MD-PEI Polyethylenimine

SAFETY DATA SHEET

Document No.	Version	Issue date	Revision date
MD-PEI-SDS-EN	V2.0	2019-01-04	2026-02-11

01 Identification

Item	Information
Product name	MD-PEI Polyethylenimine
Other name	Polyethylenimine (PEI)
CAS number	9002-98-6
EC number	618-346-1
Molecular formula	(C2H5N)n
Molecular weight	600-100,000 g/mol, multiple grades
Recommended uses	Wet-strength improvement in paper; Adhesion promoter, crosslinker and modifier; Dispersant for coatings and inks; Flocculant and adsorbent for water treatment; CO2 and acid-gas capture on porous supports; Personal-care conditioning, biotechnology transfection and petroleum demulsification
Supplier	Meridian Chemical Solutions LLC
Address	[Company address]
Telephone	[Telephone number]
Email	[Email address]
Emergency telephone	[Emergency telephone number]

02 Hazard identification

Signal word and classification: Warning, inferred from the source classifications. Confirm before issue.

Code	Hazard statement	Category
H302	Harmful if swallowed	Category 4
H319	Causes serious eye irritation	Category 2A
H411	Toxic to aquatic life with long-lasting effects	Category 2

Precautions: Use local exhaust ventilation. Avoid breathing vapor, mist or dust. Wear protective gloves, protective clothing and eye protection. Wash thoroughly after handling. Keep the product out of drains, soil and surface water.

03 Composition and information on ingredients

Polymer available in multiple molecular-weight grades. Main component: HD-105-PEI Polyethylenimine. CAS: 9002-98-6.

04 First aid measures

Exposure	Measures
Skin	Remove contaminated clothing and rinse with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
Eyes	Rinse cautiously with water for at least 15 minutes. Remove contact lenses if easy to do. Seek medical attention.
Inhalation	Move the person to fresh air and keep breathing comfortable. Obtain medical attention if symptoms occur.
Ingestion	Rinse mouth. Do not induce vomiting. Obtain medical attention promptly.

05 Firefighting measures

Use water spray, dry chemical or carbon dioxide as appropriate. Avoid high-pressure water jets that may spread spilled material. Firefighters should wear full protective equipment and self-contained breathing apparatus. Thermal decomposition may produce irritating or toxic fumes.

06 Accidental release measures

Isolate the area and restrict access. Wear suitable protective equipment. Collect liquid with inert absorbent or sweep solid granules into a sealed container while avoiding dust. Prevent discharge to drains and waterways. Dispose of collected material under applicable local regulations.

07 Handling and storage

Keep the work area well ventilated. Avoid contact with skin and eyes and avoid inhalation of vapor, mist or dust. Keep away from incompatible materials. Handle containers carefully.

Storage: Store sealed in a cool, dry, well-ventilated place away from light, fire and heat. Store at 5-35 C. Shelf life: 24 months. Reseal promptly after opening.

Packaging: 50 g, 100 g, 500 g and 1 kg fluorinated bottles; 5 kg, 25 kg and 200 kg plastic drums; 1,000 kg IBC. Custom packaging available.

08 Exposure controls and personal protection

Control	Recommendation
Occupational limits	No data provided in the source document.
Engineering controls	Use enclosure or local exhaust ventilation where appropriate.
Respiratory protection	Use suitable respiratory protection when ventilation is inadequate or dust may be generated.
Eye protection	Chemical safety goggles.
Hand protection	Chemical-resistant protective gloves.
Skin protection	Protective work clothing.

09 Physical and chemical properties

Property	Value / status	Remarks
Appearance	Colorless to pale-yellow transparent liquid	All grades
pH (1:20, 25 C)	10.0-12.0	All grades
Molecular weight	600-100,000 g/mol	Multiple grades
Solids	30-98%	Grade dependent
Solubility	Soluble in water, methanol, ethanol, dichloromethane and DMF; insoluble in hexane, toluene and ether	-

10 Stability and reactivity

Stable under normal sealed storage and handling conditions. Avoid high temperatures, strong oxidizers and other incompatible materials identified for the intended process. Protect moisture-sensitive products from prolonged exposure to humid air. Product-specific decomposition data were not provided unless stated elsewhere in this document.

11 Toxicological information

The hazard statements listed in Section 2 reflect the source document. Other toxicological endpoints, including sensitization, carcinogenicity and reproductive toxicity, were not fully supported by test data in the source and should be confirmed before formal issue.

12 Ecological information

Measured ecological data were not provided. Prevent uncontrolled release to water, soil and drainage systems. Adsorbents that have captured hazardous substances may require disposal as hazardous waste.

13 Disposal considerations

Collect waste in sealed containers and dispose of it through a licensed waste contractor in accordance with local, national and international requirements. Do not discharge waste directly to the environment.

14 Transport information

Transport classification in the Chinese source must be reviewed by a qualified regulatory professional before shipment. Protect packages from impact, sunlight, rain, excessive heat and moisture. Carry the current SDS with the shipment.

15 Regulatory information

Production, use, storage, transport and disposal must comply with applicable chemical safety and environmental regulations in the destination jurisdiction.

16 Other information

This information is provided in good faith based on current knowledge. Conditions and methods of use are beyond the supplier's control. The user is responsible for evaluating suitability and safety for the intended application. This English version is a translation of the supplied Chinese document and requires regulatory review before external issue.

Supplier note
For reference only. Final requirements are subject to the executed contract and current product documentation.