

# Laminar Sciences Corporation

## Safety Data Sheet

Revision 1.0

Nov 9, 2016

### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1. Product Identifiers

Product Name	Laminar Sciences Corp KaleidoFlow™ Rheoscopic Fluid
Product Formulation	PRO-A
General Use	As a liquid for fluid flow visualization or kinetic art pieces

#### 1.2. Relevant Identified Uses

Scientific	Fluid flow visualization
Artistic Works	Kinetic art pieces using fluid flow

#### 1.3. Supplier Details

Company	Laminar Sciences Corporation 710 La Prenda Road Los Altos, CA 94024
Telephone	408-821-7843

#### 1.4. Emergency Telephone Number

Telephone	408-821-7843
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### 2. HAZARDS IDENTIFICION

#### 2.1. Classification of the Substance or Mixture

Classified Components	No Classified Components
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)	Not Classified

#### 2.2. GHS Label Elements, Including Precautionary Statements

Pictogram	Not applicable
Signal Word	No signal word
Hazard statements	No known health effects or hazards
Precautionary statements	Not applicable

#### 2.3. Hazards Not Otherwise Classified (HNOC) or Not Covered by GHS

Hazards	None
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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1. Substances

See below

#### 3.2. Ingredients

Name	CAS Number
Vermiculite	1318-00-9
Deionized Water	7732-18-5

#### 3.3. Hazardous Components

One of the ingredients may contain trace levels of naturally occurring crystalline silica (Quartz – CAS # 1408-60-7). Supplier has test results showing this component of the ingredient is not biologically significant and therefore, incapable of causing harm under normal conditions of use or as a result of extreme upset.

#### 3.4. Additional Information

None

### 4. FIRST AID MEASURES

#### 4.1. Description of First Aid Measures

Inhalation	If adverse effects occur, remove to an uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.
Skin Contact	Use good hygiene practices including washing of skin with soap and water. If irritation occurs, seek medical attention.
Eye Contact	In case of eye contact, flush eyes with water. If necessary, seek medical attention.
Ingestion	Rinse mouth thoroughly. If a large amount is swallowed, seek medical attention.

#### 4.2. Most Important Symptoms / Effects, Acute and Delayed

Irritation. Nausea. Headache. Shortness of breath

#### 4.3. Indication of any Immediate Medical Attention and Special Treatment Needed

Treat symptomatically. Seek medical attention if large quantities of product have been ingested or inhaled.

## **5. FIREFIGHTING MEASURES**

### **5.1. Extinguishing Media**

This product is not flammable. Use fire extinguishing media appropriate for surrounding materials.

### **5.2. Special Hazards Arising from the Substance or Mixture**

Hazardous combustion products do not occur

### **5.3. Advice for Firefighters**

No specific fire-fighting procedures are needed

## **6. ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal Precautions, Protective Equipment and Emergency Procedures**

Follow precautions for safe handling as described in this Safety Data Sheet. If a spill occurs, stop the spill and contain spilled material by diking or using inert absorbent.

### **6.2. Environmental Precautions**

Products are naturally occurring and nonhazardous. Handle waste in accordance with section 13 recommendations.

### **6.3. Methods and Material for Containment and Clean Up**

Contain spills and dispose of waste in accordance with section 13. If spilled product dries out completely, clean residue by wetting it first, then wiping up and disposing of it in accordance with section 13.

### **6.4. Reference to Other Sections**

For personal protection see section 8. For waste disposal see section 13

## **7. HANDLING AND STORAGE**

### **7.1. Precautions for Safe Handling**

Wear personal protective equipment in accordance with those recommendations provided in Section 8. Use good hygiene practices and wash hands and face before eating, drinking or conducting personal hygiene. Reduce contamination from clothing and protective equipment before entering eating areas.

### **7.2. Conditions for Safe Storage, Including any Incompatibilities**

Store in cool, dry conditions in sealed containers.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Exposure Limits

Engineering Controls	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. If there is possibility of product drying out completely to a residue, ventilation should be provided to control dust inhalation.
Respiratory Protection	Not required for typical uses of this product. Respiratory protection and ventilation should be provided in cases where this product might be aerosolized or where this product's dried residue be abraded to create dust.
Eye / Face Protection	Wear eye protection where there is danger of eye contact. Provide eyewash station.
Skin and Body Protection	Use of gloves is suggested. Wash hands and exposed body parts after handling this product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Appearance	Clear to amber colored liquid that displays multi-colored birefringence under certain conditions
Odor	Odorless
Melting / Freezing Point	0C
Boiling Point	>100C
Flammability	Not flammable
pH	7.0 +/- 0.5
Specific Gravity	Not determined (but very close to 1.0 based on ingredients)

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

None. Stable under normal temperature conditions.

