

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Diethylenetriaminepenta(methylenephosphonic acid)

Synonyms: Diethylenetriaminepenta(methylene-phosphonic acid); DTPMP; Phosphonic acid,

[[[(phosphonomethyl)imino] bis[2,1-ethanediylnitrilobis (methylene)]] tetrakis-;

[[[(phosphonomethyl)imino] bis[ethane-2,1- diylNitrilobis(methylene)]]tetrakisphosphonic acid;

Catalog Numbers: HC-405

Company Identification :

Changzhou Wujin Hongguang Chemical Corp.

Hengshanqiao Twon, Changzhou ,

Jiangsu,China.

Zip: 213119

Tel: 86-591-860-1388

Fax: 86-591-860-3588

Website: <http://www.hgchem.com>

2. COMPOSITION, INFORMATION ON INGREDIENTS

CAS#	Chemical Name	%	EINECS#
15827-60-8	Diethylenetriaminepenta (methylenephosphonic acid)	50	239-931-4
7647-01-0	hydrogen chloride	14-17	

Hazard Symbols: C

Risk Phrases: 10 35

3. HAZARDS IDENTIFICATION

Emergency Overview

Harmful in contact with skin and if swallowed or splashed into the eyes. Causes burns.

Potential Health Effects

Eye: Irritating to eyes.

Skin: Irritating to skin. No more than slightly toxic if absorbed.

Ingestion: May be harmful if swallowed.

Inhalation: Severely irritating if inhaled. No more than slightly toxic if inhaled.

Chronic: Not available.

4. FIRST AID MEASURES

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of soap and water for

at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

5. FIRE FIGHTING MEASURES

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

Flash point: Non flammable aqueous solution

Hazardous products of combustion: carbon monoxide (CO); carbon dioxide; nitrogen oxides (NOx); phosphorus oxides (PxOy); phosphines

Extinguishing media: Water spray, foam, dry chemical, or carbon dioxide

Unusual fire and explosion hazards: Decomposes in a fire giving off irritant fumes.

6. ACCIDENTAL RELEASE MEASURES

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Neutralize washings with soda ash or lime. Flush spill area with water.

7. HANDLING and STORAGE

Handling: Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.

Storage: Keep in a cool, dry, well ventilated place. Stable under normal conditions of handling and storage.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Personal Protective Equipment

Eyes: Wear chemical goggles.

Skin: Wear appropriate protective gloves and clothing to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin

Respirators: Wear a NIOSH/MSHA or European Standard EN 149 approved full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: liquid

Appearance: dark to amber

Odor: pungent

pH: 2.0 (1% aq.sol)

Vapor Pressure: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.
Autoignition Temperature: Not available.
Flash Point: Not available.
Explosion Limits, lower: Not available.
Explosion Limits, upper: Not available.
Decomposition Temperature: Not available.
Solubility in water: Soluble.
Specific Gravity/Density: 1.40 g/ml, 20 deg C
Molecular Formula: C₉H₂₈N₃O₁₅P₅
Molecular Weight: 573

10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Strong oxidizing agents, bases.

Hazardous Decomposition Products: carbon monoxide (CO); carbon dioxide; nitrogen oxides (NO_x); phosphorus oxides (P_xO_y); phosphines

Hazardous Polymerization: Has not been reported.

11. TOXICOLOGICAL INFORMATION

LD50/LC50:

Skin, rabbit LD50 > 7980 mg/kg;

Oral, rat: LD50 = 7180 mg/kg.

Carcinogenicity:

Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA. See actual entry in RTECS for complete information.

12. ECOLOGICAL INFORMATION

Environmental Toxicity:

Invertebrates :48 h, EC50 Water flea (*Daphnia magna*) 242 mg/l;

Fish: 96 h, LC50 Rainbow trout (*Oncorhynchus mykiss*) > 180 mg/l;

Algae: 96 h, EC50 Algae (*Selenastrum capricornutum*) 2 mg/l.

Biodegradation:

Modified SCAS (OECD 303A) Primary degradation 2.2 %;

River Die-Away theoretical CO₂ evolution 11.15 % 60 d.

13. DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

14. TRANSPORT INFORMATION

IATA

Shipping Name: CORROSIVE LIQUID, N.O.S.*

Hazard Class: 8

UN Number: 1760

Packing Group: III

IMO

Shipping Name: CORROSIVE LIQUID, N.O.S.

Hazard Class: 8

UN Number: 1760

Packing Group: III

RID/ADR

Shipping Name: CORROSIVE LIQUID, N.O.S.

Hazard Class: 8

UN Number: 1760

Packing Group: III

15. REGULATORY INFORMATION

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C Corrosive

Risk Phrases:

R10 Flammable.

R35 Causes severe burns.

Safety Phrases: 9/16/23/26/28A/33/36

S9 Keep container in a well-ventilated place.

S16 Keep away from sources of ignition.

S23 Do not breathe vapour

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with plenty of soap-suds.

S33 Take precautionary measures against static discharges.

S36 Wear suitable protective clothing.

US FEDERAL

TSCA: All components are listed on the TSCA inventory.

16. ADDITIONAL INFORMATION

Date Issued: 05/20/2003

Revision No: 1

Date Revised: 05/20/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use.

Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.