

## MATERIAL SAFETY DATASHEET

Date prepared: 6 Nov 2010

Reviewed on: 13 Nov 2010

### SECTION 1: CHEMICAL IDENTIFICATION

Code #: PC0701-100g / 500g / 1kg/ 2g-s / 10g-s

Name: Agarose

### SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name:	CAS #:	RTECS #:	%:
Hydroxyethyl Agarose	This product is not classified as dangerous.		

### SECTION 3: HAZARDS IDENTIFICATION

This product has not been classified as dangerous.

#### Health Effects

Not expected to present an inhalation hazard.

May cause mild irritation on prolonged or repeated contact in some individuals.

Direct contact may cause transient eye irritation or discomfort in some individuals.

No known ingestion hazard.

#### Chronic Effects / Target Organ Effects

None known

#### Medical Conditions Aggravated by Exposure

None known

#### Environmental Effects

None known

### SECTION 4: FIRST-AIDS MEASURES

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

In case of contact, immediately flush eyes with copious amounts of water for at least 15 minutes.

Get medical attention if irritation persists.

In case of contact with skin, immediately wash skin with soap and copious amounts of water.

Remove contaminated clothing and shoes. Get medical attention if symptoms develop. Wash clothing and shoes before reuse.

If swallowed, wash out mouth with water provided the person is conscious. Do not induce vomiting unless directed to do so by medical personnel.

Call a physician.

### SECTION 5: FIRE FIGHTING MEASURES

#### Extinguishing Media

Water spray, carbon dioxide, dry chemical powder or appropriate foam

#### Special Exposure Hazards

Pairing Nature with Scientific Discoveries

The product is expected to burn under fire conditions generating toxic and irritating gases and smoke.

Evacuate area and fight fire from safe distance.

#### Special Protective Equipment

Wear approved pressure-demand self-contained breathing apparatus and full protective gear. As with many organic powders, high dust concentrations may create explosion hazard when exposed to sources of ignition. Powder handling systems may require additional protective measures such as explosion venting and inerting. Provide appropriate bonding and grounding. Refer to NFPA 69 and NFPA 77.

Dust Layer 205°C LEL = 0.40 oz/ft<sup>3</sup>

Dust Cloud 440°C LEL = 0.40 oz/ft<sup>3</sup>

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

Prevent skin/eye contact.

Use personal protective clothing as needed.

Isolate spill area, preventing entry by unauthorized persons.

Minimize entry of material into sewers and drainage systems. Refer to permit discharge limitations if applicable.

Clean up spills immediately, observing precautions in the material safety data sheet and label.

Minimize dust generation. Dispose into a chemical waste container.

### **SECTION 7: HANDLING AND STORAGE**

Use with adequate ventilation as necessary or desired.

Wash thoroughly after handling.

Remove contaminated clothing and wash before reuse.

Follow all MSDS/label precautions.

Follow precautions for packaging that may produce residues.

Avoid contact with skin and eyes.

Avoid raising dusts.

Keep container closed when not in use.

Store in a cool, dry, well-ventilated location.

For laboratory or R&D/experimental use only.

### **SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION**

OSHA PEL particulates not otherwise regulated = 15 mg/m<sup>3</sup> as total dust; 5 mg/m<sup>3</sup> as respirable fraction.

ACGIH TLV particles not otherwise specified = 10 mg/m<sup>3</sup> as total particles; 3 mg/m<sup>3</sup> as inhalable particles.

Use process enclosures, local exhaust ventilation, or other engineering controls as needed.

Use an approved air-purifying respirator as needed. Consult with respirator manufacturer to determine respirator selection, use and limitations.

Use safety glasses. Where contact with the eyes is likely, use chemical goggles.

Use chemical-resistant gloves as needed.

Use clean protective body covering clothing as needed to minimize contact with clothing and skin.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### Appearance and Odor

White amorphous powder

Odorless

Flash Point: N/A

Viscosity: N/A

Solubility: 10% with difficulty

Density (water = 1): 1.49 gm/cm<sup>3</sup>

Partition Coefficient: N/A

Boiling Point: N/A

Melting Point: N/A

pH: N/A

## **SECTION 10: STABILITY AND REACTIVITY**

### Stability

Stable

### Conditions to Avoid

Avoid contact with acids and strong oxidizers

### Hazardous Combustion or Decomposition Products

Oxides of carbon and smokes

## **SECTION 11: TOXICOLOGICAL INFORMATION**

Not available.

## **SECTION 12: ECOLOGICAL INFORMATION**

Data not yet available.

## **SECTION 13: DISPOSAL CONSIDERATIONS**

Dispose of unused product, residues, and containers according to federal, state and local environmental regulations.

## **SECTION 14: TRANSPORT INFORMATION**

Not expected to be hazardous for transport.

## **SECTION 15: REGULATORY INFORMATION**

### U.S. Regulations

This product meets the following SARA 311/312 hazard categories: None

This product contains the following SARA 302 Extremely Hazardous Substances: None

This product contains the following SARA 313 Toxic Chemicals: None

This product contains the following CERCLA Hazardous Substances: None

Components are listed in the TSCA inventory

#### E.U. Regulations

This preparation does not meet the dangerous preparations classification criteria under 1999/45/EC. Components are listed on EINECS or exempted from listing.

#### Canadian Regulations

This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and it contains the information required by the CPR.

This product does not meet WHMIS criteria for classification as a hazardous material.

Components are listed on the DSL.

#### Other Information

NFPA/HMIS Ratings: Health = 1; Fire = 1; Reactivity = 0; NFPA/Special = None

### **SECTION 16: OTHER INFORMATION**

The information contained in this MSDS relates only to the material(s) designated and does not relate to use(s) in combination with any other material, process(es) and/or chemical reaction(s). Vivantis Technologies Sdn. Bhd. provides this information in good faith, from sources believed to be accurate; however, Vivantis assumes no liability for its accuracy or completeness, and thus shall not be held liable for any damage resulting from handling or from contact with the above product.

All Vivantis products are supplied for manufacturing, research and laboratory use only. Researchers and laboratory personnel intending to use any of these products for medical investigation on humans are solely responsible for such use and for compliance with the pertinent regulations of the United States Food & Drug Administration (US-FDA) and other regulations. We do not assume liability for damages resulting from the handling, use and/or disposal of these products, from their use in violation of patent or other rights or reliance upon this information.