



The University of Texas at Tyler
Environmental Health and Safety
BIOLOGICAL AGENT REFERENCE SHEET

Characteristics	
Risk Group	2 - Agents that are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available.
Agent Type	Biohazard
Description	<p>Klebsiella pneumoniae is a Gram-negative, nonmotile, rod-shaped bacterium. This agent is an extremely medically relevant causative factor in pneumonia, urinary tract infections and meningitis in hospital settings (community-acquired). The CDC confirms they are increasingly resistant to carbapenems and other modern antibiotics.</p> <p>ref: CDC. Klebsiella pneumoniae; Klebsiella pneumoniae. Genome. NCBI;</p>
Host Range	Humans and animals
Exposure route	Contact with broken skin; contact, inhalation, ingestion, injection
Incubation period	1-6 weeks are the latest known values

Laboratory Hazards	
High Energy	Centrifugation, sonication, vortexing
Sharps	Needles, broken glass

Aerosols	Shaking, liquid culturing, pipetting, coughing, sneezing
Equipment	Easily adhere to and stay on unsanitary equipment
Exposed body	skin, eyes, mucous membranes
Notes	Wash hands after handling

Laboratory Handling Guidelines	
Biosafety Level	2 - refer to Biosafety Manual; contact EH&S for a copy
Training	EH&S Biosafety Training; Lab specific training
Engineering controls	BSL 2 conditions ONLY
PPE	Eye protection, gloves and lab coat
Waste	Biohazard - put in red biohazard bins

Agent Viability	
Disinfection	10% bleach, 70% ethanol
Survival outside host	Can survive in soil, water, sewage and plants for an extended period of time. Infected individuals host the agent within and rarely on skin surfaces.
Engineering controls	BSC if working with liquids; lids while working with high energy equipment
PPE	Eye protection, gloves, long sleeve or lab coat
Waste	Biohazard - put in red biohazard bins

Exposure and Spill procedures	
Mucous membranes	flush eyes, nose, mouth/throat for 15 minutes
Skin contact	Wash with soap and water for a minimum of 30 second for bare skin contact; for broken skin wash with soap and water for 15 minutes
Minor (small) spills	Notify all persons present in the area. Allow aerosols to settle. While wearing protective clothing, gently cover the spill with absorbent paper towel and apply appropriate disinfectant, starting at perimeter and working towards the centre. Allow sufficient contact time before clean up.
Major (large) spills	Contact EH&S immediately; after-hours contact University Police
Waste	Decontaminate all wastes before disposal.

References	
https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment/klebsiella.html	

