MATERIAL SAFETY DATA SHEET - INFECTIONOUS SUBSTANCES

SECTION I - INFECTIOUS AGENT

NAME: Bluetongue virus

SYNONYM OR CROSS REFERENCE: None

CHARACTERISTICS: Double capsid shell, naked, icosahedral virion; 60-80 nm diameter; segmented, linear, double-stranded RNA genome; Reoviridae; genus Orbivirus

SECTION II - HEALTH HAZARD

PATHOGENICITY: A non-contagious, insect-transmitted, viral disease of sheep, cattle, goats, and wild ruminants

EPIDEMIOLOGY: The disease occurs widely on the African continent and to a lesser extent in North America, Asia, and Europe. In Canada, seroreactors are restricted to the Okanagan Valley

HOST RANGE: Sheep, cattle, goats and wild ruminants

INFECTIONOUS DOSE: Not known

MODE OF TRANSMISSION: Non-contagious; biologically transmitted by biting insects of the genus Culicoides

INCUBATION PERIOD: The usual incubation period in sheep is 5-10 days

COMMUNICABILITY: Non-contagious

SECTION III - DISSEMINATION

RESERVOIR: Cattle and some wild ruminant species may act as reservoirs for sheep

ZOONOSIS: None

VECTORS: Biting insects of the genus Culicoides

SECTION IV - VIABILITY

DRUG SUSCEPTIBILITY: Not applicable

SUSCEPTIBILITY TO DISINFECTANTS: Susceptible to 95% ethanol, 2% formalin, 5% lysisol, 2% sodium hypochlorite but requires prolonged exposure

PHYSICAL INACTIVATION: Stable at acidic pH (3.0-3.5), sensitive to heating above 50°C

SURVIVAL OUTSIDE HOST: Survives for months at 4°C and 20°C
SECTION V - MEDICAL

SURVEILLANCE: Not applicable
FIRST AID/TREATMENT: Not applicable
IMMUNIZATION: Not applicable
PROPHYLAXIS: Not applicable

SECTION VI - LABORATORY HAZARDS

LABORATORY-ACQUIRED INFECTIONS: None
SOURCES/SPECIMENS: Whole blood
PRIMARY HAZARDS: None
SPECIAL HAZARDS: None

SECTION VII - RECOMMENDED PRECAUTIONS

CONTAINMENT REQUIREMENTS: Bluetongue virus is considered to be not indigenous to Canada. Agriculture Canada will establish conditions under which the virus is used and maintained
PROTECTIVE CLOTHING: Solid front gown
OTHER PRECAUTIONS: None

SECTION VIII - HANDLING INFORMATION

SPILLS: Cover spill with absorbent paper towel and apply 2% sodium hypochlorite starting at the perimeter and working towards the centre; wait 30 min before clean up
DISPOSAL: Decontaminate all wastes before disposal; steam sterilization, chemical disinfection, incineration
STORAGE: Sealed containers, appropriately labelled

SECTION IX - MISCELLANEOUS INFORMATION

Date prepared: November 1999
Prepared by: Office of Laboratory Security, PHAC

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