Material Safety Data Sheet

Polybrene®: sc-134220

CHEMICAL IDENTIFICATION
Synonyms: Hexamethylen bromide, 1,5-Dimethyl-1,5-diazaundecamethylene polymethobromide
Description: Polybrene® is a cationic polymer used to increase the efficiency of infection of certain cells with a retrovirus in cell culture. Polybrene acts by neutralizing the charge repulsion between the virons and cell surface. It has other uses, including a role in protein sequencing.

COMPOSITION/INFORMATION ON INGREDIENTS
CAS #: 28728-55-4
Molecular Formula: C₁₃H₂₆Br₂N₂
Molecular Weight: 374.1987 [g/mol]
Solubility: Soluble in water
Storage: Store at –20°C.
Purity: N/A
pH: N/A

HAZARDS IDENTIFICATION
Appearance: Clear, colorless liquid
Classification: This product is unclassified according to Directive 1999/45/EC.

HAZARDOUS
Eyes: Possible mild eye irritant
Skin: Possible mild skin irritant, and may be harmful if absorbed through the skin
Ingestion: Possibly harmful if swallowed
Medical Conditions Aggravated by Exposure: Not known

FIRE EXTINGUISHING MEASURES
Flash Point: N/A
Flammable Limits: N/A
Extinguishing Media: This product is flammable; select extinguishing media best suited to extinguish the surrounding fire
Special Fire Fighting Procedures: None
Unusual Fire and Explosion Hazards: None

FIRST-AID MEASURES
Eyes: First check the victim for contact lenses and remove if present. Immediately flush eyes with copious amounts of water for at least 15 minutes. Seek medical attention. (Show label whenever possible).
Skin: Remove contaminated clothing and shoes. Immediately rinse skin with copious amounts of water for at least 15 minutes.
Ingestion: If swallowed, wash out mouth provided person is conscious. Remove contaminated clothing and shoes. Seek medical attention. (Show label whenever possible).
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention. (Show label whenever possible). If symptoms (such as wheezing, coughing, shortness of breath, or burning in the mouth, throat, or chest) develop, call a physician.

ACCIDENTAL RELEASE MEASURES
Personal Precautions: Restrict traffic in area of spill. Wear gloves, lab coat and protective boots if quantity is large.
Small Spills: Clean up spills immediately. Avoid contact with skin and eyes.
Environmental Precautions: This product has low potential for environmental effects.

Clean Up Measures: Contain spill and absorb with sand, earth, or vermiculite. Collect residues and place in labeled plastic containers. Larger spill may be absorbed in sand, sawdust or vermiculite, and stored in closed containers pending final disposition. To remove residual contamination, wash spill area with detergent and water. This water may be disposed to the sanitary sewer.

HANDLING AND STORAGE
Handling: Avoid contact with eyes and skin. Wear gloves. Do not inhale aerosols. May be harmful if swallowed and in contact with skin. Use personal protective equipment outlined in following section.
Storage: Store at –20°C.

EXPOSURE CONTROLS/PERSONAL PROTECTION
Respiratory protection: Not required for normal use.
Ventilation: General room ventilation.
Eye protection: Safety goggles with side shields.
Protective Clothing and Equipment: Nitrile gloves and laboratory coat.
General Precautions: Use good laboratory precautions and practices. Wash hands thoroughly after handling.
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PHYSICAL AND CHEMICAL PROPERTIES
Appearance and Odor: Clear, colorless liquid.
Boiling Point: 101°C to 102°C
Evaporation Rate (Butyl Acetate=1): N/A
Melting Point: -1°C
Solubility in Water: Soluble
Specific Gravity (H₂O=1): 1.01
Vapor Density (Air=1): NA
Vapor Pressure (mm Hg): <0.1 mm Hg

STABILITY AND REACTIVITY
Chemical Stability: Stable under normal temperatures and pressures
Conditions to Avoid: None known
Hazardous Decomposition: Oxides of carbon and nitrogen, hydrogen bromide
Hazardous Polymerization: Will not occur

TOXICOLOGICAL INFORMATION
Target Organs: Blood, kidneys
Inhalation: May cause mild respiratory tract irritation.
Ingestion: May cause gastrointestinal irritation, and be harmful if swallowed.
Skin Contact: May cause mild skin corrosion, and be harmful if adsorbed through the skin.
Eye Contact: May cause mild eye irritation.
Carcinogenicity: Hexadimethrine bromide and water are not listed as carcinogenic by ACGIH, IARC, NTP, OSHA or California Proposition 65.
Medical Conditions Aggravated by Exposure: Not known.

DISPOSAL CONSIDERATIONS
This product may be disposed of an industrial sewer system if permitted by local regulation. This product must be disposed in a manner consistent with national, state, and local regulations.

ECOLOGICAL INFORMATION
Data not yet available.

TRANSPORT INFORMATION
The transportation of this product is not regulated by IMDG (sea), ADR (road), RID (rail), ICAO/IATA (air), or USDOT as a dangerous good or hazardous material.

REGULATORY INFORMATION
Classification: Non-hazardous
Risk Phrases: S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Safety Phrases: Wear suitable protective clothing.
Japan: Hexadimethrine bromide is not listed under the Poisonous and Deleterious Substances Control Law.
United States: Hexadimethrine bromide is not listed on the EPA Toxic Substances Control Act (TSCA) Inventory. In the United States, its use is restricted to research and development and activities regulated by the Food and Drug Administration.

OTHER INFORMATION
The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Santa Cruz Biotechnology shall not be held liable for any damage resulting from handling or from contact with the product.

Polybrene® is a registered trademark of Abbott Laboratories Corp.