoid direct high-pressure water jet where it may spread the molten or dissolved material.
Specific Hazards	Non-combustible but a strong oxidizer that can intensify the burning of other materials. At elevated temperatures (above ~380°C) decomposes releasing oxygen and nitrogen oxides (NO ₂), which are toxic. Molten sodium nitrate in contact with organic material may cause deflagration.
Protective Equipment	Wear full protective clothing and self-contained breathing apparatus (SCBA). Keep upwind.
Special Procedures	Evacuate non-essential personnel. Use copious water to keep containers cool. Prevent contaminated runoff from entering drains and waterways.



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SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid generating dust. Wear appropriate PPE (see Section 8). Keep away from combustible materials and ignition sources.
Environmental Precautions	Prevent entry into drains, sewers, soil and watercourses. Sodium nitrate is soluble and mobile in water; notify environmental authorities if a significant release reaches a waterway.
Containment / Clean-up	Sweep or vacuum into labelled, closeable containers. Avoid raising dust clouds. Do not flush to drain. Collect all material for disposal.
Reference to Sections	See Section 8 for PPE, Section 13 for disposal, and Section 15 for regulatory information.

SECTION 7 HANDLING AND STORAGE

Handling Precautions	Keep away from combustible materials, reducing agents and organic compounds. Avoid generating or breathing dust. Do not mix with incompatible substances. Use appropriate PPE.
Hygiene	Wash hands and exposed skin 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 (polyethylene or steel) in a cool, dry, well-ventilated area. Protect from moisture. Inspect containers regularly for leakage or damage.
Storage Temperature	Ambient temperature (do not exceed 50°C). Keep well below the melting point of 308°C.
Incompatible Materials	Combustible materials, reducing agents, organic compounds, sulfur, charcoal, powdered metals, strong acids. Avoid contamination with any flammable substance.
Segregation	Segregate from food, drink, animal feed, fuels, combustibles and incompatible chemicals. Store separately from flammable and reactive materials.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit	Sodium Nitrate (CAS 7631-99-4): No universally established 8h TWA OEL. Apply ALARA/good industrial hygiene. Verify local OEL (OSHA /
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	NIOSH / ACGIH / EU / India) if established. STEL: verify local ceiling value if established.
Engineering Controls	Use closed handling systems and local exhaust ventilation for dust control. Ensure adequate general ventilation. Provide emergency eyewash stations and safety showers in work areas.
Respiratory Protection	If dust levels exceed the OEL or adequate ventilation cannot be achieved, use a NIOSH/EN-approved P95 or P100 (FFP2/FFP3) particulate respirator. Use SCBA for emergency and fire situations.
Hand / Eye / Skin	Hands: chemical-resistant gloves (nitrile, neoprene or PVC; select appropriate thickness and breakthrough time). Eyes: EN 166 / ANSI Z87.1 chemical splash goggles; add face shield where splash risk exists. Skin: chemical-resistant protective clothing or apron and safety footwear.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White crystalline solid (granules or prills).
Odour	Odourless.
Odour Threshold	Not applicable (odourless solid).
pH	~6.5–8.5 (5% aqueous solution at 20°C). Verify from supplier COA for specific grade.
Melting / Freezing Point	308°C (586°F) — literature value for pure sodium nitrate.
Boiling Point / Range	~380°C (decomposes; does not boil under atmospheric pressure before decomposition).
Flash Point	Not applicable — inorganic oxidizing solid; not flammable.
Auto-ignition Temperature	Not applicable — non-combustible inorganic salt.
Flammability Limits	Not applicable — non-flammable solid; acts as oxidizer.
Vapour Pressure	Negligible at ambient temperature ($\leq 80^{\circ}\text{C}$). Not established at standard conditions.
Vapour Density (air = 1)	Not applicable (solid; negligible vapour at ambient conditions).
Relative Density	~2.26 g/cm ³ at 20°C (bulk density varies by particle size; verify from supplier specification).
Solubility in Water	~880 g/L at 20°C (highly soluble). Solubility increases markedly with temperature.
Log Pow (Partition Coeff.)	Not applicable — inorganic salt; does not partition into organic phase.
Evaporation Rate	Not applicable (solid at ambient conditions).



