



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)

Urea *SDS*

CAS **57-13-6** EC **200-315-5** SIGNAL WORD **DANGER**

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

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

Product Name	Urea
Product Type	Urea — industrial chemical
Chemical Family	Urea
CAS No.	57-13-6
EC No.	200-315-5
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/urea
SDS Revision	July 2026
SDS Version	3.1

SECTION 2 HAZARD IDENTIFICATION

Not classified as hazardous according to GHS/CLP criteria (PubChem GHS notifications; ECHA data).

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

HAZARD STATEMENTS



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

PRECAUTIONARY – PREVENTION

- P260 — Do not breathe vapours or spray.
- 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+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.
- P312 — Call a POISON CENTER or doctor if you feel unwell.
- P331 — Do NOT induce vomiting.
- 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
Urea	57-13-6	200-315-5	100	Not classified as hazardous (GHS/CLP/PubChem GHS notifications)

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



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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 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 medical attention.
Ingestion	Rinse mouth. Do not induce vomiting unless directed by medical personnel. Seek medical advice. Urea is low-toxicity at normal doses; high doses may cause nausea.
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 powder, carbon dioxide (CO ₂), foam — appropriate to surrounding fire. Urea itself is not flammable but will decompose on heating.
Unsuitable Media	Direct high-pressure water jet where it may spread material or create hazardous run-off.
Specific Hazards	Urea is not flammable. On strong heating or fire, decomposes releasing ammonia, carbon dioxide, and nitrogen oxides — toxic and irritating fumes. Dust or fine particulate may form irritating atmospheres. Containers may rupture when heated.
Protective Equipment	Wear full protective clothing and self-contained breathing apparatus (SCBA). Prevent contaminated run-off from entering drains and waterways.
Special Procedures	Evacuate non-essential personnel. Use water to cool containers exposed to fire. Prevent contaminated firefighting water from entering drains or watercourses.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Isolate spill area. Avoid generating dust. Wear PPE as specified in Section 8. Keep unnecessary personnel away.
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Environmental Precautions	Prevent entry into drains, sewers, soil and watercourses. Urea is highly water-soluble and can promote algal growth in water bodies (eutrophication risk).
Containment / Clean-up	Collect spilled solid into labelled, compatible containers using non-sparking tools. Avoid generating airborne dust. Dispose of collected material through an approved waste contractor. Flush small spills with large quantities of water if disposal permits.
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	Use adequate ventilation to control dust. Avoid inhalation of dust and contact with skin, eyes and clothing. Keep container tightly closed when not in use.
Hygiene	Wash hands after handling. Remove contaminated clothing before reuse. Do not eat, drink or smoke when using.
Storage Conditions	Store in original, tightly closed compatible containers in a cool, dry, well-ventilated area away from moisture. Inspect containers regularly for leakage or damage.
Storage Temperature	Ambient temperature (preferably < 30°C). Avoid humidity — urea is hygroscopic and will cake on moisture absorption.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides). Concentrated acids and halogens. Aluminium chloride at elevated temperature. Nitrites (can form potentially explosive mixtures at elevated temperature).
Segregation	Segregate from food, drink, animal feed and incompatible chemicals.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limit	Urea (CAS 57-13-6): No established OSHA PEL or ACGIH TLV as a specific regulated substance. Apply ALARA / good industrial hygiene. Confirm regional OEL with local authority (OSHA/NIOSH/ACGIH/EU/UK/India). STEL/ceiling — use verified local value if established.
Engineering Controls	Use local exhaust ventilation (LEV) or enclosed handling to control dust generation. General dilution ventilation is acceptable for low-



