

# Material Safety Datasheet (MSDS)

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Version 2.0

www.abmgood.com

Applied Biological Materials Inc.

1-3671 Viking Way,

Richmond, BC, CANADA

V6V 2J5

## Section 1 – Product and Company Information

Product Name	Polybrene
Catalog # From Manufacturer	G062
Original Manufacturer	Applied Biological Materials Inc.

Company	Applied Biological Materials Inc.
Address	#1-3671 Viking Way Richmond BC V6V 2J5 CA
Technical Phone	604-247-2416
Fax	604-247-2414
Emergency Phone	866-757-2414

## Section 2 – Composition/Information on Ingredient

Substance Name	Hexadimethrine bromide
Formula	$(C_{13}H_{30}Br_2N_2)_n$
Molecular Weight	No data available.
CAS Number	28728-55-4
EEC-No	684-236-5

### Section 3 – Hazards Identification

<b>WHMIS Classification</b>	<ul style="list-style-type: none"><li>• Health Hazard: Acute Tox. 4</li><li>• Flammability: 0</li><li>• Reactivity: 0</li></ul>
<b>NFPA Rating</b>	<ul style="list-style-type: none"><li>• Health: 2 (<i>Harmful if swallowed</i>)</li><li>• Flammability: 0</li><li>• Reactivity: 0</li></ul>

### Section 4 – First Aid Measures

<b>Eye Contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses.
<b>Skin Contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower.
<b>Inhalation</b>	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
<b>Ingestion</b>	Make victim drink water (two glasses at most). Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### Section 5 – Fire Fighting Measures

<b>Suitable Extinguishing Media</b>	Use media appropriate to the primary cause of fire. Dry chemical, CO <sub>2</sub> , water spray or regular foam.
<b>Specific Hazards</b>	<ul style="list-style-type: none"><li>• Carbon oxides</li><li>• Nitrogen oxides (NO<sub>x</sub>)</li><li>• Hydrogen bromide gas</li><li>• Ambient fire may liberate hazardous vapours</li></ul>

### Section 6 – Accidental Release Measures

<b>Personal Precautions</b>	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
<b>Methods for Cleaning Up</b>	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material. Dispose of properly. Clean up affected area.
<b>Environmental Precautions</b>	Prevent discharge into the environment. Dike spills and stop leakage where practical. Do not allow material to enter drains.

## Section 7 – Handling and Storage

<b>Handling</b>	Wear personal protective equipment/face protection. Ensure adequate ventilation.
<b>Storage</b>	Tightly closed. Storage class (TRGS 510): 12: Non Combustible Liquids.

## Section 8 – Exposure Controls/ PPE

<b>Engineering Controls</b>	<ul style="list-style-type: none"><li>• Change contaminated clothing. Wash hands after working with substance.</li></ul>
<b>Personal Protective Equipment</b>	<ul style="list-style-type: none"><li>• <b>Eye Protection:</b> Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses.</li><li>• <b>Skin and Body Protection:</b> Wear appropriate protective gloves and clothing to prevent skin exposure.</li><li>• <b>Respiratory Protection:</b> Not required; except in case of aerosol formation..</li></ul>
<b>General Hygiene Measures</b>	<ul style="list-style-type: none"><li>• Handle in accordance with good industrial hygiene and safety practice.</li></ul>

## Section 9 – Physical and Chemical Properties

<b>Appearance</b>	Liquid, colourless.
<b>Odour</b>	No data available.
<b>Melting Point (°C)</b>	No data available.
<b>Boiling Temperature (°C)</b>	No data available.
<b>Density</b>	No data available.
<b>Vapour Pressure</b>	No data available.
<b>Solubility in Water</b>	Soluble.
<b>Flash Point</b>	No data available.
<b>Explosion Limits</b>	No data available.
<b>Ignition Temperature</b>	No data available.

## Section 10 – Stability and Reactivity

<b>Stability</b>	<ul style="list-style-type: none"><li>• Stability: Stable under normal conditions.</li></ul>
<b>Hazardous Decomposition Products</b>	<ul style="list-style-type: none"><li>• In the event of fire: see section 5.</li></ul>
<b>Incompatible Materials</b>	<ul style="list-style-type: none"><li>• No data available.</li></ul>
<b>Hazardous Polymerization</b>	<ul style="list-style-type: none"><li>• Does not occur.</li></ul>

## Section 11 – Toxicological Information

<b>Route of Exposure</b>	<ul style="list-style-type: none"><li>• Skin Contact: No data available.</li><li>• Skin Absorption: No data available.</li><li>• Eye Contact: No data available.</li><li>• Inhalation: No data available.</li><li>• Ingestion: Acute toxicity estimate Oral - &gt; 5,000 mg/kg (Calculation method).</li></ul>
<b>Signs and Symptoms of Exposure</b>	<ul style="list-style-type: none"><li>• Acute toxicity estimate Oral - &gt; 5,000 mg/kg (Calculation method). LD50 Oral - Mouse - &gt; 1,000 mg/kg</li></ul>

## Section 12 – Ecological Information

<b>Toxicity</b>	<ul style="list-style-type: none"><li>• No data available.</li></ul>
<b>Persistence and Degradability</b>	<ul style="list-style-type: none"><li>• No data available.</li></ul>
<b>Bioaccumulative Potential</b>	<ul style="list-style-type: none"><li>• No data available.</li></ul>
<b>Mobility in Soil</b>	<ul style="list-style-type: none"><li>• No data available.</li></ul>

## Section 13 – Disposal Considerations

<b>Product</b>	<ul style="list-style-type: none"><li>Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself. See <a href="http://www.retrologistik.com">www.retrologistik.com</a> for processes regarding the return of chemicals and containers, or contact us there if you have further questions.</li></ul>
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## Section 14 – Transportation Information

<b>DOT</b>	<ul style="list-style-type: none"><li>Not regulated.</li></ul>
<b>IATA</b>	<ul style="list-style-type: none"><li>Not regulated.</li></ul>

## Section 15 – Regulatory Information

- WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
- DSL: No
- NDSL: No

## Section 16 – Other Information

The information contained in this Material Safety Datasheet is believed to be accurate but it is the responsibility of the user or supplier to determine the applicability of these data to the formulation of necessary safety precautions.

Applied Biological Materials Inc. shall not be held responsible for any damage resulting from the use of the above product or the information contained in this Material Safety Datasheet.