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Viscosity	Not applicable (solid).
VOC Content	Nil — inorganic solid; no volatile organic content.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage and handling conditions. Hygroscopic; store dry and sealed.
Conditions to Avoid	Heat above 300°C (approaches melting point), contamination with combustible or organic materials, ignition sources. Avoid mixing with reducing agents, fuels or sulfur compounds.
Incompatible Materials	Combustible materials, reducing agents (e.g. sulfur, charcoal, powdered metals), organic compounds, strong acids, aluminium and its alloys under elevated temperature. NOTE: Sodium nitrate is itself an oxidizer — incompatibilities arise from contact with oxidizable substances, not with other oxidizers per se.
Hazardous Decomposition	Above ~380°C: decomposes to sodium nitrite (NaNO_2) and oxygen. Above ~480°C: further decomposition releases nitrogen oxides (NO , NO_2) and sodium oxide. In fire: may release toxic nitrogen oxide fumes.
Hazardous Reactions	Contact with organic materials or reducing agents at elevated temperature may cause ignition or deflagration. No self-reactive decomposition under normal storage conditions.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD_{50} (rat, oral): ~3,000 mg/kg (relatively low acute oral toxicity at industrial exposure levels; significant ingestion can cause methaemoglobinaemia, nausea, vomiting, hypotension). Verify numeric endpoint from supplier/test data.
Acute Dermal Toxicity	Not expected to be acutely toxic via skin; prolonged contact may cause mild irritation. Numeric endpoint not established from reviewed data; confirm with supplier.
Acute Inhalation Toxicity	Dust/powder may irritate the respiratory tract. No specific LC_{50} value identified in reviewed public data; apply ALARA and confirm with supplier for dust-exposure scenarios.
Skin Irritation	Not classified as a skin irritant under GHS based on reviewed data. Prolonged or repeated contact may cause mild irritation; wash off



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	promptly.
Eye Irritation	Classified: Eye Irrit. 2 (H319) — Causes serious eye irritation. Dust or solution in eyes causes significant irritation.
Sensitisation	No skin or respiratory sensitisation identified in reviewed data.
Carcinogenicity	Not classified as carcinogenic. Sodium nitrate is not listed by IARC, NTP or OSHA as a carcinogen in its pure form. (Note: dietary nitrate/nitrite conversion context differs from industrial handling; no classification applies here.)
Mutagenicity	Not classified as mutagenic/genotoxic based on reviewed data. Endpoint-specific confirmation from supplier test data recommended.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	No acute or chronic aquatic classification identified in Section 2 from reviewed data. Sodium nitrate contributes to eutrophication in aquatic environments at elevated concentrations. Avoid uncontrolled release to water bodies.
Persistence / Degradability	Sodium nitrate is an inorganic salt and does not biodegrade in the conventional sense. It is persistent in aquatic and soil environments and participates in the nitrogen cycle.
Bioaccumulation	Not expected to bioaccumulate. Log Kow not applicable (inorganic salt); BCF not established.
Mobility in Soil	Highly mobile in soil due to high water solubility (~880 g/L). May leach to groundwater. Prevent release to soil and surface water.
Other Adverse Effects	Significant releases may contribute to nitrate contamination of groundwater and eutrophication of surface water. Manage releases and waste 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 into drains, watercourses or soil. Sodium nitrate is an oxidizer — do not mix with combustible waste.
Contaminated Packaging	Empty containers may retain residues and oxidizer properties; handle as hazardous until triple-rinsed or disposed of according to



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	local packaging waste regulations.
Indian Regulations	Follow applicable Hazardous Wastes (Management, Handling and Transboundary Movement) Rules under the Environment Protection Act, and SPCB/CPCB requirements. Assign waste code per actual process and local regulatory schedule.

SECTION 14 TRANSPORT INFORMATION

PARAMETER	UN / ADR (ROAD)	IMDG (SEA)	IATA (AIR)
UN Number	UN 1498	UN 1498	UN 1498
Proper Shipping Name	SODIUM NITRATE	SODIUM NITRATE	Sodium nitrate
Class	5.1 (Oxidizing substance)	5.1 (Oxidizing substance)	5.1 (Oxidizing substance)
Packing Group	III	III	III
Marine Pollutant	No	No	—
EmS / Tunnel Code	Tunnel code: E	F-A, S-Q	—

Packaging: UN-certified container appropriate to the substance (oxidizer; Class 5.1). Drums must be labelled with Class 5.1 placard, UN 1498, PG III and product name. Verify current carrier, modal and destination rules before each shipment.

SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP	Subject to REACH registration obligations where applicable. Classified and labelled according to CLP Regulation (EC) No 1272/2008 as listed in Section 2. Observe Annex II SDS requirements.
OSHA (USA)	Prepared in OSHA HCS / HazCom 2012 aligned 16-section SDS format. Verify TSCA inventory status before US import or distribution.
India	Observe applicable Indian regulations: Manufacture, Storage and Import of Hazardous Chemical (MSIHC) Rules 1989 (amended); Environment Protection Act; Hazardous Wastes Rules; SPCB/CPCB requirements; applicable workplace safety regulations.
Other Jurisdictions	China: verify GB/T SDS and classification requirements where marketed. Canada: classify/label under WHMIS 2015/HPR using Section 2 classification; bilingual SDS/label and ingredient disclosure may be required. Australia/GCC/other: check local inventory and classification requirements before export or import. Final market placement requires confirmation of inventory status, local OELs, transport class, waste code and restrictions.



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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)
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

- H272 — May intensify fire; oxidizer
- H319 — Causes serious eye irritation