



SAFETY DATA SHEET

Lightning-Link® HRP

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

1.1. Product identifier

Product name Lightning-Link® HRP
 Product No. 701

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	Resp. Sens. 1 - H334
Environment	Not classified.

Classification (1999/45/EEC)

R42.

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

2.2. Label elements

Contains HORSERADISH PEROXIDASE

Label In Accordance With (EC) No. 1272/2008



Signal Word Danger

Hazard Statements

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Precautionary Statements

P285	In case of inadequate ventilation wear respiratory protection.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P501	Dispose of contents/container in accordance with local regulations.

Supplementary Precautionary Statements

P261 Avoid breathing vapour/spray.

2.3. Other hazards

This product does not contain any PBT or vPvB substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.2. Mixtures**

HORSERADISH PEROXIDASE		1-10%
CAS-No.: 9003-99-0	EC No.: 232-668-6	
Classification (EC 1272/2008) Resp. Sens. 1 - H334	Classification (67/548/EEC) R42.	

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

Composition Comments

The data shown are in accordance with the latest EC Directives.

SECTION 4: FIRST AID MEASURES**4.1. Description of first aid measures****Inhalation**

Move the exposed person to fresh air at once. May cause irritation to the respiratory system. If symptoms of irritation or sensitisation occur (shortness of breath, wheezing or laboured coughing), call a doctor.

Ingestion

Immediately rinse mouth and provide fresh air. Get medical attention if any discomfort continues. Drink plenty of water.

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

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

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

May cause an asthma-like shortness of breath. Risk of sensitisation or allergic reactions among sensitive individuals.

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

Avoid dust formation. Absorb with inert, damp, non-combustible material, then flush area with water. Ensure sufficient ventilation.

6.4. Reference to other sections

For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Avoid inhalation of dust. Avoid spilling, skin and eye contact.

7.2. Conditions for safe storage, including any incompatibilities

Store at -20°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

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

Suitable respiratory protection must be used at high concentrations.

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	Freeze dried solid
Colour	Light brown.
Odour	Odourless.

Solubility Soluble in water.

Initial boiling point and boiling range

No information required.

Melting point (°C)

No information required.

Relative density

Not relevant

Vapour density (air=1)

Not applicable.

Vapour pressure

Not applicable.

Evaporation rate

Not applicable.

pH-Value, Conc. Solution

Not applicable.

Viscosity

Not applicable.

Solubility Value (G/100G H₂O@20°C)

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 applicable.

Oxidising properties

Not applicable.

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

Risk of sensitisation or allergic reactions among sensitive individuals. Avoid inhalation of dust.

Inhalation

Risk of sensitisation or allergic reactions among sensitive individuals.

Ingestion

May cause discomfort if swallowed.

Skin contact

Powder may irritate skin.

Eye contact

Particles in the eyes may cause irritation and smarting.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

Not regarded as dangerous for the environment.

12.1. Toxicity

No data available

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

Revision Date 30/08/2012

Revision 1

Risk Phrases In Full

R42 May cause sensitisation by inhalation.

Hazard Statements In Full

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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.