

Public Health  
Agency of CanadaAgence de santé  
publique du Canada

Canada

Français	Contact Us	Help	Search	Canada Site
Home	Centres & Labs	Publications	Guidelines	A-Z Index
Child Health	Adult Health	Seniors Health	Surveillance	Health Canada

Home : Material Safety Data Sheets - Infectious Substances :

Office of  
Laboratory  
Security

MSDS

**MATERIAL SAFETY DATA SHEET - INFECTIOUS SUBSTANCES****SECTION I - INFECTIOUS AGENT****NAME:** *Campylobacter jejuni*, *C. coli*, *C. fetus* subsp. *jejuni***SYNONYM OR CROSS REFERENCE:** *Campylobacter* enteritis, Vibrionic enteritis, Traveller's diarrhea**CHARACTERISTICS:** Gram negative spiral and S-shaped bacteria; darting motility; microaerophilic; will grow only under reduced oxygen tension; optimal growth temperature is at 42C**SECTION II - HEALTH HAZARD****PATHOGENICITY:** Acute enteric disease of variable severity; diarrhea, abdominal pain, malaise, fever, nausea and vomiting; prolonged illness in up to 20% of patients; blood in association with mucus and WCBs present in liquid of foul smelling stools; typhoidal-like syndrome, reactive arthritis may occur ; rare cases of febrile convulsions, Guillain-Barré syndrome and meningitis**EPIDEMIOLOGY:** Important cause of diarrheal illness worldwide in all age groups (5-14% of diarrhea in world); common source outbreaks most often associated with foods, unpasteurized milk and unchlorinated water; largest number of sporadic cases in temperate climates occur in warmer months**HOST RANGE:** Humans, animals and birds**INFECTIOUS DOSE:** 500 organisms or less (by ingestion)**MODE OF TRANSMISSION:** By ingestion of organisms in undercooked food or in unpasteurized milk or water; from contact with infected pets (puppies and kittens), farm animals or infected infants; possibly from cross-contamination from these sources to foods eaten uncooked or poorly refrigerated**INCUBATION PERIOD:** 2-5 days, with a range of 1-10 days; dose-dependent**COMMUNICABILITY:** Communicable throughout course of infection; individuals not treated with antibiotics excrete organisms for as long as 2-7 weeks; chronic carrier state is unusual**SECTION III - DISSEMINATION****RESERVOIR:** Animals - swine, cattle, sheep, cats, dogs, other pets and rodents; birds, including poultry**ZOONOSIS:** Yes - chronic carrier state established and animals constitute primary source of infection

**VECTORS:** None

## SECTION IV - VIABILITY

**DRUG SUSCEPTIBILITY:** Sensitive to erythromycin, tetracyclines, fluoroquinolones and aminoglycosides

**DRUG RESISTANCE:** Single- and multiple-drug resistant strains have been reported

**SUSCEPTIBILITY TO DISINFECTANTS:** Susceptible to many disinfectants - 1% sodium hypochlorite, 70% ethanol or isopropyl alcohol, 2% glutaraldehyde, iodines, phenolics, formaldehyde; commonly used disinfectants for drinking water treatment (0.1 mg/l of free chlorine, and 1 mg/l of monochloramine) are sufficient to kill *C. jejuni*

**PHYSICAL INACTIVATION:** Sensitive to moist heat (121°C for at least 15 min) and dry heat (160-170°C for at least 1 hour); highly sensitive to gamma irradiation and UV radiation

**SURVIVAL OUTSIDE HOST:** Will survive in moist environments (including droplets), especially at lower temperatures, but cannot tolerate drying; Feces - up to 9 days; milk - 3 days; glass slides - 24 hours; water - 2 to 5 days

## SECTION V - MEDICAL

**SURVEILLANCE:** Monitor for symptoms; confirmation by isolation from stool

**FIRST AID/TREATMENT:** Rehydration and electrolyte replacement; short antibiotic course for severe or prolonged illness

**IMMUNIZATION:** None

**PROPHYLAXIS:** Not usually administered

## SECTION VI - LABORATORY HAZARDS

**LABORATORY-ACQUIRED INFECTIONS:** 2 reported cases of laboratory-acquired infection

**SOURCES/SPECIMENS:** Feces, blood

**PRIMARY HAZARDS:** Ingestion, parenteral inoculation

**SPECIAL HAZARDS:** Infected laboratory 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; animals biosafety level 2 facilities and practices

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

**OTHER PRECAUTIONS:** Good personal hygiene and frequent handwashing

### 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, incineration

**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.

Copyright ©  
Health Canada, 2001

[\[Material Safety Data Sheets - Index\]](#)

Last Updated: 2001-01-23



[Important Notices](#)