SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

1. **Product Identifiers**
   - **Product Name**: Silk Fibroin, Solution, 50 mg/mL
   - **Catalog No**: 5154
   - **Brand Name**: Silk Fibroin Solution
   - **CAS No.**: 96690-41-4

2. **Relevant identified uses of the substance or mixture and uses advised against**
   - **Identified Uses**: Laboratory chemicals, Manufacturer of substances

3. **Details of the supplier of the safety data sheet**
   - **Company**: Advanced BioMatrix, Inc.
   - **Address**: 5930 Sea Lion Place, Carlsbad, CA 92010 USA
   - **Phone**
     - 1-800-883-8220
     - 1-760-929-0755 outside USA
   - **Fax**: 1-510-217-3452

4. **Emergency telephone number**
   - **Emergency Phone No.**: 1-800-883-8220

SECTION 2 – HAZARDS IDENTIFICATION

1. **Classification of the substance or mixture**
   - Not a hazardous substance or mixture.

2. **GHS Label elements, including precautionary statements**
   - Not a hazardous substance or mixture.

3. **Hazards not otherwise classified (HNOC) or not covered by GHS** – None

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

1. **Substances**
   - **CAS No.**: 96690-41-4

   No ingredients hazardous according to OSHA criteria.
   No components need to be disclosed according to the applicable regulations.
SECTION 4 – FIRST AID MEASURES

1. **Eye Contact**
   Flush eyes with water as a precaution.

2. **Skin Contact**
   Wash off with soap and plenty of water.

3. **Inhalation**
   If breathed in, move person into fresh air. If not breathing, give artificial respiration.

4. **Ingestion**
   Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. **Most important symptoms and effects, both acute and delayed**
   The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

6. **Indication of any immediate medical attention and special treatment needed**
   No data available

SECTION 5 – FIREFIGHTING MEASURES

1. **Extinguishing media**
   Use water spray, alcohol-resistant roam, dry chemical or carbon dioxide.

2. **Special hazards arising from the substance or mixture**
   Nature of decomposition of products not known.

3. **Advice for firefighters**
   Wear self-contained breathing apparatus for firefight if necessary.

4. **Further Information**
   No data available

SECTION 6 – ACCIDENTAL RELEASE MEASURES

1. **Personal precautions, protective equipment and emergency procedures**
   Avoid dust formation.
   Avoid breath vapors, mist or gas.
   For personal protection see section 8.

2. **Environmental precautions**
   Do not let product enter drains.

3. **Methods and materials for containment and cleaning up**
   Sweep up and shovel. Keep in suitable, closed containers for disposal.

4. **Reference to other sections**
   For disposal see section 13.
SECTION 7 – HANDLING AND STORAGE

1. **Precautions for safe handling**
   Provide appropriate exhaust ventilation at place where dust is formed. For precaution see section 2.2

2. **Conditions for safe storage, including any incompatibilities**
   Keep container tightly closed in a dry and well-ventilated place.
   Recommended storage temperature -60 to -80°C.
   **Specific end use(s)**
   Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8 – EXPOSURE CONTROLS/PERSOINAL PROTECTION

1. **Workplace control parameters**
   The product does not contain any substances with occupational exposure limit values.

2. **Exposure controls**
   **Appropriate engineering controls**
   General industrial hygiene practice.
   **Personal protective equipment**
   **Eye/Face protection**
   Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

   **Skin protection**
   Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of the contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

   **Body protection**
   Choose body protection in relations to its type, to the concentration and amount of dangerous substances, and to the specific work place. The type of protective equipment must be selected according to the concentration and the amount of the dangerous substance at the specific work place.

   **Respiratory protection**
   Respiratory protection is not required. For nuisance exposures use type OV/AG (US) or type ABEK (EU EN 14387) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

   **Control of environmental exposure**
   Do not let product enter drains.
SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form Liquid
Color Slight yellow, translucent
Odor None
Odor threshold No data available
pH Around 9.5
Melting point/freezing point No data available
Initial boiling point and boiling range No data available
Flash point No data available
Evaporation rate No data available
Flammability No data available
Upper/lower flammability No data available
Vapor pressure No data available
Vapor density No data available
Relative density No data available
Water solubility No data available
Partition coefficient: n-octanol/water No data available
Auto-ignition temperature No data available
Decomposition temperature No data available
Viscosity No data available
Explosive properties No data available
Oxidizing properties No data available

SECTION 10 – STABILITY AND REACTIVITY

Reactivity No data available
Chemical stability Stable under recommend storage conditions
Possibility of hazardous reactions No data available
Conditions to avoid High temperatures
Incompatible material Strong oxidizing agents
Hazardous decomposition products Carbon monoxide and Carbon dioxide

**In the event of fire: see section 5.**

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute toxicity No data available
Inhalation
Dermal
Skin corrosion/irritation
Serious eye damage/eye irritation
Respiratory or skin sensitization
Germ cell mutagenicity
Carcinogenicity
   IARC
   No components of this product present at levels greater than or equal to 0.1% is identified as known or anticipate carcinogen by IARC.
   
   NTP
   No components of this product present at levels greater than or equal to 0.1% is identified as known or anticipate carcinogen by NTP.
   
   OSHA
   No components 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
Specific target organ toxicity
   Single exposure
   No data available
   Repeated exposure
   No data available
Aspiration hazard
   No data available
Additional information
   RTECS
   No data available

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

---

**SECTION 12 – ECOLOGICAL INFORMATION**

Toxicity
Persistence and degradability
Bioaccumulative potential
Mobility in soil
Results of PBT and vPvB assessment
   PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effect
   No data available
SECTION 13 – DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14 – TRANSPORT INFORMATION

DOT (US)  Not dangerous goods
IMDG      Not dangerous goods
IATA      Not dangerous goods

SECTION 15 – REGULATORY INFORMATION

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

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

SARA 311/312 Hazards
No SARA Hazards

Massachusetts Right To Know Components
Silk Fibroin  CAS No. 96690-41-4

Pennsylvania Right To Know Components
Silk Fibroin  CAS No. 96690-41-4

New Jersey Right To Know Components
Silk Fibroin  CAS No. 96690-41-4

California Prop. 65 Components
This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.
### SECTION 16 – OTHER INFORMATION

<table>
<thead>
<tr>
<th>HMIS Rating</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health hazard</td>
<td>0</td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Flammability</td>
<td>0</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NFPA Rating</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health hazard</td>
<td>0</td>
</tr>
<tr>
<td>Fire Hazard</td>
<td>0</td>
</tr>
<tr>
<td>Reactivity Hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

**Further information:**
This information has been prepared by Advanced BioMatrix, Inc. The above information is believed to be correct but does not purport 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. Advanced BioMatrix, Inc. and its Affiliates shall not be held liable for any damages resulting from handling or from contact with the above product. See [www.advancedbiomatrix.com](http://www.advancedbiomatrix.com) for additional terms and conditions of sale.

**Preparation Information:**
Advanced BioMatrix, Inc.
1-800-883-8220