1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY UNDERTAKING

- Product identifiers
  - Product Name: Exo-spin™ Kit
  - Catalogue Number: EX01, EX02

- Relevant identified uses of the substance or mixture and uses advised against
  - Research use only. Not for human use.

- Details of the supplier of the safety data sheet
  - Company: Cell Guidance Systems
    - Moneta Building, Babraham Research Campus,
      - Cambridge CB22 3AT, UK
  - Web: www.cellgs.com
  - Email: tech@cellgs.com
  - Telephone: +44 (0)1223 967316

- Emergency Information
  - In case of a chemical emergency, spill, fire, or exposure, call Cell Guidance Systems at +44 (0) 1223 967316 (09.00 - 17.00 GMT). In US call 760 450 4304.

2. HAZARDS IDENTIFICATION

- Classification of the substance or mixture
  - Not a hazardous substance or mixture.
  - This substance does not meet the classification criteria of the EC Directives 67/548/EEC, 1999/45/EC or 1272/2008.

- Label elements
  - The product does not need to be labeled in accordance with EC directives or respective national laws.

- Other hazards
  - None

3. COMPOSITION/INFORMATION ON INGREDIENTS

- Substances
  - Ethanol - 20%; CAS: 64-17-5

  - The product does not contain any more hazardous substances at concentrations of 1% or greater. The product is not known to contain carcinogens at a concentration of 0.1% or greater. No MSDS is required.
4. **FIRST AID MEASURES**

   - **Description of first aid measures**
     
     **General advice:** Consult a doctor and show this safety data sheet.
     
     **If inhaled:** Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.
     
     **In case of skin contact:** Immediately wash skin with copious amounts of soap and water and rinse thoroughly. Generally the product does not irritate the skin. Consult a doctor.
     
     **In case of eye contact:** Flush with copious amounts of water for several minutes. Consult a doctor.
     
     **If swallowed:** Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

5. **FIRE-FIGHTING MEASURES**

   - **Classification of substance**
     The product is non-flammable.

   - **Suitable extinguishing media**
     Use water spray, carbon dioxide, dry chemical powder or alcohol-resistant foam.

   - **Protective Equipment**
     Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

6. **ACCIDENTAL RELEASE MEASURES**

   - **Personal precautions, protective equipment and emergency procedures**
     Use standard laboratory practices including proper personal protective equipment. Implement appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

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

   - **Methods and materials for containment and cleaning up**
     Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under section 13 of MSDS.

   - **Additional information**
     None

7. **HANDLING AND STORAGE**

   - **Precautions for safe handling**
     No special measures required. No special precautions are necessary if used correctly. Avoid inhalation, contact with eyes, skin and clothing.

   - **Conditions for safe storage, including any incompatibilities**
     Keep away from direct sunlight. Keep container tightly sealed until ready for use. Recommended storage temperature: Store at 4°C

   - **Specific end uses**
     None
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Control parameters
  Components with workplace control parameters  None known. Contains no substances with occupational exposure limit values.

- Exposure controls
  Appropriate engineering controls  Ensure all engineering measures described under section 7 of MSDS are in place. Follow usual standard laboratory practices. Use appropriate personal protective work clothing.

- Personal protective equipment
  Eye / face protection  Use appropriate safety glasses.
  Skin protection  Use appropriate chemical resistant gloves. Gloves should be inspected before use. Wash and dry hands thoroughly after handling.
  Body protection  Wear appropriate protective clothing.
  Respiratory protection  Respiratory equipment is not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties

  PBS (Phosphate Buffer Saline)
  Appearance  Clear liquid colourless
  Vapor pressure  No data available
  Vapor density  No data available
  Odor  No data available
  Odor threshold  No data available
  Relative density  No data available
  pH  No data available
  Solubility(ies)  No data available
  Melting / freezing point  No data available
  Partition coefficient  No data available
  Boiling point / range  No data available
  Auto-ignition temperature  No data available
  Flash point  No data available
  Decomposition temperature  No data available
  Evaporation rate  No data available
  Viscosity  No data available
  Flammability (solid, gas)  No data available
  Explosive properties  No data available
  Upper / lower flammability or explosive limits  No data available
  Oxidising properties  No data available
**Exo-spin™ column resin**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid grey translucent</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
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<tr>
<td>Odor</td>
<td>Alcohol-like</td>
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<tr>
<td>Odor threshold</td>
<td>170 ppm</td>
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<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>pH</td>
<td>No data available</td>
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<tr>
<td>Solubility(ies)</td>
<td>Water</td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point / range</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>36-45°C - closed cup</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Upper / lower flammability or explosive limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**Exo-spin™ precipitant buffer**

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<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Viscous liquid transparent</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapor density</td>
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<tr>
<td>Odor</td>
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<tr>
<td>Odor threshold</td>
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<tr>
<td>Relative density</td>
<td>No data available</td>
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<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility(ies)</td>
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<tr>
<td>Melting / freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point / range</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
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<tr>
<td>Explosive properties</td>
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<tr>
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<td>No data available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

