SAFETY DATA SHEET
Lightning-Link® Modifier AP

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
Product name
Lightning-Link® Modifier AP
Product No.
790-0003

1.2. Relevant identified uses of the substance or mixture and uses advised against
Identified uses
Chemical reagent

1.3. Details of the supplier of the safety data sheet
Supplier
Innova Biosciences Ltd.
Babraham Hall
Babraham
Cambridge
CB22 3AT
Tel. +44(0) 1223 496170
Fax. +44(0) 1223 496172
info@innovabiosciences.com

1.4. Emergency telephone number
+44 (0) 1223 496170 (Mon-Fri, 09:00-17:00, UK Time)

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Classification (EC 1272/2008)
Physical and Chemical Hazards
Not classified.
Human health
Not classified.
Environment
Not classified.
Classification (1999/45/EEC)
Not classified.
The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

2.2. Label elements
Label In Accordance With (EC) No. 1272/2008
No pictogram required.

2.3. Other hazards
This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

<table>
<thead>
<tr>
<th>ZINC CHLORIDE</th>
<th>&lt; 1%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.: 7646-85-7</td>
<td>EC No.: 231-592-0</td>
</tr>
</tbody>
</table>
Lightning-Link® Modifier AP

<table>
<thead>
<tr>
<th>Classification (EC 1272/2008)</th>
<th>Classification (67/548/EEC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 4 - H302</td>
<td>C;R34</td>
</tr>
<tr>
<td>Skin Corr. 1B - H314</td>
<td>Xn;R22</td>
</tr>
<tr>
<td>STOT SE 3 - H335</td>
<td>N;R50/53</td>
</tr>
<tr>
<td>Aquatic Acute 1 - H400</td>
<td></td>
</tr>
<tr>
<td>Aquatic Chronic 1 - H410</td>
<td></td>
</tr>
</tbody>
</table>

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**Composition Comments**

This product does not contain any hazardous ingredients, or ingredients with national workplace exposure limits. None of the ingredients are required to be listed.

**SECTION 4: FIRST AID MEASURES**

4.1. **Description of first aid measures**

**Inhalation**
Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

**Ingestion**
Immediately rinse mouth and provide fresh air. Get medical attention if any discomfort continues.

**Skin contact**
Remove affected person from source of contamination. Wash the skin immediately with soap and water. Get medical attention if any discomfort continues.

**Eye contact**
Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention if any discomfort continues.

4.2. **Most important symptoms and effects, both acute and delayed**

**Inhalation.**
No specific symptoms noted.

**Ingestion**
No specific symptoms noted.

**Skin contact**
No specific symptoms noted.

**Eye contact**
No specific symptoms noted.

4.3. **Indication of any immediate medical attention and special treatment needed**

No specific first aid measures noted. Treat Symptomatically.

**SECTION 5: FIREFIGHTING MEASURES**

5.1. **Extinguishing media**

**Extinguishing media**
This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

5.2. **Special hazards arising from the substance or mixture**

**Hazardous combustion products**
There are no anticipated hazardous decomposition products associated with this material.

**Unusual Fire & Explosion Hazards**
No unusual fire or explosion hazards noted.

5.3. **Advice for firefighters**

**Special Fire Fighting Procedures**
No specific fire fighting procedure given.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1. **Personal precautions, protective equipment and emergency procedures**

For personal protection, see section 8.

6.2. **Environmental precautions**

Not relevant considering the small amounts used.
6.3. Methods and material for containment and cleaning up

Non-hazardous substance.

6.4. Reference to other sections

For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

No specific usage precautions noted. Avoid spilling, skin and eye contact.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container. Store at - 20°C or + 4°C

7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<table>
<thead>
<tr>
<th>Name</th>
<th>STD</th>
<th>TWA - 8 Hrs</th>
<th>STEL - 15 Min</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZINC CHLORIDE</td>
<td>WEL</td>
<td>1 mg/m3</td>
<td>2 mg/m3</td>
<td></td>
</tr>
</tbody>
</table>

WEL = Workplace Exposure Limit.

Ingredient Comments
No exposure limits noted for ingredient(s).

8.2. Exposure controls

Protective equipment

Engineering measures
No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation.

Respiratory equipment
No specific recommendations.

Hand protection
No specific hand protection noted, but gloves may still be advisable.

Eye protection
Wear approved chemical safety goggles where eye exposure is reasonably probable.

Hygiene measures
When using do not eat, drink or smoke. Wash hands at the end of each work shift and before eating, smoking and using the toilet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance | Liquid
Colour     | Colourless.
Odour      | Odourless.
Solubility | Soluble in water.

Initial boiling point and boiling range
Not available.

Melting point (°C)
Not available.
Lightning-Link® Modifier AP

Relative density
Not available.
Vapour density (air=1)
Not applicable.
Vapour pressure
Not applicable.
Evaporation rate
Not available.

pH-Value, Conc. Solution
Not available.
Viscosity
Not available.
Decomposition temperature (°C)
Not available.
Odour Threshold, Lower
Not applicable.
Flash point
Not applicable.
Auto Ignition Temperature (°C)
Not applicable.
Flammability Limit - Lower(%)
Not applicable.
Flammability Limit - Upper(%)
Not applicable.
Partition Coefficient
(N-Octanol/Water)
Not available.
Explosive properties
Not available.
Oxidising properties
Not available.

9.2. Other information
No information required.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
There are no known reactivity hazards associated with this product.

10.2. Chemical stability
Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions
Not applicable.

10.4. Conditions to avoid
There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials
Materials To Avoid
No specific, or groups of materials are likely to react to produce a hazardous situation.

10.6. Hazardous decomposition products
None under normal conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Toxicological information
Not relevant

Inhalation
May be harmful if inhaled. May cause irritation to the respiratory system.

Ingestion
May be harmful if swallowed

Skin contact
May cause skin irritation/eczema.

Eye contact
May cause temporary eye irritation.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity
Not regarded as dangerous for the environment.

12.1. Toxicity
Not applicable.

12.2. Persistence and degradability

Degradability
There are no data on the degradability of this product.

12.3. Bioaccumulative potential

Bioaccumulative potential
No data available on bioaccumulation.

Partition coefficient
Not available.

12.4. Mobility in soil

Mobility:
The product is soluble in water.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects
Not applicable.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

Road Transport Notes
Not Classified

Rail Transport Notes
Not classified.

Sea Transport Notes
Not classified.

Air Transport Notes
Not classified.

14.1. UN number
Not classified for transportation.

14.2. UN proper shipping name

Not classified for transportation.

14.3. Transport hazard class(es)

Not classified for transportation.

14.4. Packing group

Not classified for transportation.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant
No.

14.6. Special precautions for user

Not classified for transportation.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Approved Code Of Practice
Safety Data Sheets for Substances and Preparations.

EU Legislation

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date 11/01/2013
Revision 2
Supersedes date 30/08/2012

Risk Phrases In Full
R34 Causes burns.
R22 Harmful if swallowed.
R37 Irritating to respiratory system.
NC Not classified.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard Statements In Full
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.