Pathogen Safety Data Sheet

Section 1 - Infectious Agent

Agent Name: **Alcaligenes faecalis ssp. faecalis**

Agent Type: Bacteria

Taxonomy:

Family: Genus: Alcaligenes

Species: *A. faecalis*

Subspecies/Strain/Clonal Isolate: *A. faecalis ssp. faecalis*

Synonym/Cross Reference
None

Characteristics

Brief Description: Gram-negative, rod shaped aerobic organism, 0.5 - 1.0 um in diameter. Has a peritricous flagellar arrangement which allows for motility. Optimal growth temperature is between 20 - 37 degrees C.

Properties: Properties that contribute to risk, such as modifications (i.e., from a parental strain), sporulation, toxin production, oxygen requirements, enzymatic activity, life cycle (if relevant), reproduction.

Section 2 - Hazard Identification

Pathogenicity/Toxicity

Exists in the alimentary canal of humans. Infections do not occur in healthy humans. Many infections are due to contamination of medical devices. Has been found to cause urinary tract infections in humans. Has also been shown to be a causative agent in postoperative endophthalmitis in the human eye.

Predisposing Factors: Opportunistic infections have been associated with clinical infections in humans with compromised and uncompromised immune systems.

Communicability
Most common method of communication is fecal oral route; contaminated medical equipment.

Epidemiology
World-wide. Most commonly found in clinical laboratories.

Host Range

Natural Host(s): Humans, chickens, turkeys and other birds.

Other Host(s): None

Infectious Dose
Unknown

Incubation Period
Unknown

Section 3 - Dissemination

Reservoir
Humans

Vectors
None

Zoonosis / Reverse Zoonosis
Domesticated poultry

Section 4 - Dissemination

Drug Susceptibility
Most strains appeared to display multiple resistance to numerous antibiotics, including β-lactams (amoxicillin, ticarcillin and aztreonam), aminoglycosides and quinolones but were susceptible to combinations of amoxicillin or ticarcillin plus clavulanic acid and to the cephalosporins.

Drug Resistance
None described

Susceptibility to Disinfectants
70% ethyl alcohol or 0.125% glutaraldehyde, all with a contact time of 1 minute or 5mg/L of hypochlorite with a contact time of 5 minutes.

Physical Inactivation
Inactivated by heat (70 degrees C for 1 min.), hydrostatic pressure (450 MPa at 15 degrees C for 30 s) and gamma irradiation.

Survival Outside Host
Soil and water borne pathogen. No other information available.

Section 5 - First Aid and Medical

Surveillance
Infection can be confirmed by culturing and identification of bacteria from the infection site. Note: All diagnostic methods are not necessarily available in all countries

First Aid / Treatment
Antibiotic therapy may be required in more serious cases particularly in young, elderly or immunocompromised patients.

Immunization
None

Prophylaxis
None

Section 6 - Laboratory Hazards

Laboratory Acquired Infections

None reported

Sources / Specimens
Numerous strains have been isolated from clinical material such as blood, urine and feces.

Primary Hazards
Parenteral inoculation of bacteria.

Special Hazards
None

Section 7 - Exposure Controls and Personal Protection

Risk Group Classification

What is the Risk Group classification in humans and animals for the pathogen?

Human Risk Group Classification RG2 Animal Risk Group Classification RG1

Containment Requirements

Containment Level: CL2

Containment Zone Requirements:

Containment Level 2 facilities, equipment, and operational practices for work involving infectious or potentially infectious materials, animals, or cultures.

Protective Clothing

Lab coat. Gloves when direct skin contact with infected materials or animals is unavoidable. Eye protection must be used where there is a known or potential risk of exposure to splashes.
If there are no special hazards for this agent enter “none”.

Other Precautions

All procedures that may produce aerosols, or involve high concentrations or large volumes should be conducted in a biological safety cabinet (BSC). The use of needles, syringes, and other sharp objects should be strictly limited. Additional precautions should be considered with work involving animals or large scale activities.

Section 8 - Handling and Storage

Spills

Allow aerosols to settle. Wearing protective clothing, gently cover the spill with absorbent paper towel and apply suitable disinfectant, starting at the perimeter and working towards the centre. Allow sufficient contact time before clean up.

Disposal

Decontaminate all wastes that contain or have come in contact with the infectious organism by autoclave, chemical disinfection, gamma irradiation, or incineration before disposing.

Storage

The infectious agent should be stored in appropriately labelled leak-proof containers in a locked area. Containers of infectious material or toxins stored outside the containment zone must be labelled, leakproof, impact resistant, and kept either in locked storage equipment or within an area with limited access.

Section 9 - Regulatory Information

The import, transport, and use of pathogens in Canada is regulated under many regulatory bodies, including the Public Health Agency of Canada, Health Canada, Canadian Food Inspection Agency, Environment Canada, and Transport Canada. Users are responsible for ensuring they are compliant with all relevant acts, regulations, guidelines, and standards.

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Revisions were made to Sections:

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