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SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Identification of the substance or mixture**

**Product code** AVR-H500-01  
**Product name** HUVEC

**Company/undertaking identification**

SMSbiotech  
1825 Diamond Street  
Suite 101  
San Marcos, CA 92078  
+1-760-290-3406

**For research use only. Not intended for human or animal diagnostic or therapeutic uses.**

SECTION 2: Hazards identification

**GHS - Classification**

**Signal Word**  
Not Hazardous

**Health hazards**  
Not Hazardous

**Physical hazards**  
Not Hazardous

**Principle Routes of Exposure**  
**Potential Health Effects**

<b>eyes</b>	May cause eye irritation with susceptible persons.
<b>Skin</b>	May cause skin irritation in susceptible persons.
<b>inhalation</b>	May be harmful by inhalation.
<b>Ingestion</b>	May be harmful if swallowed.

**Specific effects**

<b>Carcinogenic effects</b>	None
<b>Mutagenic effects</b>	None
<b>Reproductive toxicity</b>	None
<b>Sensitization</b>	None

**Target Organ Effects** No known effects under normal use conditions

**HMIS**

Health	0
Flammability	0
Reactivity	0

## SECTION 3: Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
Ammonium meta-Vanadate	7803-55-6	-	<0.01
Tin compounds	-	Not Listed	<0.01
Sodium selenite	10102-18-8	-	<0.00011

The product contains no substances which at their given concentration, are considered to be hazardous to health.

## SECTION 4: First aid measures

<b>Skin contact</b>	Rinse cautiously with water for several minutes. If symptoms occur, obtain medical advice.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.
<b>inhalation</b>	Remove to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.
<b>Notes to Physician</b>	Treat symptomatically.

## SECTION 5: Firefighting measures

<b>Suitable extinguishing media</b>	Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical.
<b>Special protective equipment for firefighters</b>	Wear self-contained breathing apparatus and protective suit.

## SECTION 6: Accidental release measures

<b>Personal precautions</b>	Use personal protection equipment.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so.

See Section 12 for more information.

## SECTION 7: Handling and storage

<b>Handling</b>	Always wear recommended Personal Protective Equipment. No special handling advices are necessary.
<b>Storage</b>	Keep in a dry, cool and well-ventilated place.

## SECTION 8: Exposure controls/personal protection

### Exposure Limits

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Ammonium meta-Vanadate	None	None	None	None
Tin compounds	2 mg/m <sup>3</sup>	None	2 mg/m <sup>3</sup>	None
Sodium selenite	0.2 mg/m <sup>3</sup>	None	0.2 mg/m <sup>3</sup>	None

**Engineering measures** Ensure adequate ventilation, especially in confined areas.

### Personal Protective Equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment.

**Hand protection** Impervious gloves.

**Eye protection** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection** Lightweight protective clothing.

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** Prevent product from entering drains.

## SECTION 9: Physical and chemical properties

### General information

<b>Form</b>	Liquid
<b>Appearance</b>	No information available
<b>Odor</b>	No data available
<b>Odor Threshold</b>	No data available
<b>Boiling point / boiling range</b>	°C No data available °F No data available
<b>Melting point / melting range</b>	°C No data available °F No data available
<b>flash point</b>	°C No data available °F No data available
<b>Autoignition Temperature</b>	°C No data available °F No data available
<b>Oxidizing properties</b>	No information available
<b>Water solubility</b>	soluble
<b>Viscosity</b>	No data available

## SECTION 10: Stability and reactivity

**Stability** Contact with acids or bleach liberates toxic gases. DO NOT ADD acids or bleach to any liquid wastes containing this product.

**Materials to avoid** sodium hypochlorite.  
**Hazardous decomposition products** None under normal use conditions.  
**polymerization** Hazardous polymerization does not occur.

SECTION 11: Toxicological information

**Acute Toxicity**

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Ammonium meta-Vanadate	No data available	2102 mg/kg (Rat)	=7800µg/m <sup>3</sup> (Rat)
Tin compounds	No data available	No data available	No data available
Sodium selenite	= 7 mg/kg (Rat)	No data available	No data available

**Principle Routes of Exposure**

**Potential Health Effects**

**eyes** May cause eye irritation with susceptible persons.  
**Skin** May cause skin irritation in susceptible persons.  
**inhalation** May be harmful by inhalation.  
**Ingestion** May be harmful if swallowed.

**Carcinogenic effects** None.  
**Mutagenic effects** None.  
**Reproductive toxicity** None.  
**Sensitization** None.

**Target Organ Effects** No known effects under normal use conditions

SECTION 12: Ecological information

**Ecotoxicity** Daphnia magna.  
**Mobility** No information available.  
**Biodegradation** Inherently biodegradable.  
**Bioaccumulation** Material does not bioaccumulate.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Tin compounds		Daphnia magna EC50=55 mg/L (48 h)			

SECTION 13: Disposal considerations

Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

**IATA**

**Proper Shipping Name** No dangerous good in sense of these transport regulations  
**Hazard Class** None  
**Subsidiary class** None  
**Packing group** None

UN-No None

SECTION 15: Regulatory information

Component	TSCA
Ammonium meta-Vanadate 7803-55-6 (<0.01)	Listed
Tin compounds ( <0.01 )	-
Sodium selenite 10102-18-8 (<0.00011)	Listed

**US Federal Regulations**

**SARA 313**

This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers:.

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values
Ammonium meta-Vanadate	7803-55-6	<0.01	1.0
Sodium selenite	10102-18-8	<0.00011	1.0

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product contains the following HAPs:.

Component	CAS-No	Weight %	HAPS data
Sodium selenite 10102-18-8 (<0.00011)	10102-18-8	<0.00011	Present (including any unique chemical substance that contains Selenium as part of its infrastructure)

**US State Regulations**

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
Ammonium meta-Vanadate	Listed	-	Listed	-	-
Tin compounds	Listed	-	-	-	-
Sodium selenite	Listed	-	Listed	Listed	Listed

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**WHMIS Hazard Class**

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

SECTION 16: Other information

Reason for revision SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Revision date 12-Dec-2019  
Product code AVR-H500-01

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"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE"

**End of Safety Data Sheet**