

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION:

Product Name: DTPMP, Diethylenetriamine penta(methylene phosphonic acid)
PRODUCT USE: Water Treatment Application Formulation
Personal Protection Equipment:



ZEEL PRODUCT
Vadodara-Gujarat-India
Emergency Number: +91-9723859512
Email: zeelproduct@gmail.com
Website: www.zeelproductonline.co.in

SECTION 2: HAZARDS IDENTIFICATION

Prevention Precautionary Statements
P234: Keep only in original container.
P260: Do not breathe.
P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/eye protection/face protection.
P273: Avoid release to the environment.
Response Precautionary Statements
P301+330+331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: 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 CENTER or doctor/physician
RESPONSE: See section 4: FIRST AID MEASURES. Also, see below:
• Do not handle until all safety precautions have been read and understood.
• Wear gloves, eye protection and face protection (as needed to prevent skin and eye contact
Wash hands or liquid-contacted skin thoroughly after handling.
• Do not eat, drink or smoke when using this product.
STORAGE: Store in a well ventilated place. Keep cool. Store locked up. Keep container tightly closed.
Use only approved containers.
DISPOSAL: Dispose of contents/containers to approved disposal site in accordance with local, regional, and/or international regulations.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS No.	WEIGHT %
Diethylenetriaminepenta(methylene phosphonic acid)	2809-21-4	50%
Water	7732-18-5	Balance
Hydrogen Chloride	7647-01-0	15%

DTPMP
MATERIAL SAFETY DATA SHEET

SECTION 4: FIRST-AID MEASURES

Inhalation: When safe to enter area, remove from exposure. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if needed. Get medical attention.

Skin Contact: Remove contaminated clothing, jewelry and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15 – 20 minutes). Get medical attention, if needed.

Eye Contact: Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Get medical attention immediately.

Ingestion: Never make an unconscious person vomit or drink fluids. Give water or milk. If vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately.

SECTION 5: FIRE-FIGHTING MEASURES

Fire And Explosion Hazard: Slight fire hazard. Dust/air mixtures may ignite or explode.

Extinguishing Media: Regular dry chemical, carbon dioxide, water, and regular foam.

Large fires: Use regular foam or flood with fine water spray.

Fire Fighting: Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Use extinguishing agents appropriate for surrounding fire. Do not get water directly on material.

Large Fires: Flood with fine water spray. Reduce vapors with water spray. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Occupational Spill: Do not touch spilled material. Stop leak if possible without personal risk.

Small Spills: Absorb with sand or other non-combustible material. Collect spilled material in appropriate container for disposal.

Small Dry Spills: Move containers away from spill to a safe area.

Large Spills: Dike for later disposal. Keep unnecessary people away, isolate hazard area and deny entry.

SECTION 7: HANDLING AND STORAGE

Handling: Do not get into eyes, on skin, or on clothing. Avoid breathing vapor or mist. Keep container

closed. Use with adequate ventilation. Wash thoroughly after handling.

Storage: Store in cool, dry, well ventilated area above OoC. Product is stable under normal conditions of handling and storage.

Safety Data Sheet

24 hour Emergency Response No. +91-9723859512

Emptied containers retain vapor and product residue. Observe all recommended safety precautions until

container is cleaned, reconditioned, or destroyed. The reuse of this material's container for nonindustrial purposes is prohibited and any reuse must be in consideration of the data provided in this material safety data sheet.

Suitable Materials Of Construction: Glass lining, PVC, polypropylene, glass reinforced plastic, and polyethylene.

Unsuitable Materials Of Construction: Mild steel, carbon steel, aluminum, and other metals.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION EQUIPMENT (PPE)

Exposure limit(s): Exposure limits are listed below, if they exist.

Exposure Limits: No occupational exposure limits established.

Ventilation: Provide local exhaust ventilation system. Ventilation equipment should be explosionresistant if explosive concentrations of material are present. Ensure compliance with applicable exposure limits.

Eye Protection: Wear splash resistant safety goggles. Provide an emergency eye wash fountain and

quick drench shower in the immediate work area.

Clothing: Wear appropriate chemical resistant clothing.

Protective Material Types: Rubber

Respirator: Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

Respiratory protection is ranked in order from minimum to maximum. Consider warning properties

before use. Any dust, mist and fume respirator. Any air-purifying respirator with a high-efficiency

particulate filter. Any powered, air purifying respirator with a dust, mist and fume filter. Any powered,

air-purifying respirator with a high-efficiency particulate filter.

For unknown concentrations or immediately dangerous to life or health: Any supplied-air respirator

with full face-piece and operated in a pressure-demand or other positive-pressure mode in combination

with a separate escape supply, or any self-contained breathing apparatus with a full face-piece.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: Amber Color to Brown Liquid

Odor: Characteristic

Molecular Formula: C₉H₂₈N₃O₁₅P₅

Boiling Point: 226oF, 108oC

Melting point: < 34o F, < 1o C

Specific gravity: 1.35 - 1.42

pH : 2.0

Vapor Pressure: 23.8 @ 77o F

Vapor Density: 0.8

Decomposition Temperature: Unknown

Evaporation Rate: 1 (N-Butyl Acetate = 12)

Water solubility: Complete

Viscosity: Unknown

Corrosion Rate (MPY): Unknown

NOTE: the physical data above are typical values and should not be construed as a specification

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable at normal temperature and pressure.

