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1. Chemical Product and Company Identification

Product Name : Dimethylamine-ethylenediamine-epichlorohydrin copolymer
Material Uses : Flocculant
Supplier : **PT Timuraya Tunggal**

2. Composition, Information on Ingredient

Name	CAS #	Percent
1) Dimethylamine-ethylenediamine-epichlorohydrin copolymer	42751-79-1	50%

3. Hazard Identification

Summary of Acute Hazards

Irritation to eyes, nose, and throat; drowsiness, narcosis, tremors, and other CNS effects at high concentrations. Skin irritation, dermatitis, and defatting.

Route of Exposure, Signs and Symptoms

Inhalation

Nasal and respiratory irritation, dizziness, narcosis, headache, nausea, CNS Depression, and unconsciousness.

Eye Contact:

Watering, blurred visio, inflammation, and irritation which can result in corneal injury.

Skin Contact:

Irriationi, dermatitis.

Ingestion

Nausea, vomiting; CNS Depression; irritation of gastrointestinal tract, liver and peritoneal wall; lung congestion.

4. First Aid Measures

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Do not let victim rub eye(s). Do not attempt to neutralize with chemical agents. Do not use an eye pointment. Seek immediate medical attention.

Skin Contact: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Seek immediate medical attention. Wash contaminated clothing before reusing. Thoroughly clean shoes before reuse. Destroy contaminated clothing and/or shoes if necessary.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. Oxygen may be administered if breathing is difficult. Seek immediate medical attention.

Ingestion: DO NOT induce vomiting. If affected person is conscious give plenty of water to drink. If vomitin occurs, keep head below the hips to reduce the risks of aspiration. Give victim water again. Never give anything by mouth to an unconscious person. Call a physician or a poison control center immediately.

Notes to Physician: Attending physician should treat exposed patients symptomatically.

Medical Conditions Aggravated by over exposure: Repeated or prolonged exposure is not known to aggravate medical condition.

5. Fire Fighting Measures

Extinguishing Media	: Non-flammable.
Flash Points	: N/A
Special Fire Fighting Procedures	: Wear self-contained full face piece.
Unusual Fire and Explosion Hazards	: None

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: Remove all sources of ignition. Use absorbent materials to prevent footing hazard and to contain. Ventilate area with natural or explosion-proof, forced air ventilation. Avoid flushing into sewers, drains, waterways, and soil. Wear protective clothing and respiratory protection during cleanup.

7. Handling and Storage

Handling: Wear suitable protective clothing and eye/face protection. Avoid contact with skin and eyes. Wash thoroughly after handling. Empty containers retain product residue and can be hazardous. Follow all warnings and precautions even after container is emptied.

Storage: Store in tightly closed container. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. Exercise due caution to prevent damage to or leakage from the container.

General Remarks: Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling. Do not reuse container.

8. Exposure Controls, Personal Protection

Personal Protection

Eyes: Wear eye/face protection.

Skin: Skin contact with the product should be prevented through the use of suitable clothing, gloves and footwear selected with regard for use condition exposure potential. Protective equipment made of neoprene or nitrile rubber is recommended.

Respiratory: Wear appropriate respirator when ventilation is inadequate. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

When using respirator cartridges or canisters, they must be changed frequently (following each use or at the end of the work shift) to assure breakthrough exposure does not occur.

Ventilation: Ventilation is normally required when handling or using this product. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Other Protection: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Water should be supplied through insulated and heat-traced lines to prevent freeze-ups in cold weather.

Product Name

Exposure Limits

1) Poly[(dimethylimino)(2-hydroxy-1,3-propanedily)chloride]

Not available.

9. Physical and Chemical Properties

Appearance	: Clear, pale yellow liquid
Odor	: Mild
PH(In 1% solution)	: N/A
Melting/Freezing Point	: N/A
Specific Gravity(H2O=1)	: 1.04
Vapor Pressure	: N/A
Evaporation Rate	: N/A
Solubility	: soluble in water.

10. Stability and Reactivity

Stability and Reactivity : The product is stable.

Conditions of Instability : Not sensitive to mechanical impact. Not sensitive to static discharge.

Incompatibility(Material To Avoid): Heat, sparks and open flames.

Hazardous Decomposition Products: CO, CO₂, and fragmented hydrocarbons.

Hazardous Polymerization : Will not occur.

11. Toxicological Information

Toxicological Information : N/A

Other Toxic Effects : N/A

Special Remarks :N/A

12. Ecological Information

Ready degradability : N/A

Toxicity to fish : N/A

Toxicity to bacteria : N/A

13. Disposal Considerations

Waste Disposal: Dispose of according to all federal, state and local applicable regulations. Storage of controlled substances must comply with applicable regulatory security requirements, Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Container Disposal: Containers should be cleaned of residual product before disposal. Do not contaminate water by cleaning of equipment or disposal of wastes. Dispose of according to all federal, state and local applicable regulations. Consult your local or regional authorities.

14. Transport Information

DOT Shipping Information: NOT REGULATED.

IMO Shipping Information:

UN3082 , ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.,
(Poly(2-hydroxypropyldimethylammonium chloride)), Class 9, P.G. III

15. Regulatory Information

Regulatory Data

Ingredient Name

Quat. Ammonium Chloride	
SARA 313	NO
TSCA Inventory	Yes
CERCLA RQ	N/A
RCRA Code	N/A