SAFETY DATA SHEET
Date Revised: August 16, 2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Phalloidin, CF dye conjugate
Catalog Number:

<table>
<thead>
<tr>
<th>Phalloidin conjugate</th>
<th>Catalog Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phalloidin, CF350</td>
<td>00049</td>
</tr>
<tr>
<td>Phalloidin, CF405M</td>
<td>00034</td>
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<tr>
<td>Phalloidin, CF488A</td>
<td>00042</td>
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<tr>
<td>Phalloidin, CF532</td>
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<tr>
<td>Phalloidin, CF543</td>
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<tr>
<td>Phalloidin, CF555</td>
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<tr>
<td>Phalloidin, CF568</td>
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<tr>
<td>Phalloidin, CF594</td>
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<td>Phalloidin, CF633</td>
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<td>Phalloidin, CF640R</td>
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<td>Phalloidin, CF647</td>
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<td>Phalloidin, CF660R</td>
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<tr>
<td>Phalloidin, CF680R</td>
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<tr>
<td>Phalloidin, CF680</td>
<td>00053</td>
</tr>
<tr>
<td>Phalloidin, CF430</td>
<td>00054</td>
</tr>
<tr>
<td>Phalloidin, CF440</td>
<td>00055</td>
</tr>
</tbody>
</table>

Unit Size: 300U
Manufacturer/Supplier: Biotium, Inc.
46117 Landing Parkway, Fremont, CA 94538, USA
Phone: 1-510-265-1027, Fax: 1-510-265-1352
Web: http://www.biotium.com

2. HAZARDS IDENTIFICATION

Classification according to Regulation (EC) No 1272/2008[CLP]
Acute toxicity, Oral (Category 2)
Acute Toxicity, Inhalation (Category 2)
Acute toxicity, Dermal (Category 2)

Classification according to Directive 1999/45/EC
R-phrases
R28 - Very toxic if swallowed
R24 - Toxic in contact with skin
R20 - Harmful by inhalation
R22 - Harmful if swallowed

S-phrases
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)
S36/37 - Wear suitable protective clothing and gloves
S24/25 - Avoid contact with skin and eyes.

Labeling according to Regulation (EC) No 1272/2008[CLP]
Hazard pictogram
Signal word  Danger

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

Precautionary statements
P260  Do not breathe dust/ fume/ gas/ mist/ vapours/ spray
P264  Wash hands thoroughly after handling.
P280  Wear protective gloves/ protective clothing.
P284  Wear respiratory protection.
P302 + P350  IF ON SKIN: Gently wash with plenty of soap and water.
P310  Immediately call a POISON CENTER or doctor/ physician.

HMIS Classification
Health hazard: 3
Flammability: 0
Physical hazards: 0

NFPA Rating
Health hazard: 4
Fire: 0
Reactivity Hazard: 0

Potential Health Effects
Inhalation  May be fatal if inhaled. May cause respiratory tract irritation.
Skin  May be fatal if absorbed through skin. May cause skin irritation.
Eye  May cause eye irritation.
Ingestion  May be fatal if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Index No.</th>
<th>Weight %</th>
<th>Classification according to 67/548/EEC</th>
<th>Classification according to regulation (EC)No1278/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phalloidin, CF dye conjugates</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>&gt;99%</td>
<td>R28 - Very toxic if swallowed R24 - Toxic in contact with skin R20 - Harmful by inhalation R22 - Harmful if swallowed</td>
<td>Acute toxicity, Oral (Category 2) Acute toxicity, Inhalation (Category 2) Acute toxicity, Dermal (Category 2)</td>
</tr>
</tbody>
</table>

4. FIRST-AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.

Special protective equipment for firefighters
Wear self contained breathing apparatus for firefighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Avoid breathing vapors, mist or gas. Remove all sources of ignition.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up
Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling
Avoid inhalation of vapor or mist.
Avoid direct contact with substance.

Conditions for safe storage
Keep container tightly closed in a dry and well-ventilated place.
Store at -20 °C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
Substance Phalloidin, CF dye conjugate
CAS no. No information available
Control parameters No information available
Personal protective equipment

Hand protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Phalloidin, CF dye conjugate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Solid</td>
</tr>
<tr>
<td>Odor</td>
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<tr>
<td>Odor Threshold</td>
<td>No information available</td>
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<tr>
<td>pH</td>
<td>No information available</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No information available</td>
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<tr>
<td>Flash point</td>
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<tr>
<td>Evaporate rate</td>
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</tr>
<tr>
<td>Flammability</td>
<td>No information available</td>
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<tr>
<td>Explosive limits</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
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<tr>
<td>Vapor density</td>
<td>No information available</td>
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<tr>
<td>Relative density</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td>No information available</td>
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<tr>
<td>Partition coefficient:n-octanol/water</td>
<td>No information available</td>
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<tr>
<td>Auto-ignition temperature</td>
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<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
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<tr>
<td>Viscosity</td>
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<tr>
<td>Explosive properties</td>
<td>No information available</td>
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<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
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</tbody>
</table>

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
No data available

Conditions to avoid
Heat, flames and sparks.

**Materials to avoid**

No data available

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - no data available

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11. **TOXICOLOGICAL INFORMATION**

**Acute toxicity**

<table>
<thead>
<tr>
<th>Route</th>
<th>LD50/LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>None</td>
</tr>
<tr>
<td>Inhalation</td>
<td>None</td>
</tr>
<tr>
<td>Dermal</td>
<td>None</td>
</tr>
</tbody>
</table>

Other information on acute toxicity no data available

**Skin corrosion/irritation** no data available

**Serious eye damage/eye irritation** no data available

**Respiratory or skin sensitization** no data available

**Germ cell mutagenicity** no data available

**Carcinogenicity**

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 IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity** no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)** no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)** no data available

**Aspiration hazard** no data available

**Potential health effects**

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

**Additional Information**

RTECS: None

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12. **ECOLOGICAL INFORMATION**

**Toxicity** no information available

**Persistence and degradability** no information available

**Biodegradation** no information available

**Mobility in soil** no information available
Results of PBT and vPvB assessment  no information available  
Other adverse effects  no information available  
Additional information  no information available  

13. DISPOSAL CONSIDERATIONS

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

14. TRANSPORT INFORMATION

IATA, IMDG, DOT(US)
UN number 2811  
UN proper shipping name Toxic solid, organic, n.o.s. (phalloidin)  
Transport hazard class 6.1  
Packing group II  
Environmental hazards No information available  
Special precaution for user Toxic  

15. REGULATION INFORMATION

US Federal Regulations
Us Toxic Substances Control Act(TSCA): Not listed  
SARA 302: No chemicals were found.  
SARA 313: No chemicals were found.  
SARA 311/312 Hazards: No chemicals were found.

16. OTHER INFORMATION

Classification according to Regulation (EC) Nr. 1272/2008  
Prepared by: Regulatory Department  
Biotium Inc.  
Version no. 2  
Reason for revision Application of CLP labeling and corresponding requirements  

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. Biotium shall not be held liable for any damage resulting from handling or contact with the above product.