POLYQUATERNIUM-10
Material Safety Data Sheet (MSDS)

1. PRODUCT IDENTIFICATION
   Product Name: polyquaternium-10
   INCI Name: polyquaternium-10
   Chemical Name: alkyl (behenyl) trimethyl ammonium chloride
   CAS Number: 53568-66-4, 54351-50-7, 55353-19-0, 68610-92-4, 81859-24-7

2. PHYSICAL & CHEMICAL PROPERTIES
   Melting Point: not available
   Boiling Point: not available
   Density: not available
   % Volatile by Volume: not available
   Specific Gravity: not available
   Solubility in water: soluble
   pH Value: 5.5 - 6.5 (2% solution)
   Appearance & Odor: light yellowish powder, faint odor

3. STABILITY & REACTIVITY
   Chemical Stability: stable under normal conditions
   Incompatibility: strong oxidizing agents
   Hazardous Decomposition: may occur at temperatures >100°C
   Hazardous Polymerisation: no data available

4. HANDLING & STORAGE
   Avoid contact with eyes. Wash thoroughly after handling. As with all chemicals, good industrial hygiene practices should be followed when handling this material.
   Avoid freezing or excessive heat. Do not handle or store near an open flame, heat or other sources of ignition. Keep the container tightly closed and in a cool, well-ventilated place.

5. ACCIDENTAL RELEASE MEASURES
   Isolate spill area immediately. Keep unauthorized personnel away. Ventilate closed spaces before entering. Do not touch or walk through spilled material. Prevent entry into waterways, sewers, basements or confined areas. Surface may become slippery after spillage. Use vacuum or broom sweeping and remove to disposal container. If damp, flush with water.

6. EXPOSURE CONTROLS & PERSONAL PROTECTION
   Respiratory Protection: Where exposure exceeds acceptable criteria, use NIOSH/OSHA-approved respiratory equipment.
   Protective Clothing: Gloves recommended to prevent prolonged skin contact. Safety glasses, goggles, or face shield recommended for eye protection.
   Other Protective Measures: Employees must practice good personal hygiene, washing exposed areas of skin several times daily and laundering contaminated clothing before re-use.

7. HAZARDS IDENTIFICATION
   General: no specific health hazards known.
   Inhalation/Ingestion: no data available.
   Eye Contact: Not an irritant.
   Skin Contact: Not an irritant.

8. FIRST AID MEASURES
   Eyes: Irrigate eyes with a heavy stream of water for at least 20 minutes. Seek medical attention if symptoms persist.
   Skin: Wash exposed areas of the body with plenty of water.
   Inhalation: Remove from area of exposure. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.
   Ingestion: If gastrointestinal symptoms develop, consult medical personnel.

9. FIRE FIGHTING MEASURES
   Flash Point: not determined
   Extinguishing Media: water spray, foam, carbon dioxide, dry powder
   Fire Fighting Procedures: Firefighters should wear full firefighting turn-out gear (full Bunker gear) including NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

10. TOXICOLOGICAL INFORMATION
    Acute LD50: >4000 mg/kg
    Dermal and Eye Irritation Test: not an irritant
    Carcinogenicity, Mutagenicity: no data available
    Environment: biodegradable

11. DISPOSAL CONSIDERATIONS
    Storage and disposal must be in accordance with applicable local, state & federal disposal regulations. Characterization and compliance with applicable laws are the responsibility solely of the generator.

12. TRANSPORT INFORMATION
    DOT Shipping Name: Refer to corresponding hazard class
    ADR/RIC Code: Refer to corresponding hazard class
    Sea Transport IMDG Code: Refer to corresponding hazard class
    Air Transport IATA: Refer to corresponding hazard class

13. DISCLAIMER
    This 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 other process. Such information is to be the best of the company’s knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user’s responsibility to satisfy himself as to the suitableness & completeness of such information for his own particular use.

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