### 10.2. Chemical Stability

Product is stable.

### 10.3. Possibility of Hazardous Reactions

Hazardous reactions will not occur in normal use conditions

### 10.4. Conditions to Avoid

Ionic contamination will cause product to irreversibly flocculate and render product useless for designated uses. Additions of any other materials to this product has not been evaluated and may render the products useless.

## 10.5. Incompatible Materials

Any strong acids or bases, especially hydrofluoric acid. Salts or other ionic contamination. Common tap water.

## 10.6. Hazardous Decomposition Products

Carbon oxides (CO, CO<sub>2</sub>) as is common for any water-based product. In the presence of hydrofluoric acid, silicon tetrafluoride gas may form.

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on Toxicological Effects

Acute Toxicity	Oral LD50: Not Relevant Dermal LD50: Not Relevant Inhalation LC50: Not Relevant
Inhalation	If product completely dries out to a residue, dust produced by residue abrasion may irritate the respiratory system. Aerosolized product may also irritate the respiratory system.
Skin Contact	May irritate skin.
Eye Contact	May irritate eyes.

## 12. ECOLOGICAL INFORMATION

### 12.1. Ecotoxicity

Not regarded as dangerous for the environment

### 12.2. Acute Fish Toxicity

Not considered toxic to fish

### 12.3. Persistence and Degradability

Liquid portions of this product readily degrades in the environment. Solid portions are inert, inorganic and do not degrade.

### 12.4. Bioaccumulative Potential

This product is not bioaccumulating.

### 12.5. Mobility in Soil

Liquid portions of this product have high mobility in soil. Solid portions have low/no mobility in soil.

### 12.6. Results of PBT and vPvB Assessment

These products do not contain any PBT or vPvB substances.

## **12.7. Other Adverse Effects**

None.

## **13. DISPOSAL CONSIDERATIONS**

### **13.1. Product Disposal Recommendations**

This product may be suitable for sanitary sewer disposal, trash disposal, or draining into soil. Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations.

### **13.2. Packaging Disposal Recommendations**

Product packaging should be cleaned/rinsed and recycled in accordance with local regulations.

## **14. TRANSPORT INFORMATION**

### **14.1. UN Number**

This product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### **14.2. UN Proper Shipping Name**

Not dangerous goods.

### **14.3. Transport and Hazard Class(s)**

Not classified for transportation.

### **14.4. Packing Group**

Not dangerous goods.

### **14.5. Environmental Hazards**

Not an environmentally hazardous substance / marine pollutant.

### **14.6. Special Precautions for User**

Not dangerous goods.

### **14.7. Transport in Bulk According to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

## **15. REGULATORY INFORMATION**

### **15.1. United States Regulation**

SARA 302 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 311/312 Hazards	Regulated per OSHA HAZCOM Standards.
SARA 313 Components	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

## 15.2. California (Proposition 65) Regulation

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

## 15.3. Other States Right To Know Components

No chemicals in this product is subject to state reporting requirements.

## 16. OTHER INFORMATION

### 16.1. General

The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions in an individual operation to instruct employees and develop work practice procedures for a safe work environment.

The information contained herein is, to the best of knowledge of Laminar Sciences Corporation, accurate. However, since the conditions of handling and use are beyond Laminar Sciences Corporation's control, Laminar Sciences Corporation makes no guarantee of results, and assumes no liability for damages incurred by use of this product. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this product.

### 16.2. Ratings

HMIS Rating	Health Hazard: 0 Chronic Health Hazard: 0 Flammability: 0 Physical Hazard: 0
NFPA Rating	Health Hazard: 0 Fire Hazard: 0 Reactivity Hazard: 0
GHS Full Text Phrases	None

### 16.3. Document History

Version	Notes
Revision 1.0	Published 11/9/2016