

Version 2.2 Revision Date: 03/21/2018

## **1. PRODUCT AND COMPANY IDENTIFICATION**

| Product Name:    | Fluoroliposome <sup>®</sup> -DiR   |
|------------------|--|
| Product Number:  | CLD-8928   |
| Brand:           | FLUOROLIPOSOME®  |
| Company Address: | ENCAPSUL89A NANOSCIENCES LLC<br>5409 Maryland Way, Suite 360<br>Brentwood, TN, 37027 |
| Technical Phone: | 615-884-4442   |
| Fax:             | 615-250-8747   |
| Emergency Phone: | 615-438-8553   |

# 2. COMPOSITION/INFORMATION ON INGREDIENTS

| INGREDIENT NAME   | CAS#      | PERCENT |
|---|-----------|---------|
| Water   | 7732-18-5 | >90     |
| Sodium chloride   | 7647-14-5 | <5      |
| Potassium chloride  | 7447-40-7 | <5      |
| Disodium phosphate  | 7558-79-4 | <5      |
| Potassium phosphate                                       | 7758-11-4 | <5      |
| L-α-phosphatidylcholine                                   | 8002-43-5 | <5      |
| Cholesterol   | 57-88-5   | <5      |
| 1,1'-Dioctadecyl-3,3,3',3'-tetramethylindotricarbocyanine | N/A       | <5      |
| iodide (DiR)  |           |         |

# 3. HAZARDS IDENTIFICATION

#### OSHA

No known OSHA hazards.

GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

Not a hazardous mixture of substance.



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| HMIS RATING  |               |   |  |
|--------------|---------------|---|--|
| HEALTH HAZA  | RDS:          | 0   |  |
| FLAMMABILIT  | Y:            | 0   |  |
| CHRONIC HEA  | LTH HAZARDS:  | 0   |  |
| PHYSICAL HAZ | ARDS:         | 0   |  |
|              |               |   |  |
| NFPA RATING  |               |   |  |
| HEALTH HAZA  | RD:           | 0   |  |
| FLAMMABILIT  | Y:            | 0   |  |
| REACTIVITY:  |               | 0   |  |
|              |               |   |  |
| POTENTIAL H  | EALTH EFFECTS |   |  |
| Inhalation   | May be harmfu | I if inhaled. May cause respiratory tract irritation.   |  |
| Skin         | May be harmfu | ıl if absorbed through skin. May cause skin irritation. |  |
| Eyes         | May cause eye | May cause eye irritation.                               |  |
| Ingestion    | May be harmfu | ıl if swallowed.  |  |
|              |               |   |  |

# 4. FIRST AID MEASURES

| <b>ORAL EXPOSURE</b><br>Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse |
|--|
| mouth with water. Consult a physician.   |
| INHALATION EXPOSURE  |
| If inhaled, move to fresh air. If not breathing, give artificial respiration. If breathing is                |
| difficult, give oxygen. Consult a physician.   |
| DERMAL EXPOSURE  |
| In case of contact, immediately wash skin with soap and copious amounts of water.                            |
| Contact a physician.   |
|  |



### EYE EXPOSURE

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



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## 5. FIRE FIGHTING MEASURES

#### FLAMMABILITY

Not flammable or combustible.

### EXTINGUISHING MEDIA

It is suitable to use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.



### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

#### HAZARDOUS COMBUSTION PRODUCTS

Hazardous decomposition products formed under fire conditions, carbon oxides, nitrogen oxides and sulfur oxides.

## 6. ACCIDENTAL RELEASE MEASURES

#### METHODS FOR CLEANING UP

Absorb any spilled material quickly using absorbent pads. Wipe area to remove as much of the liquid as possible. Apply bleach to the affected area and let sit for several hours. Clean the affected area thoroughly with soap and water to remove the bleach. Collect all cleanup materials and dispose of them in accordance with local, state and federal waste disposal laws.



#### **ENVIRONMENTAL PRECAUTIONS**

Do not let product enter drains. If safe to do so prevent further leakages or spills.

#### PERSONAL PRECAUTIONS

Use personal protective equipment. Avoid breathing in vapors, mist or gas. Ensure adequate ventilation. Prepare evacuation sites.

## 7. HANDLING AND STORAGE

#### HANDLING

User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Wash hands thoroughly after handling.



#### STORAGE

<u>Suitable:</u> Keep in tightly closed container. Store in temperature between approximately 2-8 °C. Do not freeze.



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# 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

#### **ENGINEERING CONTROLS**

Appropriate industrial hygiene.

## PERSONAL PROTECTIVE EQUIPMENT

<u>Respiratory</u>: Where protection is desired, use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand: Compatible chemical-resistant gloves

<u>Eye</u>: Where protection is desired, use chemical safety goggles with side shades conforming to EN166.

