

## Section 1 - Infectious Agent

**Agent Name:** Halobacterium salinarum

**Agent Type:** Bacteria

**Taxonomy:**

Family: Halobacteriaceae

Genus: Halobacterium

Species: *H. salinarium*

Subspecies/Strain/Clonal Isolate:

### Synonym/Cross Reference

Pseudomonas salinaria; Flavobacterium salinarium; Halobacter salinaria;

### Characteristics

**Brief Description:** Halobacterium salinarum is an extremely halophilic marine Gram-negative obligate aerobic archaeon. Despite its name, this microorganism is not a bacterium, but rather a member of the domain Archaea. Halobacteria are single-celled, rod-shaped microorganisms that are among the most ancient forms of life and appeared on Earth billions of years ago.

**Properties:** Not applicable

## Section 2 - Hazard Identification

### Pathogenicity/Toxicity

Not pathogenic

**Predisposing Factors:** None.

### Communicability

Not infectious.

### Epidemiology

It is found in salted fish, hides, hypersaline lakes, and salterns.

### Host Range

**Natural Host(s):** None

**Other Host(s):** Not applicable.

### Infectious Dose

Not applicable.

### Incubation Period

Not applicable.

## Section 3 - Dissemination

### Reservoir

It is found in salted fish, hides, hypersaline lakes, and salterns.

### Vectors

None.

<b>Zoonosis / Reverse Zoonosis</b> None.
<b>Section 4 - Dissemination</b>
<b>Drug Susceptibility</b> Not applicable
<b>Drug Resistance</b> Not applicable
<b>Susceptibility to Disinfectants</b> Susceptibility has been shown for 1% sodium hypochlorite, 2% glutaraldehyde, 70% ethanol, iodines, phenolics, and formaldehyde
<b>Physical Inactivation</b> Inactivated by moist heat (121°C for 15 min - 30 min) and dry heat (160-170°C for 1-2 hours)
<b>Survival Outside Host</b> Naturally found in salted fish, hides, hypersaline lakes, and salterns.
<b>Section 5 - First Aid and Medical</b>
<b>Surveillance</b> Not applicable
<b>First Aid / Treatment</b> Not applicable
<b>Immunization</b> Not applicable
<b>Prophylaxis</b> Not applicable
<b>Section 6 - Laboratory Hazards</b>
<b>Laboratory Acquired Infections</b> None reported.
<b>Sources / Specimens</b> Not applicable
<b>Primary Hazards</b> None.
<b>Special Hazards</b> None.
<b>Section 7 - Exposure Controls and Personal Protection</b>

**Risk Group Classification**

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

Human Risk Group Classification RG1

Animal Risk Group Classification RG1

**Containment Requirements**

Containment Level: CL1

**Containment Zone Requirements:**

Containment Level 1 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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**References**

Risk Group determination from "PHAC Biological Agent Search".  
Wikipedia  
Microbe Wiki.