

PATHOGEN SAFETY DATA SHEET

Aspergillus spp.

CHARACTERISTICS	
Morphology	Fungus belonging to the Trichocomaceae family. Colonies grow rapidly, producing white, green, yellow, or black colonies
Disease	Aspergillosis, Farmer's Lung. <i>A. fumigatus</i> causes most infections, and <i>A. niger</i> and <i>A. flavus</i> are second.
Zoonosis	None.

HEALTH HAZARDS	
Host Range	Humans, animals, and birds.
Modes of Transmission	Inhalation, through contaminated water, and nosocomial infections (hospital fabrics and plastics)
Signs and Symptoms	Fever, facial pain, headache, asymmetric facial swelling, epistaxis, proptosis, cranial nerve abnormalities.
Infectious Dose	Unknown.
Incubation Period	2 days to 3 months

MEDICAL PRECAUTIONS/TREATMENT	
Prophylaxis	None available.
Vaccines	None available.
Treatment	Voriconazole, amphotericin B, posaconazole and echinocandins. Is resistant to itraconazole and some isolates have been reported to be resistant to voriconazole, posaconazole and echinocandins.
Surveillance	Monitor for symptoms.
MSU Requirements	Report any exposures

LABORATORY HAZARDS	
Laboratory Acquired Infections (LAIs)	None reported
Sources	Sputum, biopsy material, transtracheal aspirates, blood, and soil. Inhalation of air contaminated with <i>Aspergillus</i> spores.

SUPPLEMENTAL REFERENCES	
Canadian MSDS:	http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/index-eng.php
BMBL	https://www.cdc.gov/labs/BMBL.html
CDC	https://www.cdc.gov/fungal/diseases/aspergillosis/index.html
NIH Guidelines	https://osp.od.nih.gov/wp-content/uploads/NIH_Guidelines.pdf

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 involving 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"> 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. 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 First Report of Injury form, and submit to Safety and Risk Management.
Medical Follow-up	During business hours: Bridger Occupational Health 3406 Laramie Drive Weekdays 8am -6pm. Weekends 9am-5pm After business hours: Bozeman Deaconess Hospital Emergency Room 915 Highland Blvd

VIABILITY	
Disinfection	Susceptible to 1:10 bleach:water, 70 % ethanol, accelerated hydrogen peroxide
Inactivation	Inactivated by heat (greater than 45 minutes at 60°C).
Survival Outside Host	Can survive in soil and decomposing vegetation.

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.