

# SAFETY DATA SHEET

## Flash Phalloidin Dye

### Section 1. Identification

**Product identifier** : Flash Phalloidin Dye  
**Product code** : Not available.  
**Other means of identification** : Not available.  
**Product type** : Solid.

#### Relevant identified uses of the substance or mixture and uses advised against

**Product use** : Research.  
**Area of application** : Industrial applications.

**Supplier/Manufacturer** : BioLegend Inc.  
 8999 BioLegend Way  
 San Diego, CA 92121 – USA  
 Tel: +1-858-455-9588 (7:00AM – 5:00PM PT, M-F)

**e-mail address of person responsible for this SDS** : cs@biolegend.com

**Emergency telephone number (with hours of operation)** : +1-858-455-9588 (7:00AM – 5:00PM PT, M-F)

### Section 2. Hazards identification

**Classification of the substance or mixture** : H300 ACUTE TOXICITY (oral) - Category 2  
 H310 ACUTE TOXICITY (dermal) - Category 2  
 H330 ACUTE TOXICITY (inhalation) - Category 2

#### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : H300 + H310 + H330 - Fatal if swallowed, in contact with skin or if inhaled.

**Precautionary statements**

**Prevention**

: P280 - Wear protective gloves and protective clothing.  
 P284 - In case of inadequate ventilation wear respiratory protection.  
 P262 - Do not get in eyes, on skin, or on clothing.  
 P260 - Do not breathe dust.  
 P270 - Do not eat, drink or smoke when using this product.  
 P264 - Wash thoroughly after handling.

## Section 2. Hazards identification

- Response** : P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.  
 P301 + P310, P330 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth.  
 P361 + P364 - Take off immediately all contaminated clothing and wash it before reuse.  
 P302 + P310, P352 - IF ON SKIN: Immediately call a POISON CENTER or doctor. Wash with plenty of water.
- Storage** : Not applicable.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Other hazards which do not result in classification** : None known.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

Ingredient name	%	CAS number
Phalloidin	≥30 - ≤60	17466-45-4

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

**Chemical formula** : Not applicable.

## Section 4. First aid measures

### Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Gently wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## Section 4. First aid measures

**Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : Fatal if inhaled.  
**Skin contact** : Fatal in contact with skin.  
**Ingestion** : Fatal if swallowed.

#### Over-exposure signs/symptoms

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

**Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.  
**Specific treatments** : No specific treatment.  
**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Firefighting measures

### Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.  
**Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : No specific fire or explosion hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
nitrogen oxides  
sulfur oxides

## Section 5. Firefighting measures

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and material for containment and cleaning up

- Small spill** : Move containers from spill area. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

## Section 7. Handling and storage

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

#### Biological exposure indices

None known.

#### **Appropriate engineering controls**

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### **Environmental exposure controls**

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

#### **Hygiene measures**

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

#### **Eye/face protection**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

### Skin protection

#### **Hand protection**

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

#### **Body protection**

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

#### **Other skin protection**

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

## Section 8. Exposure controls/personal protection

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Thermal hazards** : Not available.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

- Physical state** : Solid.
- Colour** : Not available.
- Odour** : Not available.
- Odour threshold** : Not available.
- pH** : Not available.
- Melting point/freezing point** : Not available.
- Boiling point, initial boiling point, and boiling range** : Not available.
- Flash point** : Not applicable.
- Flammability** : Not available.
- Lower and upper explosion limit/flammability limit** : Not applicable.
- Vapour pressure** : Not available.
- Relative vapour density** : Not applicable.
- Relative density** : Not available.
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not applicable.
- Auto-ignition temperature** : Not applicable.
- Decomposition temperature** : Not available.
- Viscosity** : Not applicable.
- Particle characteristics**
- Median particle size** : Not available.
- Other information**
- Physical/chemical properties comments** : No additional information.

## Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.  
Under normal conditions of storage and use, hazardous polymerisation will not occur.

## Section 10. Stability and reactivity

**Conditions to avoid** : No specific data.

**Incompatible materials** : No specific data.

**Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**SADT** : Not available.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

**Conclusion/Summary** : Not available.

#### Irritation/Corrosion

##### Conclusion/Summary

**Skin** : Not available.

**Eyes** : Not available.

**Respiratory** : Not available.

#### Sensitisation

##### Conclusion/Summary

**Skin** : Not available.

**Respiratory** : Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Specific target organ toxicity (single exposure)

Not available.

#### Specific target organ toxicity (repeated exposure)

Not available.

#### Aspiration hazard

Not available.

**Information on likely routes of exposure** :  Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

#### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : Fatal if inhaled.

**Skin contact** : Fatal in contact with skin.

**Version** : 2

**Date of issue/Date of revision** : 11/15/2023

## Section 11. Toxicological information

**Ingestion** : Fatal if swallowed.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Flash Phalloidin Dye Phalloidin	10 5	100 50	N/A N/A	N/A N/A	0.1 0.05

## Section 12. Ecological information

### Toxicity

**Conclusion/Summary** : Not available.

### Persistence/degradability

**Conclusion/Summary** : Not available.

### Bioaccumulative potential

Not available.



## Section 12. Ecological information

### Mobility in soil






Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

	UN	IMDG	IATA	ADR/RID	ADN
<b>UN number</b>	UN3462	UN3462	UN3462	UN3462	UN3462
<b>UN proper shipping name</b>	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Phalloidin)	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Phalloidin)	Toxins, extracted from living sources, solid, n.o.s. (Phalloidin)	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Phalloidin)	TOXINS, EXTRACTED FROM LIVING SOURCES, SOLID, N.O.S. (Phalloidin)
<b>Transport hazard class (es)</b>	6.1 	6.1 	6.1 	6.1 	6.1 
<b>Packing group</b>	II	II	II	II	II
<b>Environmental hazards</b>	No.	No.	No.	No.	No.

### Additional information

**UN** : **Special provisions** 210, 274

**IMDG** : **Emergency schedules** F-A, S-A  
**Special provisions** 210, 274

**IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 25 kg. Packaging instructions: 669. Cargo Aircraft Only: 100 kg. Packaging instructions: 676. Limited Quantities - Passenger Aircraft: 1 kg. Packaging instructions: Y644.  
**Special provisions** A3, A43

## Section 14. Transport information

**ADR/RID** : **Hazard identification number** 60  
**Limited quantity** 500 g  
**Special provisions** 210, 274  
**Tunnel code** (D/E)

**ADN** : **Special provisions** 210, 274, 802

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

### Singapore - hazardous chemicals under government control

None.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

## Section 16. Other information

### History

**Date of issue/Date of revision** : 11/15/2023

**Date of previous issue** : 3/9/2022

**Version** : 2

**Prepared by** : Sphera Solutions

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 N/A = Not available  
 UN = United Nations

### Procedure used to derive the classification

**Version** : 2

**Date of issue/Date of revision** : 11/15/2023

**Section 16. Other information**

<b>Classification</b>	<b>Justification</b>
ACUTE TOXICITY (oral) - Category 2	Calculation method
ACUTE TOXICITY (dermal) - Category 2	Calculation method
ACUTE TOXICITY (inhalation) - Category 2	Calculation method

**References** : GHS - Globally Harmonised System of Classification and Labelling of Chemicals  
International transport regulations

✔ Indicates information that has changed from previously issued version.

**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.