

PATHOGEN SAFETY DATA SHEET

Herpes Simplex Virus

CHARACTERISTICS	
Morphology	HSV-1 and HSV-2 are members of the Herpesviridea family. Are double stranded DNA viruses enclosed within an icosahedral capsid.
Disease	HSV-1: Primarily cold sores, eye infections, CNS infections. HSV-2: primarily genital sores.
Zoonosis	none.

HEALTH HAZARDS	
Host Range	Humans
Modes of Transmission	Direct contact with infected secretions or mucous membranes or skins with lesions
Signs and Symptoms	Cold sores: Mainly caused by HSV-1. Gingivostomatitis, fever, sore throat, mucosal edema, and painful lesions Genital herpes: Sexually transmitted disease mainly caused by HSV-2. Bilateral, painful, and extensive genital ulcers, which heal without scarring within 12 days.
Infectious Dose	unknown
Incubation Period	1 to 26 days.

MEDICAL PRECAUTIONS/TREATMENT	
Prophylaxis	None available.
Vaccines	None available.
Treatment	Antiviral drugs like acyclovir, foscarnet valacyclovir, famciclovir, and penciclovir.
Surveillance	Monitor for symptoms. Viral culture or PCR is used to detect presence of viral infection.
MSU Requirements	Report any exposures

LABORATORY HAZARDS	
Laboratory Acquired Infections (LAIs)	none
Sources	Virus is shed from saliva, cervix, and urethra. 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/std/herpes/stdfact-herpes.htm
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	<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
Inactivation	Inactivated by moist heat (15 minutes at 121°C) and dry heat (1 hour at 170°C).
Survival Outside Host	Survives outside host on dry inanimate surfaces (hours to weeks).

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.