

## PATHOGEN SAFETY DATA SHEET

### Actinomyces spp.

CHARACTERISTICS	
Morphology	Gram positive rods, have filaments that are non-acid-fast and non-motile, most species are facultative anaerobes.
Disease	Actinomycosis, gastrointestinal infections, gingivitis
Zoonosis	None.

HEALTH HAZARDS	
Host Range	Humans and animals.
Modes of Transmission	ingestion, exposure to mucous membranes, exposure to open wounds.
Signs and Symptoms	Abscess in area of exposure, redness and swelling in area of exposure, stomach pain.
Infectious Dose	Unknown.
Incubation Period	Mucous membranes: days to months; colonization of other areas may be days to years.

MEDICAL PRECAUTIONS/TREATMENT	
Prophylaxis	None available.
Vaccines	None available.
Treatment	Penicillin is usually effective, but amoxicillin, erythromycin, clindamycin, doxycycline, and tetracycline are alternative antimicrobial choices. Tetracyclines are not recommended for pregnant women or children younger than 8 years of age. Surgical drainage often is a necessary adjunct to medical management and may allow for a shorter duration of antimicrobial treatment
Surveillance	Monitor for symptoms.
MSU Requirements	Report any exposures

LABORATORY HAZARDS	
Laboratory Acquired Infections (LAIs)	Cases have been reported.
Sources	Samples from oral cavity (dental plaque, saliva, mucosal surfaces), blood, tissue biopsy specimens, aspirates. 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	
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, 2% glutaraldehyde and peracetic acid (0.001%-0.2%)
Inactivation	Inactivated by moist heat (15 minutes at 121°C) and dry heat (1 hour at 160-170°C).
Survival Outside Host	Unknown.

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.