

Material Safety Data Sheet

Section 1 - Chemical Product and Company Identification

Product details:	Indium/Gallium Phosphide (InGaP) eFluor™ with Zinc Sulfide coating surrounded by carboxyl, amine, or non-functionalized lipid packed in water. This MSDS covers all InGaP eFluor™ Nanocrystal configurations non-conjugated to protein.
Trade name:	eFluor™ Nanocrystal
Chemical Family:	Matrix: Water Nanocrystal: III-V semiconductor compound
Manufacturer/Supplier:	eBioscience, Inc. 10255 Science Center Drive San Diego, Ca 92121 888-999-1371

Section 2 - Composition / Information on Ingredients

Component	CAS#	EC#	% By Weight
Water	7732-18-5	N/A	96
Lipid	proprietary	proprietary	~ 4
eFluor™ (as nanocrystal compounds below)			
Indium Phosphide	22398-80-7	244-959-5	< 1
Zinc Sulfide	1314-98-3	215-251-3	
Gallium	7440-55-3	231-163-8	

Section 3 - Hazards Identification

Hazard Description:	Irritant
NFPA Rating:	Health = 1 Fire = 0 Reactivity = 0

Emergency Overview	
Color:	Brown
Physical Form:	Liquid
Odor:	None
Major Health Hazards:	None known
Physical Hazards:	None

Potential Health Effects	
Inhalation:	No data available
Skin Contact:	No data available
Eye Contact:	No data available
Ingestion:	No data available

Carcinogen Status	
OSHA:	No
NTP:	No
IARC:	No

Section 4 - First Aid Measures

Inhalation:	If inhaled, remove to fresh air. If not breathing give artificial respiration and seek medical attention.
Skin Contact:	Wash skin with soap and water for at least 15 minutes while removing contaminated personal protective equipment, clothing, and shoes. Seek medical attention if needed.
Eye Contact:	Irrigate eyes for at least 15 minutes. Seek medical attention.
Ingestion:	If ingested, do not induce vomiting, seek medical attention immediately.

Section 5 - Fire Fighting Measures

Extinguishing Media:	Material does not burn.
Fire Fighting:	N/A
Flash Point:	N/A
Flammable Limits:	N/A
Autoignition Point:	N/A
Flammability Class:	N/A

Section 6 - Accidental Release Measures

Small Spills:	Absorb with spill pillow or other non-combustible material. Collect spilled material in appropriate container for disposal.
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Section 7 - Handling and Storage

Store in a tightly closed container. Store refrigerated (4°C). Do not freeze.

Section 8 - Exposure Control / Personal Protection

Exposure Limits	
Zinc Sulfide	15 mg/m ³ OSHA TWA (particulates not otherwise regulated)
Indium Phosphide	None established
Gallium	Not regulated
Lipid	Not regulated

Ventilation:	No special ventilation requirements are necessary unless material is aerosolized. If aerosolized, work in chemical fume hood or use effective local exhaust ventilation.
Eye Protection:	Wear safety glasses with side shields as a minimum of protection. If splash or splatter is possible, wear chemical/splash resistant safety goggles and or face shield. Emergency eye wash station and quick drench shower should be provided in the immediate work area as per the ANSI Z358.1 guidelines.
Clothing:	Wear appropriate chemical resistant clothing.
Gloves:	Wear appropriate chemical resistant gloves for type of exposure. Latex, nitrile, neoprene, or butyl gloves provide adequate protection.
Respirator:	Respiratory protection is not required under normal use.

Section 9 - Physical and Chemical Properties

Indium/Gallium Phosphide eFluor™ with lipid in water	
Physical State:	Liquid
Color:	Brown
Odor:	None
Boiling Point:	~212 F° (100 C°)
Freezing Point:	~32 F° (0 C°)
Vapor Pressure:	N/A
Vapor Density (air = 1):	N/A
Specific Gravity (water = 1):	~1.0
pH:	Neutral

Section 10 - Stability and Reactivity

Stability:	Stable at standard temperatures and pressure.
Conditions to avoid:	None
Incompatible:	Alkali metals
Hazards Decomposition:	None known
Polymerization:	Material will not polymerize.

Section 11 - Toxicological Information

Zinc Sulfide	
Toxicity Data:	Oral Rat > 2,000 mg/kg LD50; Inhalation Rat > 5,040 mg/m ³ LC50; Skin Rat > 2,000 mg/kg LD50
Acute inhalation, skin and eye toxicity:	Zinc Sulfide is an irritant to the eyes, respiratory system, and skin.
Additional toxicological information:	To the best of our knowledge the acute and chronic toxicity of this substance is not fully known. Indium/Gallium Phosphide in the form of a nanocrystal may or may not present the same health hazards as larger containing molecules. It is therefore encouraged to use caution when handling this product as its toxicity and modes of exposure are not well characterized or understood.

Section 12 - Ecological Information

Do not allow material to be released to the environment (ground, air, or water bodies) without proper permits.

Section 13 - Disposal Considerations

Dispose in accordance with all applicable local, state, and federal regulations.

Section 14 - Transport Information

US.DOT:	Not regulated
Canadian Transportation of Dangerous Goods:	Not regulated
Land Transport ADR/RID	Not regulated
Air Transport IATA/ICAO	Not regulated

Section 15 - Regulatory Information

US Regulations	CERCLA: Not regulated SARA Title III, sec. 302, 304: No SARA Title III, Section 311/312 Acute: No Chronic: No Fire: No Reactive: No Sudden Release: No US Inventory (TSCA) listed: No
Canadian Regulations	WHMIS Classification: Not available
European Regulations	EC Classification: Not classified
EC Risk Phrases	R36/37, S2, S20, S24, S25

Section 16 - Other Information

Information given herein is offered in good faith as accurate, but without guarantee. Conditions of use and suitability of the product for particular uses are beyond our control: all risks of use of the product are therefore assumed by the user.

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