MONTANA STATE UNIVERSITY | Office of Research Compliance

PATHOGEN SAFETY DATA SHEET

Candida albicans

CHARACTERISTICS	
Morphology	Fungus belonging to the Candiaceae family. Polymorphic fungus as it can occur as yeast or pseudohyphal forms.
Disease	Opportunistic commensal pathogen causing candidiasis such as thrush (oral), vaginal infections, superficial infection of mucous membranes, eye infections, macerated skin infections.
Zoonosis	None.

HEALTH HAZARDS	
Host Range	Humans.
Modes of Transmission	Most infections result from the patient's own flora, rather than from cross infection.
Signs and Symptoms	Most frequent clinical form is thrush/oral candidiasis and is characterized by white patches.
Infectious Dose	unknown
Incubation Period	unknown

MEDICAL PRECAUTIONS/TREATMENT	
Prophylaxis	None available.
Vaccines	None available.
Treatment	Amphotericin B, nystatin, flucytosine, the azoles, echinocandins
Surveillance	Monitor for symptoms.
MSU Requirements	Report any exposures

LABORATORY HAZARDS	
Laboratory Acquired Infections (LAIs)	Low risk of infection. A medical student has been reported to have developed a rash and folliculitis 2 days after she spilled a heavy suspension of C. albicans on her leg while conducting a laboratory experiment.
Sources	Epithelial scrapings or exudates from lesions, sputum, bronchoalveolar lavage, and blood. Cultures, frozen stocks, other samples described in IBC protocol.

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/candidiasis/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 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	• 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, and 4 % potassium iodide, accelerated hydrogen peroxide
Inactivation	Inactivated moist heat (1 hour at 121°C).
Survival Outside Host	Can survive on inanimate surfaces for 24 hours to 120 days, and on palms for about 45 minutes.

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.