

CHARACTERISTICS	
Synonym or Cross Reference	Originally named Haemophilus pertussis F, Whooping cough
Disease	Causes whooping cough or pertussis.
Morphology	Small, Gram-negative coccobacilli, motile, aerobic, and produces pertussus (PT) toxins.
Zoonosis	None available

RISK GROUP & CONTAINMENT REQUIREMENTS	
ABSL-2	For all procedures utilizing infected animals.
BSL-2/BSL-2+	For all procedures involving suspected or known infectious specimen or cultures, work in a BSC unless otherwise approved and stated in lab-specific manual.
Risk Group 2	Agents that are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available.

LABORATORY HAZARDS	
Primary Hazards	Exposure of mucous membranes to infectious aerosols from manipulation of pertussis cultures or working with concentrated suspensions.
Sources	Cultures, frozen stocks and the use of toxins according to IBC protocols.
Lab Acquired Infections (LAIs)	Cases have been reported.

PERSONAL PROTECTIVE EQUIPMENT	
Additional Precautions	Additional PPE may be required depending on lab-specific SOPs and IBC Protocol.
Minimum PPE Requirements	Lab coat, disposable gloves, safety glasses, closed toed shoes, long pants.

SPILL PROCEDURES	
Large	Immediately notify all lab personnel and clear the area. Remove any contaminated PPE/clothing before exiting the lab. Lock all entry doors, post warning signage, and deny entry. Call DPS (213-740-4321) and ask to notify EH&S. Inform the PI and/or Lab Manager/Supervisor as soon as possible.
Small	Notify all lab personnel lab. Remove contaminated PPE and don new PPE. Cover spill area with absorbent material and add fresh 1:10 bleach:water. Allow 20 minutes (or as directed) contact time. After 20 minutes, clean up and dispose of materials.

VIABILITY	
Disinfection	Use 10 % dilution of household bleach (minimum 0.3% sodium hypochlorite) for 20 to 30 minutes, or an acceptable time approved by IBC and EH&S.
Survival Outside Host	Survives 45 days in soil, 6 days on glass, 5 days on clothes, 3 - 5 days on dry surfaces, 2 days on paper, and a few hours in respiratory secretions.

HEALTH HAZARDS	
Host Range	Humans
Incubation Period	5 to 10 days after exposure, but sometimes not for as long as 3 weeks.
Infectious Dose	Unknown
Modes of Transmission	Direct contact, inhalation of airborne droplets including aerosol droplets outside a BSC, and exposure of mucous membranes.
Signs and Symptoms	1st stage: 4-21 days - nasal mucous membrane inflammation, mucous filling of nasal cavity, sneezing, low-grade fever, mild/occasional cough. 2nd stage: 1-6 weeks - pertussis symptoms e.g., episodes of sudden and numerous rapid coughs with characteristic whooping sound. Vomiting and exhaustion could also occur. Serious complications of pertussis: cyanosis, pneumonia, bradycardia, seizures, encephalopathy, refractory pulmonary hypertension, and even death. Last (convalescent) stage: decrease in symptoms though coughing may last for several months.

EXPOSURE PROCEDURES	
Medical Follow-up	Visit USC’s designated healthcare provider. Bring a copy of this PSDS.
Mucous Membrane	Flush eyes for 5-10 minutes at eyewash station.
Other Exposures	Immediately wash affected area with soap and water for 15 minutes.
Reporting	Immediately report incident to supervisor, notify EH&S, and complete Manager’s Report.

MEDICAL PRECAUTIONS/TREATMENT	
Prophylaxis	Antibiotics are available after consultation with a physician. Alert physician to all allergies.
Surveillance	Monitor for symptoms of infection
Treatment	Azithromycin, Clarithromycin, and Erythromycin
USC Requirements	Immediately report any exposures to Environmental Health & Safety.
Vaccines	Whole cell (wP) and acellular (aP) vaccines. aP formulations: diphtheria, tetanus, and pertussis (DTaP); tetanus, diphtheria, and pertussis (Tdap). Babies and children younger than 7 years receive DTaP, older children and adults receive Tdap.

REFERENCES	
BMBL http://tiny.cc/cdc-bmb1	Canadian PSDS http://tiny.cc/canada-gov-psds
CDC https://www.cdc.gov/	NIH Guidelines http://tiny.cc/nih-bio-secure
Virginia Tech http://tiny.cc/vt-psds	