



OSU Biosafety Office Contacts	
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***Actinomyces spp.*
Pathogen Safety Data Sheet**

Pathogenicity/Toxicity

Actinomyces spp. Are a part of normal flora of oral cavity, but infection can occur upon disruption of tissue barriers.
Actinomyces spp. Is an opportunistic organism, with low pathogenesis when alone, but it causes infection in association with other pathogeneses or in individuals with compromised immune system.
 Poses very little risk to healthy individuals but people who have weakened immune systems are at risk.

Hazard Identification

Epidemiology	Distributed worldwide
Host Range	Humans and other mammals.
Transmission	Part of the normal oral flora.
Infectious Dose	Unknown
Incubation Period	Difficult to establish since it is part of the normal flora, can be several days to several years after colonization,
Communicability	Infections result mostly by <i>Actinomyces spp.</i> colonizing the host, but presumed it can be transmitted from person to person via direct contact.

Stability/Viability

Drug Susceptibility	Highly sensitive to β -lactam antibiotics, high to moderate sensitivity to tetracyclines, chloramphenicol, macrolides, lincomycins, fusidic acid and vancomycin.
Drug Resistance	<i>Actinomyces spp.</i> do not generally develop antibiotic resistance, but some strains are resistant to aminoglycosides, peptide antibiotics, metronidazole and rifampicin.
Susceptibility to Disinfectants	Susceptible to low concentrations of chlorine, 70 % ethanol, phenolics, 2% aqueous glutaraldehyde, and peracetic acid (0.001% to 0.2%).
Physical Inactivation	Inactivation is obtained by exposure to UV rays or by heating to 55-65 °C, by moist heat (15 minutes at 121°C) and dry heat (1 hour at 160-170°C)
Survival Outside Host	Unknown

First Aid/Medical

Immunization	None
Prophylaxis	None
Treatment	Antibiotic therapy.

Laboratory Hazards

Laboratory Acquired Infections (LAIs)	None reported, one laboratory-acquired infection suspected.
Primary Hazards	Open wounds.
Special Hazards	None

Exposure Controls

Containment	BSL-2 for the Genus as a whole, specific Species within the genus may not need this containment level.
Required PPE	At minimum, gloves, closed toed shoes and lab coat, appropriate face and eye protection when potential splashes or aerosol. Additional PPE may be required depending on lab specific SOPs.
Other Precautions	Use of BSC for procedures that may produce aerosols & those that involve high concentrations/large volumes; limited sharps usage

Exposure Procedures

Personnel Exposure	In the event that a substance enters the mouth, eyes, lungs, or penetrates/makes contact with skin: <ul style="list-style-type: none"> • Alert others in the lab • Remove contaminated PPE & clothing • Flush eyes/mouth with water for 5 min or wash exposed skin with soap & water
Reporting	Report immediately to the PI or lab/facility manager. Report to the Biosafety Office with 48 hours. Complete an Employee Injury Report form (if required) and submit to EHS.
Emergency Assistance	Emergency assistance can be obtained by dialing 911.
Medical Follow-up	<u>During Business Hours</u> University Health Services 1202 W. Farm Road Stillwater, OK 74078 <u>After Business Hours</u> Stillwater Medical Center ER 1323 W. 6 th Ave. Stillwater, OK 74074