Skin and Body: Wear a complete suit protecting against chemicals, if desired.

### **GENERAL HYGIENE MEASURES**

Wash hands thoroughly after handling. Wash contaminated clothing before reuse.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance            | Dark Blue Liquid Dispersion |
|-----------------------|-----------------------------|
| Safety data           | рН 7.4                      |
| Melting point         | N/A                         |
| Boiling point         | N/A                         |
| Flash point           | N/A                         |
| Ignition Temperature  | N/A                         |
| Lower explosion limit | N/A                         |
| Upper Explosion limit | N/A                         |
| Water Solubility      | N/A                         |
| Density               | N/A                         |

# **10.STABILITY AND REACTIVITY**

#### STORAGE STABILITY

Store under recommended conditions.

#### MATERIALS TO AVOID

Strong oxidizing agents

#### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous decomposition products formed under fire conditions- Carbon oxides, nitrogen oxides, sulfur oxides.





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## **11.TOXICOLOGICAL INFORMATION**

| IARC:        | No component of this product present at levels greater than or equal to 0.1% is identified as |
|--------------|---|
|              | probable, possible or confirmed human carcinogen by the IARC.                                 |
| <u>OHSA:</u> | No component of this product present at levels greater than or equal to 0.1% is identified as |
|              | probable, possible or confirmed human carcinogen by the OHSA.                                 |
| ACGIH:       | No component of this product present at levels greater than or equal to 0.1% is identified as |
|              | probable, possible or confirmed human carcinogen by the ACGIH.                                |
|              | No component of this product present at lough greater then or equal to 0.1% is identified as  |

<u>EPA:</u> No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by the EPA.

### ACUTE TOXICITY

No data available

#### **Irritation and Corrosion**

No data available

#### **ROUTE OF EXPOSURE**

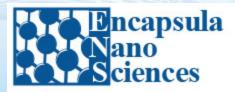
| Skin Contact:    | May cause skin irritation  |
|------------------|--|
| Skin Absorption: | May be harmful if absorbed through the skin                                  |
| Eye Contact:     | May cause eye irritation   |
| Inhalation:      | Materials may be irritating to mucous membranes and upper respiratory tract. |
| Ingestion:       | May be harmful if swallowed  |

#### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

# **12.ECOLOGICAL INFORMATION**

| Elimination information (persistence and degradability) | N/A |
|---|-----|
| Ecotoxicity effects                                     | N/A |
| Further information on ecology                          | N/A |



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## **13.DISPOSAL CONSIDERATIONS**

#### PRODUCT

Observe all federal, state, and local environment regulations. Contact a licensed professional waste disposal service to remove this material.

#### CONTAMINATED PACKAGING

Dispose of as unused product.

### **14.TRANSPORT INFORMATION**

| DOT (US) Not dangero | ous goods |
|----------------------|-----------|
|----------------------|-----------|

IMDG Not dangerous goods

IATA Not dangerous goods

### **15. REGULATORY INFORMATION**

### **OSHA HAZARDS**

No known OSHA hazards

#### SARA 302 COMPONENTS

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

#### SARA 313 COMPONENTS

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed threshold (De Minimis) reporting levels established by SARA Title III, Section 313

SARA 311/312 HAZARDS No SARA hazards



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#### MASSACHUSETTS RIGHT TO KNOW COMPONENTS

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

#### PENNSYLVANIA RIGHT TO KNOW COMPONENTS

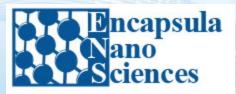
| Sodium chloride764Potassium chloride744Disodium phosphate755Potassium phosphate775L-α-phosphatidylcholine800 | 32-18-5<br>17-14-5<br>17-40-7<br>58-79-4<br>58-11-4<br>02-43-5<br>88-5<br>4 |  |
|--|---|--|

#### NEW JERSEY RIGHT TO KNOW COMPONENTS

|  | CAS-No.  | Revision Date |
|--|--|---------------|
| Water<br>Sodium chloride<br>Potassium chloride<br>Disodium phosphate<br>Potassium phosphate<br>L-α-phosphatidylcholine<br>Cholesterol<br>1,1'-Dioctadecyl-3,3,3',3'-tetramethylindotricarbocyanine<br>iodide (DiR) | 7732-18-5<br>7647-14-5<br>7447-40-7<br>7558-79-4<br>7758-11-4<br>8002-43-5<br>57-88-5<br>N/A |               |

### **CALIFORNIA PROP. 65 COMPONENTS**

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



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## **16. OTHER INFORMATION**

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The above information is believed to be correct but does not support to be all inclusive and shall be used only as a guide.

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Encapsula NanoSciences LLC shall not be held liable for any damage resulting from handling or from contact with the above product.