MATERIAL SAFETY DATA SHEET - INFECTIOUS SUBSTANCES

SECTION I - INFECTIOUS AGENT

NAME: Diphtheroids

SYNONYM OR CROSS REFERENCE: Any member of Corynebacterium other than C. diphtheriae; pseudodiphtheria; Propionibacterium; C. bovis, C. xerosis, C. pyogenes, C. haemolyticum, C. pseudotuberculosis, C. ulcerans

CHARACTERISTICS: Gram positive straight to slightly curved rods; nonsporulating; non-motile; irregularly stained, sometimes granular; may be arranged in angular and palisade groups

SECTION II - HEALTH HAZARD

PATHOGENICITY: Includes human and animal parasites and pathogens as well as nonpathogens; C. haemolyticum - associated with pharyngitis and skin ulcers in man; C. pseudotuberculosis - usually disease of lower animals but can cause zoonotic disease in humans; C. pyogenes - toxicogenic in animals and isolated from human pharyngitis and skin lesions; C. ulcerans - toxigenic causing nasopharyngeal infections; C. xerosis - opportunistic species found in conjunctival sac and on skin and mucous membranes

EPIDEMIOLOGY: Worldwide

HOST RANGE: Humans, many domestic animals - cattle, sheep, goats, horses, pigs

INFECTIONOUS DOSE: Unknown

MODE OF TRANSMISSION: Usually opportunistic pathogens; contact with infected animals or food

INCUBATION PERIOD: Unknown

COMMUNICABILITY: Low

SECTION III - DISSEMINATION
RESERVOIR: Many domestic animals - cattle, sheep, goats, pigs, horses; deer; mice and rats

ZOODONOSIS: Yes, depending on species

VECTORS: None

SECTION IV - VIABILITY

DRUG SUSCEPTIBILITY: Sensitive to penicillin, erythromycin and tetracyline

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

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: Some species do not survive well outside of host

SECTION V - MEDICAL

SURVEILLANCE: Monitor for symptoms; immunological techniques are not available

FIRST AID/TREATMENT: Antibiotic therapy

IMMUNIZATION: None

PROPHYLAXIS: Antibiotic prophylaxis

SECTION VI - LABORATORY HAZARDS

LABORATORY-ACQUIRED INFECTIONS: 33 reported cases of C. diphtheria; no reported cases with other Corynebacterium spp.

SOURCES/SPECIMENS: Exudates or secretions of the nose, throat, pharynx; wound exudates; blood; skin

PRIMARY HAZARDS: Inhalation of infectious aerosols and droplets; accidental parenteral inoculation; ingestion

SPECIAL HAZARDS: None

SECTION VII - RECOMMENDED PRECAUTIONS

CONTAINMENT REQUIREMENTS: Biosafety level 2 practices, containment equipment and facilities for all activities involving known or potentially infected clinical materials or cultures; animal-biosafety level 2 facilities for studies utilizing infected laboratory animals
PROTECTIVE CLOTHING: Laboratory coat; gloves when direct contact with infectious materials is unavoidable

OTHER PRECAUTIONS: None

SECTION VIII - HANDLING INFORMATION

SPILLS: Allow aerosols to settle; wearing protective clothing, gently cover spill with absorbent paper towel 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: September 1996 Prepared by: Office of Biosafety LCDC

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