MONTANA STATE UNIVERSITY | Office of Research Compliance

PATHOGEN SAFETY DATA SHEET

Enterovirus D68

CHARACTERISTICS

Morphology	Positive-sense single-stranded RNA virus.
Disease	Enterovirus D68 (EV-D68) is a specific type of non-polio enterovirus. It was first identified in California in 1962 but since then was only rarely reported in the United States compared to other non-polio enteroviruses. In the fall of 2014, EV-D68 was associated with a nationwide outbreak of severe respiratory illness in the United States and Canada. In some patients, EV-D68-associated illness was severe enough to require intensive care unit (ICU) admission.
Zoonosis	unknown

HEALTH HAZARDS

Host Range	Humans
Modes of Transmission	Direct contact with infected secretions or mucous membranes.
Signs and Symptoms	Respiratory illness: Mild symptoms may include runny nose, sneezing, cough and body and muscle aches. Severe symptoms may include wheezing and difficulty breathing.
Infectious Dose	unknown
Incubation Period	3 to 6 days.

MEDICAL PRECAUTIONS/TREATMENT

Prophylaxis	None available.
Vaccines	None available.
Treatment	No specific treatment for people with respiratory illness.
Surveillance	Monitor for symptoms.
MSU Requirements	Report any exposures

LABORATORY HAZARDS

Laboratory Acquired Infections (LAIs)	none
Sources	Virus is shed from saliva. 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/non-polio-enterovirus/about/ev-d68.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, accelerated hydrogen peroxide
Inactivation	Inactivated moist heat (121°C for 30 min) 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.