

# Material Safety Data Sheet (MSDS) for Human Leukemia Inhibitory Factor (hLIF)



## I. Identification:

**Product name:** Human Leukemia Inhibitory Factor (hLIF)  
**Product Catalog:** 8911  
**CAS#:** n/a  
**Manufacturer Supplier:** Cell Signaling Technology  
 3 Trask Lane  
 Danvers, MA 01923 USA  
 978-867-2300 TEL  
 978-867-2400 FAX  
 978-578-6737 EMERGENCY TEL

## II. Composition/Information:

**Substance Name:** Transforming Growth Factor  $\alpha$ , human, recombinant, from E.coli  
**Synonym:** hLIF  
**CAS#:** n/a

## III. Hazard Identification:

**!! CAUTION: This product is not for use in humans. It is intended for research purposes only.** To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been established.

### EMERGENCY OVERVIEW

**OSHA:** No known hazards. This substance is not classified as dangerous according to Directive 67/548/EEC.

## IV. First Aid Measures:

**Inhalation:** If inhaled, remove to fresh air. If breathing is difficult, get medical attention.  
**Ingestion:** If swallowed, wash out mouth with water provided person is conscious. Get medical attention.  
**Skin exposure:** In case of contact, immediately wash skin with soap and water for at least 15 minutes. Remove contaminated clothing. Wash clothing before reuse.  
**Eye exposure:** In case of contact with eyes, immediately flush eyes with water for at least 15 minutes. Get medical attention.

## V. Fire Fighting Measures:

**Flash Point:** Data not available.  
**Autoignition Temperature:** Data not available.  
**Explosion:** Data not available.  
**Fire extinguishing media:** Water spray, dry chemical, alcohol foam, or carbon dioxide.  
**Firefighting:** Wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes. May emit toxic fumes under fire conditions.

**VI. Accidental Release Measures:** Wear appropriate personal protective equipment. Sweep up material and avoid raising dust. Transfer to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

## VII. Handling And Storage:

Store in tightly closed container at 4°C. Avoid inhalation. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling.

## VIII. Exposure Controls/Personal:

**Ventilation System:** A system of local and/or general exhaust is recommended.  
**Skin Protection:** Wear compatible chemical resistant gloves and protective clothing.  
**Eye protection:** Wear protective safety glasses or chemical safety goggles. Maintain eye wash fountain and quick-drench facilities in work area.

## IX. Physical And Chemical Properties

**Appearance:** lyophilized powder  
**pH:** data not available  
**Melting Point:** data not available  
**Flash Point:** data not available  
**Boiling Point:** data not available  
**Freezing Point:** data not available  
**Volatile Organic Compounds:** data not available  
**Solubility in water:** soluble in water

## X. Stability and Reactivity:

**Stability:** Stable under normal conditions.  
**Conditions to avoid:** Strong oxidizing agents  
**Hazardous Decomposition:** Data not available.

## XI. Toxicological Information:

**Acute Effects:** Not established.  
**Chronic Effects:** Not established.  
**Potential Health Effects:** Not established.  
**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.  
**Skin:** May be harmful if absorbed through skin. Causes skin irritation.  
**Eyes:** Causes eye irritation.  
**Ingestion:** May be harmful if swallowed.

**XII. Ecological Information:** No data available.

**XIII. Disposal Considerations:** Dispose of in accordance with federal, state, local environmental regulations.

## XIV. Transport Information:

**DOT:** Not dangerous goods.  
**ADR/RID:** Not dangerous goods.  
**IMDG:** Not dangerous goods.  
**IATA :** Not dangerous goods.

## XV. Regulatory Information:

**Labeling according to EC Directives:**  
 This product does not need to be labeled, in accordance with EC Directives or respective laws.  
**US Regulatory Information:**  
**SARA Listed:** No.  
**Canada (WHMIS):** DSL No, NDSL No.

## XVI. Other Information:

This compound is sold only for research use only. It is not for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.