MATERIAL SAFETY DATA SHEET - INFECTIOUS SUBSTANCES

SECTION I - INFECTIOUS AGENT

NAME: Campylobacter fetus ssp. fetus

SYNONYM OR CROSS REFERENCE: C. fetus ssp. intestinalis, Vibrio fetus var. intestinalis

CHARACTERISTICS: Gram negative spiral S-shaped bacteria, motility; grow under reduced oxygen tension; growth at 25°C but not at 42°C

SECTION II - HEALTH HAZARD

PATHOGENICITY: Opportunistic human pathogen, capable of causing systemic infection in immunocompromised hosts; intestinal infection may be mild and overshadowed by a bacteremic illness, associated with high fever; may be complicated by endocarditis, pericarditis, thrombophlebitis, meningoencephalitis; causes abortion and infertility in cattle

EPIDEMIOLOGY: Worldwide

HOST RANGE: Cattle, humans

INFECTIONOUS DOSE: Not known

MODE OF TRANSMISSION: Ingestion of organisms in food; contact with infected animals

INCUBATION PERIOD: 3-5 days

COMMUNICABILITY: Communicable throughout course of infection; several days to several weeks

SECTION III - DISSEMINATION
RESERVOIR: Cattle, sheep, goats

ZOONOSIS: Yes, by contact with cattle

VECTORS: None

SECTION IV - VIABILITY

DRUG SUSCEPTIBILITY: Susceptible to erythromycin, ampicillin, gentamicin, and chloramphenicol

SUSCEPTIBILITY TO DISINFECTANTS: Susceptible to many disinfectants - 1% sodium hypochlorite, 70% ethanol, 2% glutaraldehyde, iodines, phenolics, formaldehyde

PHYSICAL INACTIVATION: Sensitive to moist heat (121°C for at least 15 min) and dry heat (160-170°C for at least 1 hour)

SURVIVAL OUTSIDE HOST: Liquid manure - 24 hours; linen - 3 hours; soil - up to 20 days

SECTION V - MEDICAL

SURVEILLANCE: Monitor for symptoms; confirmation by stool cultures and/or blood cultures

FIRST AID/TREATMENT: Antibiotic therapy for bacteremia, other endovascular manifestations

IMMUNIZATION: None

PROPHYLAXIS: Not usually administered

SECTION VI - LABORATORY HAZARDS

LABORATORY-ACQUIRED INFECTIONS: 2 reported laboratory-acquired infections with Vibrio fetus

SOURCES/SPECIMENS: Feces, blood

PRIMARY HAZARDS: Ingestion, accidental parenteral inoculation

SPECIAL HAZARDS: Infected lab animals

SECTION VII - RECOMMENDED PRECAUTIONS

CONTAINMENT REQUIREMENTS: Biosafety level 2 practices, containment equipment and facilities for activities with clinical materials known or potentially infected and cultures; animal biosafety level 2

PROTECTIVE CLOTHING: Laboratory coat; gloves when contact with infected materials is unavoidable

OTHER PRECAUTIONS: Good personal hygiene and frequent hand washing

SECTION VIII - HANDLING INFORMATION

SPILLS: Allow aerosols to settle; wearing protective clothing, gently cover spill with paper towels and apply 1% sodium hypochlorite, starting at perimeter and working towards the centre; allow sufficient contact time (30 min) before clean up

DISPOSAL: Decontaminate before disposal; steam sterilization, chemical disinfection

STORAGE: In sealed containers that are appropriately labelled

SECTION IX - MISCELLANEOUS INFORMATION

Date prepared: November 1999

Prepared by: Office of Laboratory Security, PHAC

Although the information, opinions and recommendations contained in this Material Safety Data Sheet are compiled from sources believed to be reliable, we accept no responsibility for the accuracy, sufficiency, or reliability or for any loss or injury resulting from the use of the information. Newly discovered hazards are frequent and this information may not be completely up to date.