MATERIAL SAFETY DATA SHEET (MSDS)

IDENTIFICATION:

The following products from Active Motif are covered under this MSDS.

- Purified polyclonal antibodies of mouse, rabbit or goat origin.

Components common to all of these products are buffer salts and human or animal proteins. None of these components are considered to be hazardous. The hazardous substance, thimersol, is present in these products in very small amounts as an anti-microbial preservative.

HAZARDOUS INGREDIENTS:

<table>
<thead>
<tr>
<th>Materials</th>
<th>Thimersol, less than or equal to 0.01%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS#</td>
<td>54-64-8</td>
</tr>
<tr>
<td>Toxicity Data</td>
<td>LD₅₀= 75 mg/kg (rat-oral),</td>
</tr>
</tbody>
</table>

The concentration of thimersol is below the regulatory threshold limits according to OSHA standard 29CFR 1910.1200. However, precautions for handling potentially dangerous reagents should be practiced when using these products. To aide in determining handling procedures, we offer the following additional information.

- **Physical State of thimersol-containing antibody**: Odorless, light gold color, clear liquid
The following applies to thimersol powder

PHYSICAL DATA:

- Physical State of thimersol: white powder, fine crystalline
- Boiling point: Undetermined
- Melting point: 232°C to 233°C
- Vapor pressure: Not applicable
- Vapor density: Not available
- Solubility in water: Soluble, 1000g/l, (20°C)
- Solubility in ethanol: 125 g/l, (20°C)

REACTIVITY DATA:

The product has no known dangerous reactions, nor known dangerous decomposition products. Avoid aluminium and reducing

FIRE FIGHTING MEASURES:

- Extinguishing media: Powder, water, CO2
- Special risks: Development of hazardous vapors possible in the event of fire. The following might develop in the event of fire: Hg vapors.

ACCIDENTAL RELEASE MEASURES:

- Procedures for cleaning/absorption: Carefully take up dry. Avoid generation of dust.

FIRST AID MEASURES:

Very toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects.

- After inhalation: fresh air. Apply mouth-to-mouth resuscitation or mechanical ventilation of necessary. Summon doctor.
- After skin contact: wash with plenty of water. Dab with polyethylene glycol 400. Immediately remove contaminated clothing.
- After eye contact: rinse with plenty of water for at least 10 minutes with the eyelid held wide open. Immediately summon eye specialist.
- If swallowed: make the victim drink plenty of water, induce vomiting. Immediately summon doctor.
DISPOSAL CONSIDERATIONS:

Disposal should be in accordance with ALL FEDERAL, STATE, and LOCAL ENVIRONMENTAL REGULATIONS.

TOXICOLOGICAL INFORMATION:

- **Acute toxicity**: LD$_{50}$ = 75 mg/kg (rat-oral),
- **Further Toxicological Information**: Quantitative data on the toxicity of this product are not available. The following applies to organic mercury compounds in general: long-term exposure leads to disorders/damage of the nervous system. Danger of skin absorption. Sensitisation with allergic manifestations in predisposed persons. Pregnant women should not be exposed to the product. Further hazardous properties cannot be excluded.
- **Further data**: This product should be handled with the care usual when dealing with chemicals.

PROTECTION INFORMATION:

Follow good laboratory practice when handling this product. The following precautionary measures are recommended:

- **Eye protection**: Laboratory safety goggles
- **Hands**: Chemical resistant gloves
- **Skin**: Laboratory protective clothing
- **Respiratory**: Fume hood or in areas with adequate ventilation/exhaustion.

SPECIAL PRECAUTIONS:

- **Storage of thimersol powder**: Tightly closed. Protected from light. Dry. Accessible only for authorized persons.
- **Storage of antibody containing thimersol**: Store as recommended on antibody vial, 4°C or –20°C.

This product is intended for research use only.

The above information is believed to be correct but does not purport to be all-inclusive and is only intended to be used as a guide. Active Motif shall not be held responsible for any damage resulting from the use of these products or the information contained in this Material Safety Data Sheet.

Document Prepared Data: March 2005