



**MATERIAL SAFETY DATA SHEET**  
 according to EC Directive 2001/58/EC  
**ORLA 9 protein solution**

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING**

<b>Product name</b>	Orla 9 protein solution
<b>COMPANY NAME</b>	Orla Protein Technologies
<b>Address</b>	Nanotechnology Centre, Herschel Building, Newcastle Upon Tyne, NE1 7RU
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<b>Use of the Substance/Preparation</b>	

**2. COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical nature of the preparation :**

CAS	Chemical Name	% Weight	EINECS*	Classification
N/A	Orla protein 9	< 1 %	N/A	N/A
1185-53-1	Tris Hydrochloride	< 1 %	214-684-5	N/A
29836-26-8	n-octylglucoside	1 %		N/A
60-00-4	ethylenediaminetetraacetic acid	< 1 %	200-449-4	N/A

\* EINECS - EINECS

**Symbol (s) :**

**R -phrase (s) :**

**S -phrase (s) :**

**3. HAZARDS IDENTIFICATION**

**Most important hazards :** Generally considered non hazardous

**4. FIRST AID MEASURES**

Inhalation	N/A
Eye contact	N/A
Skin contact	N/A
Ingestion	N/A

**5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media	Not applicable
Extinguishing media which must not be used for safety reasons	Not applicable
Specific methods	Not applicable
Special protective equipment for firefighters	Not applicable
Specific hazards	Not applicable

**6. ACCIDENTAL RELEASE MEASURES**

Personal precautions	Splash goggles. Gloves. Protective clothing
Environmental precautions	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Methods for cleaning up	Dilute with water and absorb with an inert dry material and place in an appropriate waste disposal container.

**7. HANDLING AND STORAGE**

Storage :

Technical measures/Precautions	Store at room temperature.
Incompatible products	N/A
Specific use(s)	Store at room temperature.

Handling :

<b>Technical measures/Precautions</b>	Avoid strong oxidizing agents.
<b>Safe handling advice</b>	Avoid inhalation; avoid contact with eye skin and clothing. Avoid prolonged exposure

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Occupational exposure controls :

<b>Engineering measures</b>	N/A
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### Exposure Limit Values :

CAS	Chemical Name	% Weight	ACGIH*
N/A	Orla protein 9	< 1 %	N/A
1185-53-1	Tris Hydrochloride	< 1 %	N/A

\* ACGIH - Occupational Exposure Limits - TWAs

### Personal protective equipment :

<b>Eye protection</b>	Safety goggles
<b>Hand protection</b>	Protective gloves
<b>Respiratory protection</b>	Not necessary
<b>Skin and body protection</b>	Lab coat
<b>Environmental exposure controls</b>	Follow local rules

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### General Information :

<b>Form</b>	Liquid
<b>Colour</b>	colourless
<b>Odour</b>	N/A

<b>Boiling point/range</b>	N/A
<b>Flash point</b>	N/A
<b>Vapour pressure</b>	N/A
<b>Vapour density</b>	N/A
<b>Partition coefficient</b>	N/A
<b>pH</b>	8

<b>Water solubility</b>	Aqueous buffer
<b>Evaporation Rate</b>	N/A
<b>Oxidizing properties</b>	N/A
<b>Explosive properties</b>	N/A
<b>Melting Point/Range</b>	N/A
<b>Density</b>	N/A
<b>Viscosity</b>	N/A
<b>Flammability</b>	Non flammable

**10. STABILITY AND REACTIVITY**

<b>Conditions to avoid</b>	Excess heat.
<b>Materials to avoid</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	N/A

**11. TOXICOLOGICAL INFORMATION**

The toxicological properties of this particular composition have not been thoroughly investigated.

**Acute toxicity :**

**Product Information :**

<b>LD50/oral/rat</b>	N/A
<b>LD50/dermal/rabbit</b>	N/A
<b>LC50/inhalation/8h/rat</b>	N/A
<b>Eye irritation</b>	N/A
<b>Skin irritation</b>	N/A
<b>mutagenic effects</b>	N/A
<b>Reproductive toxicity</b>	N/A

**12. ECOLOGICAL INFORMATION**

**Ecological information :**

<b>Toxicity to fish</b>	N/A
<b>EC50/48h/daphnia</b>	N/A
<b>EC50/72h/algae</b>	N/A

**Mobility :** N/A

**Persistence and degradability :** N/A

**Bioaccumulative potential :** N/A

**13. DISPOSAL CONSIDERATIONS**

<b>Waste from residues / unused products</b>	Waste must be disposed of in accordance with local regulations.
<b>Contaminated packaging</b>	Waste must be disposed of in accordance with local regulations.

**14. TRANSPORT INFORMATION**

**Road transport :** non hazardous

**Sea transport :** non hazardous

**Air transport :** non hazardous

**15. REGULATORY INFORMATION**

Not hazardous according to Directive 67/548/EEC

**16. OTHER INFORMATION**

**Further information for the safety data sheet :**

The chemical, physical and toxicological properties of this particular composition have not been thoroughly investigated. The above information is believed to be correct for one or more constituents of the mixture and does not purport to be all inclusive and shall be used only as guide.

The information in this document is based on the current state of 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.

Orla Protein Technologies Ltd does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. All materials may present unknown hazards and should be used with caution. Hazards other than those described herein may exist.

**End of Safety Data Sheet**