Conditions To Avoid: Avoid heat, flames, sparks and other sources of ignition. Dangerous gases may

accumulate in confined spaces. May ignite or explode on contact with combustible materials.

Incompatibilities: Bases, amines, metals, reducing agents, oxidizing materials.

Alkalis: Violent reaction

Amines: Incompatible

Metals: May be corrosive in the presence of moisture

Metal salts of sulfides: May release toxic gases

- Oxidizers: Fire and explosion hazard.

- Sulfites: May release toxic gases

SECTION II: TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

Epidemiology: No data available.

Teratogenicity: No data available.

Irritation or Corrosion:

DETA/DTPMP: Diethylenetriamine penta(methylene phosphonic acid) 15827-60-8

Acute toxicity :

LC50, Inhalation, Mouse, 1108. PPM, 1 Hr

TCLO, Inhalation, Rat, 685.0 UG/M3, 24 D .

Acute toxicity, LCLO, Inhalation, Human, 1 300. PPM, 30 M.

Acute toxicity, LDLO, Route of Application: Unreported., Hu man, 81.00 MG/KG.

Eyes, Species: Rabbit, 5.000 MG, 30 S.

Hydrogen Chloride 7647-01-0

LC50 Inhalation, Rat, 3124 PPM 1Hr

HEALTH EFFECTS:-

INHALATION:

Acute Exposure: Aqueous solutions have been reported to be corrosive to all mucous membranes.

Chronic Exposure: No data available.

Skin Contact: Acute Exposure: Aqueous solutions may cause burning and itching.

Chronic Exposure: Repeated or prolonged exposure to irritants may cause dermatitis.

Eye Contact: Acute Exposure: Aqueous solutions may cause burning and itching.

Chronic Exposure: Repeated or prolonged exposure to irritants may cause conjunctivitis.

Ingestion: Acute Exposure: Aqueous solutions have been reported to be corrosive to all mucous membranes.

SECTION I2: ECOLOGICAL INFORMATION

ENVIRONMENTAL TOXICITY:-

DETA/DTPMP: Diethylenetriaminepenta(methylene phosphonic acid) 15827-60-8

Invertebrates: 48 h, EC50 Water flea (Daphnia magna) 9.9 mg/l

Fish: 7 days, LC50 Rainbow trout (Oncorhynchus mykiss) 262mg/l

Algae: 72 h, EC50 Algae (Selenastrum capricornutum) <100 mg/l

Biodegradation: Not available

Hydrogen chloride 7647-01-0:

Invertebrates: 48 h, EC50 Water flea (Daphnia magna) 0.45 mg/l

Fish: 7 days, LC50 Rainbow trout (Oncorhynchus mykiss) 3 mg/l

Algae: 72 h, EC50 Algae (Selenastrum capricornutum) 0.73 mg/l

Biodegradation: Not available

ENVIRONMENTAL FATE:-

Results of PBT and vPvB assessment: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very

bioaccumulative (vPvB) at levels of 0.1% or higher.

Persistence and degradability: The total of the organic components contained in the product is not classified as "readily biodegradable" (OECD-301 A-F). However, this product is expected to be inherently biodegradable.

Bio-accumulative potential: There is no evidence to suggest bioaccumulation will occur.

Mobility in soil: Accidental spillage may lead to penetration in the soil and groundwater. However, there

is no evidence that this would cause adverse ecological effects.

Other adverse effects: Do not empty into drains. Not readily biod

SECTION I3: DISPOSAL

Environmental precautions: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Disposal/Waste Classification: When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR261.33. The toxicity characteristic (TC), however, has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).

For disposal, incinerate or landfill at a permitted facility in accordance with local, state, and

SECTION 14: TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s. (Phosphonic acid, Hydrochloric acid)

Hazard Class: 8, Packing Group: II

UN/NA: UN3265

INTERNATIONAL (WATER, I.M.O.)

Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s. (Phosphonic acid, Hydrochloric acid), DTPMP

Hazard Class: 8, Packing Group: II

UN/NA: UN3265

SECTION 15: REGULATORY INFORMATION

The following statutes, regulations and standards have the related prescribes on chemicals in terms of

safe use, storage, transportation, loading and unloading, classification and symbol S, etc.

- Provisions on the Environmental Administration of New Chemical Substances.
- The Regulation on Chemicals Safe Use at Working Site
- Law on Prevention and Control of Environmental Pollution Caused by Solid Waste.
- Occupational Exposure Limits for Hazardous Agent in The workshop Chemical Hazardous Agents (GBZ 2.1).

TSCA Status: Y

TSCA 12(b) export notification: Not listed

CERCLA Section 103 (40 CFR 302.4): N

SARA Section 302 (40 CFR 355.30): N TPQ

SARA Section 304 (40 CFR 355.40): N RQ

SARA Section 313 (40 CFR 372.65): N

California Prop 65 Status: N

SARA Acute Hazard: Y

SARA Chronic Hazard: N

SARA Fire Hazard: N

SARA Reactivity Hazard: N

SARA Sudden Release Hazard: N

WHMIS Classification: N

INTERNATIONAL REGULATIONS:

EU Risk and Safety Phrases:

R: 22-36-38 Harmful if swallowed. Irritating to eyes. Irritating to skin

S: 2-13-24-25-26-36-46

SECTION 16: OTHER INFORMATION

Further information: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Author: Mitesh Patel