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	dust tasks. Provide eyewash and safety shower where dust or solution handling occurs.
Respiratory Protection	If dust is generated above OEL or ventilation is inadequate, use a NIOSH/EN approved P95/P100 or FFP2 particulate respirator. Use SCBA for emergency situations.
Hand / Eye / Skin	Gloves: chemical-resistant (nitrile, PVC, or neoprene). Eye/face: splash-proof goggles (EN 166 / ANSI Z87.1); add face shield where dust or solution splash risk exists. Body: chemical-resistant clothing and safety footwear. Hygiene measures: provide eyewash; wash after handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White crystalline solid — pellets, prills, granules, or powder (NTP, 1992; PubChem)
Odour	Odourless; may gradually develop a slight odour of ammonia, especially in the presence of moisture.
Odour Threshold	Not established in reviewed public source data.
pH	Approximately 7.2 (10% w/v aqueous solution at 20°C). Verify from supplier COA/SDS for grade-specific value.
Melting / Freezing Point	132–135°C (270–275°F) (NTP, 1992) — decomposes near and above melting point.
Boiling Point / Range	Decomposes above melting point; does not have a conventional boiling point (NTP, 1992).
Flash Point	Not applicable — Urea is a non-flammable solid (USCG, 1999).
Auto-ignition Temperature	Not established from reviewed public sources; not flammable under normal conditions.
Flammability Limits	Not flammable — upper and lower limits not applicable.
Vapour Pressure	0.000012 mmHg at ambient temperature (PubChem experimental).
Vapour Density (air = 1)	See PubChem experimental properties; effectively not relevant for solid form.
Relative Density	1.32 g/cm ³ at 20°C (solid) — confirm from supplier SDS / COA.
Solubility in Water	Very soluble: ~108 g/100 mL at 20°C (NTP, 1992; PubChem). Also soluble in ethanol.
Log Pow (Partition Coeff.)	–2.11 (PubChem peer-reviewed; range –3.00 to –1.54 across sources). Confirms low bioaccumulation potential.
Evaporation Rate	Not applicable — solid form; negligible vapour pressure.



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Viscosity	1.78 mPa·s (46% aqueous solution at 20°C); 1.90 mPa·s (saturated solution at 20°C); 1.81 mPa·s at 137°C (PubChem experimental).
VOC Content	Not applicable — solid; not a VOC-regulated substance. Assess per applicable regional VOC regulations if used in aqueous solution form.

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability	Stable under recommended storage and handling conditions (cool, dry, away from moisture and incompatible materials).
Conditions to Avoid	Heat above 132°C (melting/decomposition onset), moisture/humidity (causes caking and hydrolysis to ammonia), ignition sources near decomposition products.
Incompatible Materials	Strong oxidising agents (nitric acid, chlorine, permanganates, peroxides). Concentrated acids and halogens. Aluminium chloride (AlCl ₃) at elevated temperature — not a concern in ambient blending or storage. Nitrites at elevated temperature.
Hazardous Decomposition	Thermal decomposition yields: ammonia (NH ₃), carbon dioxide (CO ₂), nitrogen oxides (NO _x), isocyanic acid (HNCO), and biuret. These are toxic/irritating gases and fumes.
Hazardous Reactions	No hazardous reactions under normal storage and handling. Urea can hydrolyse slowly in the presence of water/moisture producing ammonia — ventilate storage areas.

SECTION 11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity	LD50 (rat, oral): approximately 8,471 mg/kg (ECHA/RTECS). Very low acute oral toxicity. Not classified.
Acute Dermal Toxicity	Not classified. No significant dermal toxicity reported at normal industrial exposure levels. Prolonged contact may cause mild irritation.
Acute Inhalation Toxicity	Not classified. Dust inhalation may cause mild respiratory irritation. No LC50 data indicating acute inhalation hazard classification.
Skin Irritation	Not classified as a skin irritant under GHS. Prolonged or repeated contact may cause mild mechanical irritation from dust.
Eye Irritation	Not classified as a serious eye irritant. Dust or concentrated solutions may cause transient irritation. Rinse with water.



