

PATHOGEN SAFETY DATA SHEET

Agent Name: **Babesia microti**

AGENT CHARACTERISTICS	
<i>Morphology</i>	Parasite that undergoes asexual reproduction. Sporozoite stage enters human erythrocytes.
<i>Zoonosis</i>	Yes, usually through tick bites.
<i>Diseases</i>	Babesiosis or piroplasmosis.

VIABILITY	
<i>Disinfection</i>	Use 10 % Bleach (minimum 0.3% sodium hypochlorite); or 70 % ethanol.
<i>Physical Inactivation</i>	Autoclave and dispose of as Regulated Medical Waste (RMW). See waste information for disposal of solid and liquid waste.
<i>Survival Outside of Host</i>	Stages die within hours if not kept in optimum conditions.

HEALTH HAZARDS	
<i>Host Range</i>	Rodents, ticks, humans.
<i>Modes of Transmission in the Lab</i>	Exposure to open wounds, accidental injection into skin.
<i>Signs and Symptoms</i>	Fever, chills, sweating, myalgias, fatigue, hepatosplenomegaly, and hemolytic anemia.
<i>Infectious Dose</i>	Unknown.
<i>Incubation Period</i>	1-4 weeks.

LABORATORY HAZARDS	
<i>Laboratory Acquired Infections (LAIs)</i>	Cases have been reported.
<i>Sources</i>	Cultures, frozen stocks, other samples described in IBC protocol.

MEDICAL-RELATED INFORMATION	
<i>Prophylaxis Availability</i>	None.
<i>Vaccine Availability</i>	None.
<i>Medical Information</i>	You should inform the physician of any drug resistance(s) acquired by the lab strain(s) and any sequences inserted into the lab strain(s).
<i>Surveillance</i>	Monitor for symptoms of infection (see "Health Hazards")
<i>VT Requirements</i>	Immediately report any exposures to Occupational Health.

WASTE INFORMATION	
<i>Waste Disposal</i>	Refer to the EHS Laboratory Waste Charts for details on disposal of biohazardous waste.

CONTAINMENT REQUIREMENTS	
<i>BSL-2</i>	All procedures must be performed in a BSC, unless otherwise approved and stated in lab-specific manual.
<i>ABSL-2</i>	For all procedures utilizing infected animals.
<i>ACL-2</i>	For all procedures utilizing infected arthropods.
<i>BL2/BLN-2/BLP-2</i>	Follow all applicable <i>NIH Guideline</i> requirements.
<i>RG2</i>	Agents that are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are <i>often</i> available.

MINIMUM PPE	
<i>Minimum Requirements</i> <i>See Section 4.6 of UBM for details</i>	<ul style="list-style-type: none"> Tie back hair and wear closed-toe shoes, street clothing fully covering legs, lab coat, disposable gloves. Additional requirements listed in Section 15 of your lab-specific biosafety manual must be followed.
<i>Additional Precautions</i>	If centrifuge is outside of BSC and rotors are not sealed, wait 5 minutes after centrifuge completely stops before opening centrifuge.

SPILL INFORMATION	
<i>Small</i> <i>(Refer to Section 3 of the LSBM for details on clean-up)</i>	Notify others working in the lab. If contaminated, remove PPE and don new PPE. Follow spill procedures in Section 3 of the Lab-specific Biosafety Manual.
<i>Large</i> <i>(Refer to Section 1.8 of the UBM for details on clean-up)</i>	<ul style="list-style-type: none"> Immediately notify all personnel in the lab and clear all personnel from the area. Remove any contaminated PPE/clothing and leave the lab. Secure the area by locking doors, posting signage and guarding the area to keep people out of the space. Call 911 or non-emergency Campus Police (231-6411) and ask to notify EHS. Inform the PI or Lab Manager/ Supervisor as soon as possible.

EXPOSURE INFORMATION	
<i>Eyes and Mucous Membranes</i> <i>(See section 1.3 and 1.5 of UBM for details)</i>	<ul style="list-style-type: none"> Flush eyes for 5-10 minutes at eyewash station. Immediately flush membranes with plain water. Go to an appropriate health care provider. Bring a copy of this PSDS.
<i>Needle sticks and open wounds</i> <i>(See section 1.3 and 1.5 of UBM for details)</i>	<ul style="list-style-type: none"> Clean and wash area thoroughly with soap and water, for a minimum of 5 minutes. For a needlestick, gently massage the area to make it bleed while washing. Go to an appropriate health care provider. Bring a copy of this PSDS.

REFERENCES & SOURCES
Montana State University; Biosafety Program
Canadian PSDS and Risk Assessment
BMBL; 5th Edition
CDC
NIH Guidelines

LAB-SPECIFIC INFORMATION: Check ALL responses applicable to your lab:	
<input type="checkbox"/>	I have reviewed the above information and my lab will follow all requirements as described above.
<input type="checkbox"/>	I have reviewed the above information and my lab will follow all requirements as described above with the following changes specific to my lab: