

## PATHOGEN SAFETY DATA SHEET

### Risk Group 1/Biosafety Containment Level 1 (RG1/BSL1)

Common Risk Group 1 Agents	
<i>Escherichia coli</i> (cloning strains)	MC1061, K-12, MG1655, MC1061, DH5alpha, DH10b, AD494(DE3), NovaBlue, HMS174, Origami (DE3), B strain, BI21, NEB T7 Express, BI21(DE3) pLysS, B834(DE3) pLysS, Rosetta, HB101, JM110
Bacteria	Alcaligenes faecalis, Bacillus cereus, Bacillus mageterium, Bacillus subtilis, Clostridium sporogenes, Enterobacter aerogenes, Enterobacter cloacae, Kocuria rosea, Lactobacillus spp., Micrococcus luteus, Mycobacterium smegatis, Naelgleria sicca, Neisseria subflava, Penicillium notatum, Rhizopus stolonifera, Rhodospirillum rubrum, Serratia marcescens, Staphylococcus epidermidis, Streptococcus bovis, Streptococcus lactis
Native Plant Pathogens	Fusarium pseudograminearum, Fusarium oxysporum, Aphanomyces cochlioides, Potato virus X, Potato virus y, Phytophthora infestans, Pythium ultimum, Rhizoctonia solani, Wheat streak mosaic virus, Barley yellow dwarf luteovirus, Barley stripe mosaic virus, Aphanomyces euteiches
Yeast	Saccharomyces cerevisiae
Cell lines	Sf9 Insect cell lines, Rodent cell lines

CONTAINMENT REQUIREMENTS	
BSL1	For all procedures involving RG1 agents
ABSL1/2	Animal housing requirements determined by the ARC/AV.

SPILL PROCEDURES	
Small	Notify others working in the lab. Remove PPE and don new PPE. Cover area of the spill with absorbent material and add fresh 1:10 bleach:water. Allow 20 minutes of contact time. After 20 minutes, cleanup and dispose of materials.
Large	<ul style="list-style-type: none"> <li>Immediately notify all personnel in the lab and clear all personnel from the area. Remove any contaminated PPE/clothing and leave the lab.</li> <li>Secure the area by locking doors, posting signage and guarding the area to keep people out of the space.</li> </ul> For assistance, contact MSU's Biosafety Officer (406-994-6733) or Safety and Risk Management (406-994-2711).

HEALTH HAZARDS	
Host Range	Biological agents not known to cause disease in healthy adult humans. However, some RG1 biological agents can act as opportunistic pathogens in immunocompromised individuals and the young and elderly.

EXPOSURE PROCEDURES	
Mucous membrane	Flush eyes, mouth, or nose for 5 minutes at eyewash station.
Other Exposures	Wash area with soap and water for 5 minutes.
Reporting	Immediately report incident to supervisor, complete a <a href="#">First Report of Injury</a> form, and submit to Safety and Risk Management.
Medical Follow-up	<b>During business hours:</b> Bridger Occupational Health 3406 Laramie Drive Weekdays 8am -6pm. Weekends 9am-5pm  <b>After business hours:</b> Bozeman Deaconess Hospital Emergency Room 915 Highland Blvd

MEDICAL PRECAUTIONS/TREATMENT	
Prophylaxis	None
Vaccines	None
Surveillance	Monitor for symptoms.
MSU Requirements	Report any exposures.

LABORATORY HAZARDS	
Laboratory Acquired Infections (LAIs)	Unknown

VIABILITY	
Disinfection	Susceptible to bleach, 70% ethanol, and other disinfectants as <a href="#">outlined by the EPA</a> .
Inactivation	Inactivated by moist heat (15 minutes at 121°C) and dry heat (1 hour at 160-170°C).

SUPPLEMENTAL REFERENCES	
Canadian MSDS:	<a href="http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/index-eng.php">http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/index-eng.php</a>
BMBL	<a href="https://www.cdc.gov/labs/BMBL.html">https://www.cdc.gov/labs/BMBL.html</a>

PERSONAL PROTECTIVE EQUIPMENT (PPE)	
Minimum PPE Requirements	Lab coat, disposable gloves, safety glasses, closed toed shoes, long pants
Additional Precautions	Additional PPE may be required depending on lab specific SOPs and IBC Protocol.