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Sensitisation	Not classified as a skin or respiratory sensitiser. No evidence of allergic sensitisation in available reviewed data.
Carcinogenicity	Not classified as a carcinogen by IARC, OSHA, NTP, or ACGIH. No evidence of carcinogenicity in humans or animals at relevant exposures.
Mutagenicity	Not classified as a mutagen. No evidence of genotoxicity in standard Ames test / in vitro assays. Negative in reviewed mutagenicity studies.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic Toxicity	Not classified as acutely or chronically hazardous to the aquatic environment under GHS. However, urea is a nutrient and its release to water bodies can contribute to eutrophication. Avoid uncontrolled environmental release. EC50 (algae): confirm from ECHA/PubChem ecotoxicity data for specific registration requirements.
Persistence / Degradability	Readily biodegradable — urea is rapidly hydrolysed to ammonia and CO ₂ by soil and aquatic urease enzymes. Not persistent in the environment.
Bioaccumulation	Low bioaccumulation potential — Log Kow = -2.11 indicates urea does not bioaccumulate in organisms.
Mobility in Soil	Highly mobile in soil due to high water solubility and low adsorption to soil particles. Risk of leaching to groundwater under heavy rainfall or irrigation.
Other Adverse Effects	Avoid uncontrolled release to the environment. Urea can increase ammonia levels in aquatic systems on hydrolysis, potentially harmful to fish and aquatic organisms at elevated concentrations. 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, state, and national regulations. Small quantities may be dissolved in water and disposed of via authorised drain if permitted by local authority.
Contaminated Packaging	Empty containers may retain residues; handle as potentially contaminated until cleaned or disposed. Return to supplier or



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dispose through authorised waste contractor.

Indian Regulations

Follow applicable Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (MoEFCC), CPCB/SPCB requirements, and local pollution control authority directions. Assign waste code according to actual process and local regulation.

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
Marine Pollutant	No	No	—

Urea (CAS 57-13-6) has no UN transport number and is not regulated as a dangerous good under ADR, IMDG, or IATA DGR in solid form. No UN transport entry found in PubChem transport data. Use approved compatible containers (UN-certified drum for international shipments). Label with product name. Verify current carrier rules before shipment — regulations may differ for aqueous solutions or fertiliser-grade material in specific jurisdictions.

SECTION 15 REGULATORY INFORMATION

EU / REACH / CLP

Urea (CAS 57-13-6) is on the REACH substance inventory. Not classified as hazardous under CLP Regulation (EC) No. 1272/2008 based on available notifications. Observe all applicable REACH and CLP requirements where EU marketing applies. Classified and labelled in accordance with the product-specific GHS/CLP classification listed in Section 2.

OSHA (USA)

Prepared in OSHA HCS/HazCom 2012 aligned 16-section SDS format. Urea is listed on the TSCA Chemical Substance Inventory. Verify TSCA SNUR status before US import or distribution. No OSHA PEL established; apply ACGIH TLV or ALARA.

India

Observe applicable MSIHC Rules 1989 (amended), Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016, Environment Protection Act 1986, Factories Act 1948, and applicable CPCB/SPCB, storage, transport, pollution-control and hazardous-waste requirements. Urea is a widely used



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industrial/agricultural chemical; comply with Fertiliser Control Order if applicable.

Canada WHMIS / HPR	Classify and label under WHMIS 2015/HPR using Section 2 classification. Canadian sale may require bilingual SDS/label and ingredient disclosure.
China (GB Standards)	Apply applicable GB/T SDS and GHS classification requirements where marketed in China.
Middle East / GCC	Observe applicable GHS-aligned local requirements.
Australia (AICS)	Check Australian Inventory of Industrial Chemicals (AIIC) status before export or import.
Other Jurisdictions	Final market placement requires confirmation of inventory status, local OELs, transport class, waste code, and restrictions. Regulatory scope is limited to the classification stated in Section 2; jurisdiction-specific confirmation is the user's responsibility.

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 Sources	SPC product page; original SPC SDS template; consolidated SDS audit CSV; UN GHS Rev.11 Annex 4; OSHA HCS Appendix D; EU REACH Annex II/CLP; Canada WHMIS/HPR; PubChem, ECHA, NIOSH/OSHA, CAMEO and public supplier SDS/transport references. Accessed May–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 — Urea (CAS 57-13-6) is not classified as hazardous under GHS/CLP based on reviewed PubChem GHS notifications and ECHA data.