

ZEELCHEM™ 131 — DTPMP

DTPMP — Diethylene Triamine Penta (Methylene Phosphonic Acid)

Safety Data Sheet · GHS Rev.10 · MSIHC Sch. 9 · REACH Annex II · Revision 00 · Date of issue 19-10-2026

ISO 9001:2015 · ISO 22000:2018 · ISO 14001:2015 CERTIFIED MANUFACTURER · MADE IN INDIA


Signal word: DANGER
GHS classification: Corrosive to Metals, Category 1 (H290); Skin Corrosion, Category 1B (H314); Serious Eye Damage, Category 1 (included in H314)

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

Product identifier	ZEELCHEM™ 131 DTPMP
Chemical name	DTPMP — Diethylene Triamine Penta (Methylene Phosphonic Acid)
CAS No.	15827-60-8
Recommended use	Scale inhibitor / dispersant / chelating agent for industrial water treatment and process applications
Uses advised against	Uses other than those recommended; not for direct food or drinking-water addition unless approved by the user's competent authority.
Manufacturer / supplier	ZEEL PRODUCT, A-23, Reva Duplex, Behind Bharat Petrol Pump, Ankhol, New Waghodia Road, Vadodara – 390019, Gujarat, India
Telephone / e-mail	+91-9724593964 · zeelproduct@gmail.com
Emergency telephone	+91-9724593964 (office hours, IST). India emergency: 112. National Poisons Information Centre (AIIMS, New Delhi): 1800-116-117.

SECTION 2 HAZARD(S) IDENTIFICATION

GHS classification	Corrosive to Metals, Category 1 (H290); Skin Corrosion, Category 1B (H314); Serious Eye Damage, Category 1 (included in H314)
Signal word	Danger
Hazard statements	H290: May be corrosive to metals. H314: Causes severe skin burns and eye damage.


Signal word: DANGER

Precautionary statements:

- P234: Keep only in original packaging.
- P260: Do not breathe mist or spray.
- P264: Wash hands and exposed skin thoroughly after handling.
- P280: Wear protective gloves, protective clothing, eye protection and face protection.

- P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTRE or doctor.
- P390: Absorb spillage to prevent material damage.
- P405: Store locked up.
- P406: Store in a corrosion-resistant container with a resistant inner liner.
- P501: Dispose of contents/container in accordance with local, state and national regulations.

Other hazards: None known. Not a PBT/vPvB substance. Contact with metals may release flammable hydrogen gas.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	EC No.	Conc. (% w/w)
Diethylene triamine penta(methylene phosphonic acid) (DTPMP)	15827-60-8	239-931-4	≥ 50.0
Process chloride (as Cl ⁻)	—	—	12.0 – 17.0
Water	7732-18-5	231-791-2	Balance

SECTION 4 FIRST-AID MEASURES

Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms persist.
Skin contact	Remove contaminated clothing immediately. Rinse skin with plenty of water for at least 15 minutes. Get medical attention immediately.
Eye contact	Rinse immediately with plenty of water for at least 15 minutes, holding eyelids apart. Remove contact lenses if easy to do. Get medical attention immediately.
Ingestion	Rinse mouth with water. Do NOT induce vomiting. Give 1–2 glasses of water to drink if conscious. Get medical attention immediately.
Most important symptoms	Burns, pain, redness; risk of serious eye damage.
Notes to physician	Treat symptomatically. Acidic, corrosive product.

SECTION 5 FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical, carbon dioxide; use media suitable for surrounding fire.
Unsuitable media	None known.
Specific hazards	Aqueous solution – non-combustible. On drying and in a fire, may decompose to oxides of phosphorus, oxides of nitrogen, hydrogen chloride, carbon monoxide, carbon dioxide. Contact with metals may release hydrogen.

Protective equipment	Self-contained breathing apparatus and full protective clothing. Cool containers with water spray.
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SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions	Wear protective equipment (Section 8). Keep unprotected persons away. Avoid contact with skin and eyes.
Environmental precautions	Prevent entry into drains, surface water and soil. Inform authorities if large spills enter water courses.
Containment and clean-up	Contain with inert absorbent (sand, earth, vermiculite). Neutralise residues with sodium carbonate or lime. Collect in suitable labelled containers for disposal. Flush area with water.

SECTION 7 HANDLING AND STORAGE

Safe handling	Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke at work. Provide eyewash and safety shower near the work area. When diluting, add product to water, not water to product.
Storage conditions	Store in original closed HDPE / stainless-steel containers in a cool, dry, well-ventilated and shaded area away from strong alkalis and oxidisers. Avoid freezing and prolonged direct sunlight. Shelf life: 12 months in unopened packing.
Suitable materials	HDPE, polypropylene, FRP, stainless steel 316. Do not use mild steel, galvanised steel, aluminium or copper.
Incompatible materials	Strong bases, strong oxidising agents, mild steel, galvanised steel, aluminium, copper and their alloys (hydrogen gas may be released).