- **Other safety information**
  
  No data available
10. STABILITY AND REACTIVITY

**PBS**

**Reactivity**
No data available.

**Chemical stability**
Stable under recommended storage and handling conditions.

**Possibility of hazardous reactions**
No data available.

**Conditions to avoid**
No data available.

**Incompatible materials**
Strong oxidising agents.

**Hazardous decomposition products**
In the event of fire see section 5.

**Exo-spin™ column resin**

**Reactivity**
No data available.

**Chemical stability**
Stable under recommended storage and handling conditions.

**Possibility of hazardous reactions**
Stable under recommended storage and handling conditions.

**Conditions to avoid**
Avoid sources of ignition

**Incompatible materials**
Oxidising agents.

**Hazardous decomposition products**
Hazardous decomposition products should not be produced under recommended storage and handling conditions.

**Exo-spin™ precipitant buffer**

**Reactivity**
No data available.

**Chemical stability**
No data available.

**Possibility of hazardous reactions**
No data available.

**Conditions to avoid**
No data available.
Incompatible materials
Strong oxidising agents

Hazardous decomposition products
No data available. Other decomposition products.

11. TOXICOLOGICAL INFORMATION

- Information on toxicological effects

**PBS**
- Acute Toxicity: No data available
- Skin corrosion/irritation: No data available
- Serious eye damage/irritation: No data available
- Respiratory or skin sensitization: No data available
- Germ cell mutagenicity: No data available
- Carcinogenicity: No data available

Reproductive toxicity
- Specific target organ toxicity - single exposure: No data available
- Specific target organ toxicity - repeated exposure: No data available

Additional Information
- Not available

**Exo-spin™ column resin**
- Acute Toxicity: Ethanol: 4 hour exposure - vapour Inhalation LC50 - Rat - 113600 mg/m³.
- Skin corrosion/irritation: Cracking or dryness if repeatedly exposed.
- Serious eye damage/irritation: No data available
- Respiratory or skin sensitization: No data available
- Germ cell mutagenicity: No data available
- Carcinogenicity: No data available
- Reproductive toxicity: No data available
- Specific target organ toxicity - single exposure: No data available
- Specific target organ toxicity - repeated exposure: No data available

Additional Information
- Not available

**Exo-spin™ Precipitant Buffer**
- Acute Toxicity: No data available
- Skin corrosion/irritation: No data available
- Serious eye damage/irritation: No data available
- Respiratory or skin sensitization: No data available
- Germ cell mutagenicity: No data available
- Carcinogenicity: No data available
- Reproductive toxicity: No data available
- Specific target organ toxicity - single exposure: No data available
- Specific target organ toxicity - repeated exposure: No data available

Additional Information
- Not available
12. **ECOLOGICAL INFORMATION**

**PBS**

Ecotoxicity  
No data available

Persistence and degradability  
No data available

Bioaccumulative potential  
No data available

Mobility in soil  
No data available

Results of PBT and vPvB assessment  
Not available

Other adverse effects  
No data available

**Exo-spin™ column resin**

Ecotoxicity  
No data available

Persistence and degradability  
No data available

Bioaccumulative potential  
No data available

Mobility in soil  
No data available

Results of PBT and vPvB assessment  
Not available

Other adverse effects  
No data available

**Exo-spin™ precipitant buffer**

Ecotoxicity  
No data available

Persistence and degradability  
No data available

Bioaccumulative potential  
No data available

Mobility in soil  
No data available
Results of PBT and vPvB assessment
Not available

Other adverse effects
No data available

13. DISPOSAL CONSIDERATIONS

- Waste treatment methods

  | Product                  | Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation. |
  | Contaminated packaging   | Dispose in accordance with national, regional, or local legislation. |

14. TRANSPORT INFORMATION

- UN Number
  Not regulated.

- DOT regulations
  Hazard class: None

- Land transport ADR/RID (cross-border)
  Not regulated.

- Maritime transport IMDG
  Not regulated.

- Marine pollutant
  No.

- Air transport ICAO-TI and IATA-DGR
  Not regulated.

- Transport/Additional information
  Not dangerous according to the above specifications.

- Environmental hazards
  No.

- Special precautions for users
  No data available.
15. REGULATORY INFORMATION

- USA
  TSCA (Toxic Substances Control Act)
  The product is not listed.

  SARA 313
  The product is not listed.

  SARA 311/312 Hazards
  None known.

  CERCLA Reportable Quantity
  The product is not reportable under 40 CFR Part 302.4.

  California Proposition 65
  The product is not listed on California’s listing of known or potential carcinogens.

- EU
  This MSDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

- Canada
  Not WHMIS controlled. This MSDS was prepared in accordance with Hazardous Products Regulations (HPR) and WHMIS 2015.

16. OTHER INFORMATION

- Disclaimer
  THIS PRODUCT IS FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

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End of safety data sheet