

## PATHOGEN SAFETY DATA SHEET

### Klebsiella pneumoniae

CHARACTERISTICS	
Morphology	Gram negative, nonmotile, usually encapsulated rod-shaped bacteria.
Disease	Pneumonia, abscess (lung, brain, liver), meningitis, urinary tract infection; common nosocomial pathogen.
Zoonosis	none

HEALTH HAZARDS	
Host Range	Humans and animals
Modes of Transmission	Can be transmitted through skin contact with environmentally contaminated surfaces and/or objects.
Signs and Symptoms	Fevers, chills, and leukocytosis with red currant jellylike sputum. Rare complications include lung infection involving necrosis and sloughing of the entire lobe.
Infectious Dose	unknown
Incubation Period	unknown

MEDICAL PRECAUTIONS/TREATMENT	
Prophylaxis	None available
Vaccines	None available
Treatment	Ceftazidime, ceftriaxone, cefotaxime, piperacillin/tazobactam, imipenem, gentamicin, and amikacin.
Surveillance	Monitor for symptoms
MSU Requirements	Report any exposures

LABORATORY HAZARDS	
Laboratory Acquired Infections (LAIs)	1 case
Sources	Respiratory tract. Cultures, frozen stocks, other samples described in IBC protocol.

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>
CDC	<a href="https://www.cdc.gov/hai/organisms/klebsiella/klebsiella.html">https://www.cdc.gov/hai/organisms/klebsiella/klebsiella.html</a>
NIH Guidelines	<a href="https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.pdf">https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.pdf</a>

RISK GROUP & CONTAINMENT REQUIREMENTS	
Risk Group 2	Agents that are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available.
BSL2	For all procedures involving suspected or known infectious specimen or cultures.
ABSL2	For all procedures utilizing infected animals.

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 (or as directed) 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).

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

VIABILITY	
Disinfection	Susceptible to 1:10 bleach:water, 70 % ethanol and glutaraldehyde.
Inactivation	Inactivated by moist heat (15 minutes at 121°C) and dry heat (1 hour at 170°C)
Survival Outside Host	Extended periods of time.

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.