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits	No exposure limits established for this product under the Factories Act 1948 (Second Schedule), ACGIH TLV, OSHA PEL or EU IOELV.
Engineering controls	Good general ventilation; local exhaust where mists are generated.
Eye / face protection	Chemical safety goggles (EN 166 / ANSI Z87.1 / IS 5983) and face shield.
Hand protection	Chemical-resistant gloves – nitrile, neoprene or PVC (EN ISO 374).
Body protection	Chemical-resistant apron or suit and safety footwear (acid-resistant).
Respiratory protection	Not normally required. If mists are formed, use a respirator with combined particle/acid-gas filter (EN 14387 type E-P2 or NIOSH approved).

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state / appearance	Amber to brown transparent liquid
Odour	Odourless to faint characteristic odour

pH	≤ 2.0
Density / relative density	≥ 1.35 g/cm ³
Melting / freezing point	Approx. 0 °C (aqueous solution)
Initial boiling point	> 100 °C (water evaporates)
Flash point	Not applicable – aqueous, non-flammable
Flammability	Non-flammable
Solubility in water	Completely miscible
Partition coefficient (log K_{ow})	< 0 (estimated)
Auto-ignition temperature	Not applicable
Explosive / oxidising properties	Not explosive; not oxidising
Active / solid content	≥ 50.0 %

SECTION 10 STABILITY AND REACTIVITY

Reactivity	Reacts with bases (exothermic) and corrodes many metals.
Chemical stability	Stable under recommended storage and handling conditions.
Possible hazardous reactions	Contact with reactive metals may release hydrogen gas.
Conditions to avoid	Freezing, prolonged direct sunlight, temperatures above 50 °C.
Incompatible materials	Strong bases, strong oxidising agents, mild steel, galvanised steel, aluminium, copper and their alloys (hydrogen gas may be released).
Hazardous decomposition products	Oxides of phosphorus, oxides of nitrogen, hydrogen chloride, carbon monoxide, carbon dioxide (in fire or on heating to dryness).

SECTION 11 TOXICOLOGICAL INFORMATION

Acute oral toxicity	Not classified. Based on available data for the active substance, classification criteria are not met.
Acute dermal toxicity	Not classified.
Skin corrosion / irritation	Causes severe skin burns (strongly acidic, pH ≤ 2).
Serious eye damage / irritation	Causes serious eye damage.
Respiratory or skin sensitisation	Not classified.
Germ cell mutagenicity	Not classified.
Carcinogenicity	Not classified. Not listed by IARC, NTP or OSHA.

Reproductive toxicity	Not classified.
STOT – single / repeated exposure	Not classified.
Aspiration hazard	Not applicable.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity	Phosphonates show low to moderate toxicity to aquatic organisms; effects on algae may be caused by complexation of trace nutrients. Neutralise before release.
Persistence and degradability	Not readily biodegradable. Strongly adsorbs to sediments and sludge; slow photodegradation and degradation in presence of metal ions.
Bioaccumulative potential	Low (log Kow < 0).
Mobility in soil	Low mobility due to strong adsorption to soil minerals.
PBT / vPvB assessment	Not considered PBT or vPvB.

SECTION 13 DISPOSAL CONSIDERATIONS

Product	Neutralise and dispose of through an authorised facility in accordance with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (India) and local regulations. Do not discharge undiluted to drains.
Packaging	Rinse empty containers with water (use rinse water as product dilution where possible). Recycle or dispose of through an authorised recycler.

SECTION 14 TRANSPORT INFORMATION

Item	Road (ADR / India CMVR) · Sea (IMDG) · Air (IATA)
UN number	UN 3265
UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (contains DTPMP)
Transport hazard class	8
Packing group	III
Environmental hazards	Not a marine pollutant
Special precautions	Keep upright; segregate from alkalis. India road transport: Central Motor Vehicles Rules 1989 (Rules 129–137) – TREM card required.

SECTION 15 REGULATORY INFORMATION

India	Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (as amended) – SDS format per Schedule 9; Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996; Factories Act, 1948; Hazardous and Other Wastes Rules, 2016; Central Motor Vehicles Rules, 1989.
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Global GHS	Classified and labelled according to the UN Globally Harmonized System (GHS), Revision 10.
European Union	Regulation (EC) No 1907/2006 (REACH), Annex II as amended by (EU) 2020/878; Regulation (EC) No 1272/2008 (CLP).
USA	OSHA Hazard Communication Standard 29 CFR 1910.1200 (HCS 2012/2024).
Chemical inventories	Users should confirm inventory status (e.g. TSCA, REACH, IECSC, AICIS, KECI, CSCL) for their country before import.

SECTION 16 OTHER INFORMATION

Document no. / revision	ZP/SDS/131/R00
Date of issue	19-10-2026
Next review	18-10-2029
Prepared by	Quality Assurance & Regulatory, ZEEL PRODUCT
Abbreviations	GHS – Globally Harmonized System; CAS – Chemical Abstracts Service; EC – European Community number; PBT – persistent, bioaccumulative, toxic; ADR/IMDG/IATA – road/sea/air dangerous-goods codes; TREM – transport emergency card.

This SDS was prepared in good faith on the basis of our present knowledge. It describes the product for safety purposes only and does not guarantee specific properties. The user is responsible for safe handling and for compliance with all applicable laws.