

TITLE: Material Safety Data Sheet ADVANTIGEN™4.1	REVISION: 1
EFFECTIVE DATE: 04 September 2008	

## MATERIAL SAFETY DATA SHEET

### **PRODUCT IDENTITY**

ADVANTIGEN™4.1

*Aeromonas salmonicida* - *Vibrio anguillarum* serotypes 01 & 02 - *Vibrio salmonicida*  
Bacterin

### **SECTION I – MANUFACTURER**

Manufacturer's name:	Microtek International Inc.
Address:	6761 Kirkpatrick Crescent, Saanichton, B.C., Canada, V8M 1Z8
Telephone number:	1-800-667-5062 (toll free in Canada) or (250) 652-4482
Supplier's name:	Microtek International Inc.
Contact:	Elizabeth Crump
Emergency telephone number:	(250) 652-4482 ext 222
Prepared by:	Emily Coble
Date prepared:	04 September 2008

### **SECTION II – HAZARDOUS INGREDIENTS INFORMATION**

Hazardous components (specific chemical identity, common name(s)):  
Bacterial endotoxins, formalin, oil in water emulsion. Residual formalin level less than 0.5 mg/mL. In this amount, respiratory protection not required. Formalin is a known carcinogen.

### **SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS**

Physical state	Liquid, oily solution
Vapour pressure	Not known
Freezing point	Not known
Odour & appearance	Musty, tan
Vapour density	Not available
pH	6.8 – 7.0
Odour threshold	Not known
Evaporation rate	Not known
Boiling point	100°C
Specific gravity	Not known
Coefficient of water/oil distribution	Not known

### **SECTION IV – FIRE AND EXPLOSION HAZARD DATA**

Flash Point (Method used)	>100°C
Flammable limits	Not known
Extinguishing	Suitable extinguishing agents are CO <sub>2</sub> , powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special fire fighting procedures	Not applicable
Unusual fire and explosion hazards	In case of fire, carbon monoxide and carbon dioxide can be released.

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## **SECTION V – REACTIVITY DATA**

Unstable	No
Conditions to avoid	May react with strong oxidizing agents
Stable	Stable at environment temperature (2-7°C)
Incompatibility (materials to avoid)	Not known

## **SECTION VI – TOXICOLOGICAL PROPERTIES**

<b>Routes of entry</b>	
Inhalation	May be hazardous. Use in ventilated area.
Skin:	May be hazardous. Eye contact may cause burning.
Ingestion:	May be hazardous. May cause nausea.
Health hazards (acute & chronic):	Allergic response to endotoxin. Formalin is a known carcinogen.
Signs & symptoms of exposure	Allergic reactions. Danger is primarily due to accidental injection.
Carcinogenicity	Not known
Reproductive toxicity	Not known
Teratogenicity	Not known
Mutagenicity	Not known
Medical conditions aggravated by exposure	Not known

## **SECTION VII – PREVENTATIVE MEASURES**

Protective equipment to be used:	Protective gloves and protective goggles
Respiratory protection (specific type)	Use suitable respiratory protective device in case of insufficient ventilation
Ventilation	Use in ventilated area
Protective gloves	Highly recommended
Other protective clothing or equipment	Wear protective goggles
Steps to be taken in case of leak or spill	Flush with water
Waste disposal method	Dispose of any unused portion according waste disposal requirements
Handling & storage precautions	Store at 2 - 7°C
Other precautions	None

## **SECTION VIII – FIRST AID MEASURES**

Eye contact	Flush with copious amounts of water for 15 minutes, if symptoms persist contact physician immediately.
Skin contact	Flush with water and soap and rinse thoroughly. If skin irritation continues, consult physician.
Inhalation	Supply fresh air, consult physician if symptoms persist.
Ingestion:	Do not induce vomiting – contact physician immediately.
Injection	If material is accidentally injected, seek immediate medical attention. Severe burning and/or a sense of numbness may occur at the injection site. If neglected, it may lead to loss of limb and / or life.
Treatment	Should be based on severity of allergic reaction and should include antibiotics since needles may be contaminated during injection process.

Note: the above mentioned data is based on our present knowledge of this product.