Material Safety Data Sheet

Section 1. Identification of the Substance/Mixture

Product name: Calcein, AM

Manufacturer/Supplier identification
ABP Biosciences
7040 Virginia Manor Road, Beltsville, MD 20705, USA
Web: www.abpbio.com
Tel: 301-658-7993
Email: info@abpbio.com

For research use only. Not for use in diagnosis procedures

Section 2. Hazards Identification

GHS Classification
Signal Word: None
Hazard pictograms: None
Health hazards: Not hazardous
Physical hazards: Not hazardous
Environmental hazards: Not hazardous
Hazard Statements: Not Applicable
Prevention: Not Applicable
Response: Not Applicable
Disposal: Not Applicable
Other hazards: Not Applicable

<table>
<thead>
<tr>
<th>HMIS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>0</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
</tbody>
</table>

Section 3. Composition/Information on Ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

Section 4. First Aid Measures

Description of first aid measures

Skin contact  Rinse skin with water. Immediate medical attention is not required.

Eye contact  Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion  Not expected to present a significant ingestion hazard under
anticipated conditions of normal use. If you feel unwell, seek medical advice.

**Inhalation**
Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.

**Notes to Physician**
Treat symptomatically.

**Most important symptoms and effects, both acute and delayed**
Not Applicable

**Indication of any immediate medical attention and special treatment needed**
None.

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**Section 5. Fire-Fighting Measures**

**Extinguishing media**

**Suitable extinguishing media**

**Unsuitable extinguishing media**
No information available.

**Special hazards arising from the substance or mixture**
Not known

**Protective equipment and precautions for firefighters**
Standard procedure for chemical fires.

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**Section 6. Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**
Ensure adequate ventilation
Always wear recommended Personal Protective Equipment
Use personal protection equipment
See section 8 for more information

**Environmental precautions**
No special environmental precautions required.

**Methods and material for containment and cleaning up**
Soak up with inert absorbent material.

**Reference to other sections**
See section 8 for more information.

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**Section 7. Handling and Storage**

**Precautions for safe handling**
Use personal protective equipment as required. No special handling advices are necessary.

**Conditions for safe storage, including any incompatibilities**
Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.
Specific end use(s)
For research use only.

Section 8. Exposure Controls/Personal Protection

Control parameters

Exposure Limits
Contains no substances with occupational exposure limit values.

Engineering Measures
Ensure adequate ventilation, especially in confined areas.

Exposure controls

Personal Protective Equipment

Respiratory protection
In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

Hand protection
Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

Eye protection
Tight sealing safety goggles.

Skin and Body Protection
Wear suitable protective clothing.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls
No special environmental precautions required.

Section 9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>No data</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>No data</td>
</tr>
<tr>
<td>Melting point / melting range</td>
<td>°C No data</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>°C No data</td>
</tr>
<tr>
<td>Flash point</td>
<td>°C No data</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>°C No data</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>°C No data</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data</td>
</tr>
</tbody>
</table>
Relative density: No data
Specific gravity: No data
Solubility: No data
Partition coefficient: n-octanol/water: No data
Viscosity: No data
Explosive properties: No data
Oxidizing properties: No data
Other information: No data.

Section 10. Stability and Reactivity

Reactivity: None known.
Chemical stability: Stable under normal conditions.
Possibility of hazardous reactions: Hazardous reaction has not been reported.
Conditions to avoid: No information available.
Incompatible materials: No dangerous reaction known under conditions of normal use.
Hazardous decomposition products: No data available.

Section 11. Toxicological information

Information on toxicological effects
There is no evidence available indicating acute toxicity.

Principal Routes of Exposure

Acute toxicity: Data are conclusive but insufficient for classification.
Skin corrosion/irritation: Data are conclusive but insufficient for classification.
Serious eye damage/irritation: Data are conclusive but insufficient for classification.
Respiratory or skin sensitization: Data are conclusive but insufficient for classification.
Specific target organ toxicity (STOT)—single exposure: Data are conclusive but insufficient for classification.
Specific target organ toxicity (STOT)—repeated exposure: Data are conclusive but insufficient for classification.
Carcinogenicity: Data are conclusive but insufficient for classification.
Germ cell mutagenicity: Data are conclusive but insufficient for classification.
Reproductive toxicity: Data are conclusive but insufficient for classification.
Aspiration hazard: Data are conclusive but insufficient for classification.
Section 12. Ecological Information

Ecotoxicity
Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Mobility in soil No information available.
Persistence and degradability No information available.
Bioaccumulative potential No information available.

Results of PBT and vPvB assessment
This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects No information available

Section 13. Disposal considerations

Waste treatment methods
The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

Section 14. Transport Information

IATA / ADR / DOT-US / IMDG
Not regulated in the meaning of transport regulations

UN number Not Applicable
UN proper shipping name Not Applicable
Transport hazard class(es) Not Applicable
Packing group Not Applicable
Environmental hazards Not Applicable
Special precautions for user Not Applicable

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not Applicable.

Section 15. Regulatory Information

US Federal Regulations
SARA 313
This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain HAPs
US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class
Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations - Brazil
Not regulated

Section 16. Other Information

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

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End of Material Safety Data Sheet