

SDS Revision Date: 12/11/2015

1. Identification

| 1.1. Product identifier | |
|---|---|
| Product Identity | Human Interferon Beta 1a, mammalian |
| Alternate Names | Product No. 11410 |
| 1.2. Relevant identified uses of the substance or mix | ture and uses advised against |
| Intended Use / Application Method See Technical Data Sheet. | |
| 1.3. Details of the supplier of the safety data sheet | |
| Company Name | PBL Assay Science 131 W Ethel Road Suite 6 Piscataway, NJ 08854 USA |
| Customer Service: PBL Assay Science | Phone: 1 (732) 777 9123 Fax: 1 (732) 777 9141 |

2. Hazard(s) identification

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements No applicable GHS categories.

[Prevention]: No GHS prevention statements [Response]: No GHS response statements [Storage]: No GHS storage statements [Disposal]: No GHS disposal statements

3. Composition/information on ingredients

There are no ingredients in this product which are classified as hazardous, and/or no hazardous ingredients above the GHS cut off percentage.

4. First aid measures

4.1. Description of first aid measures

General

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. Version No. 00



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| Inhalation | Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth. |
|-------------------|--|
| Eyes | Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention. |
| Skin | If large quantity of any component is in contact with the skin, wash with ample amounts of soap and water for at least 15 minutes. Cover the skin with an emollient. Get medical attention if irritation develops. Cold water may be used. |
| Ingestion | If the person is conscious wash mouth with water. If large quantity of any component is swallowed call a physician immediately. Loosen any tight clothing. |
| 4.2. Most importa | int symptoms and effects, both acute and delayed |
| Overview | Inhalation: Lung irritants. Skin Contact: May be skin irritants and non-sensitizers. Skin inflammation is characterized by itching, reddening, and occasional blistering. Eye Contact: Eye irritants. Ingestion: Can cause nausea and vomiting. |

5. Fire-fighting measures

5.1. Extinguishing media

Small Fire: Use DRY chemical powder. Large fire: Use water spray, fog or foam. Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Toxic Fumes

5.3. Advice for fire-fighters

Use an approved/certified respirator or equivalent. Use protective clothing to avoid contact with skin and eyes.

Cool closed containers exposed to fire by spraying them with water. Do not allow run off water and contaminants from fire fighting to enter drains or water ways.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Remove sources of ignition, do not turn lights or unprotected electrical equipment on or off. In case of a major spill or spillage in a confined space evacuate the area and check that solvent vapor levels are below the Lower Explosive Limit before re-entering.

6.2. Environmental precautions

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

While wearing safety gloves absorb material with paper towels and place in waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow the water to evacuate through the sanitary system. If necessary, repeat again with additional paper towels and place in waste disposal container.



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7. Handling and storage

7.1. Precautions for safe handling

Handling: Avoid contact with skin and eyes, and avoid ingestion.

7.2. Conditions for safe storage, including any incompatibilities

<u>Storage:</u> Refer to the storage temperatures indicated in the protocol. It is recommended to use original containers for storage.

Intended Use: Refer to the protocol supplied for proper use. If questions arise please contact info@pblassaysci.com Packaging materials: Use original containers.

Incompatible materials: May be incompatible with strong oxidizing agents.

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

There are no ingredients in this product which are classified as hazardous, and/or no hazardous ingredients above the GHS cut off percentage.

| 8.2. Exposure controls | |
|------------------------|---|
| Respiratory | Use a respirator approved for pure Sodium Azide in powder form (no Sodium Azide in product). |
| Eyes | Protective safety glasses recommended |
| Skin | A lab coat should be worn. Safety gloves are recommended to prevent skin contact. |
| Engineering Controls | Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn. |
| Other Work Practices | Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse. |

9. Physical and chemical properties

| Appearance | Colorless Liquid |
|---|------------------|
| Odor | Odorless |
| Odor threshold | Not determined |
| рН | Not Measured |
| Melting point / freezing point | Not Measured |
| Initial boiling point and boiling range | Not Measured |
| Flash Point | Not Measured |
| Evaporation rate (Ether = 1) | Not Measured |
| | |



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| Flammability (solid, gas) | Not Applicable |
|---|-------------------------------------|
| Upper/lower flammability or explosive limits | Lower Explosive Limit: Not Measured |
| | Upper Explosive Limit: Not Measured |
| Vapor pressure (Pa) | Not Measured |
| Vapor Density | Not Measured |
| Specific Gravity | Not Measured |
| Solubility in Water | Not Measured |
| Partition coefficient n-octanol/water (Log Kow) | Not Measured |
| Auto-ignition temperature | Not Measured |
| Decomposition temperature | Not Measured |
| Viscosity (cSt) | Not Measured |

9.2. Other information

May be frozen or in liquid state depending on storage conditions. The color may change with change in pH. Neat serum may have a brownish tinge.

10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.
10.2. Chemical stability
Stable under normal circumstances.
10.3. Possibility of hazardous reactions
No data available.
10.4. Conditions to avoid
Avoid extreme temperatures.
10.5. Incompatible materials
May be incompatible with strong oxidizing agents.
10.6. Hazardous decomposition products
Toxic Fumes

11. Toxicological information

There are no ingredients in this product which are classified as hazardous, and/or no hazardous ingredients above the GHS cut off percentage.

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

| Classification | Category | Hazard Description |
|-------------------------|----------|--------------------|
| Acute toxicity (oral) | | Not Available |
| Acute toxicity (dermal) | | Not Available |



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| Acute toxicity (inhalation) | Not Available |
|-------------------------------|-------------------|
| Skin corrosion/irritation | Not Available |
| Serious eye damage/irritation | Not Available |
| Respiratory sensitization | Not Available |
| Skin sensitization | Not Available |
| Germ cell mutagenicity | Not Available |
| Carcinogenicity | Not Available |
| Reproductive toxicity | Not Available |
| STOT-single exposure | Not Available |
| STOT-repeated exposure | Not Available |
| Aspiration hazard | Not Available |

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

There are no ingredients in this product which are classified as hazardous, and/or no hazardous ingredients above the GHS cut off percentage.

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.



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14. Transport information

| | DOT (Domestic Surface Transportation) |
|-------------------------------------|---|
| 14.1. UN number | Not Applicable |
| 14.2. UN proper shipping name | Not Regulated |
| 14.3. Transport hazard class(es) | DOT Hazard Class: Not Applicable |
| 14.4. Packing group | Not Applicable |
| 14.5. Environmental hazards | |
| IMDG | Marine Pollutant: No |
| 14.6. Special precautions for us | er |
| | No further information |

IMO / IMDG (Ocean Transportation) Not Regulated Not Regulated IMDG: Not Applicable Sub Class: Not Applicable Not Applicable

ICAO/IATA

Not Regulated Not Regulated **Air Class:** Not Applicable Not Applicable

15. Regulatory information

| Regulatory Overview | The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. |
|--|---|
| Toxic Substance Control Act (TSCA) | All components of this material are either listed or exempt from listing on the TSCA Inventory. |
| WHMIS Classification | Not Regulated |
| US EPA Tier II Hazards | Fire: No |
| | Sudden Release of Pressure: No |
| | Reactive: No |
| | Immediate (Acute): No |
| | Delayed (Chronic): No |

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **EPCRA 302 Extremely Hazardous:**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **EPCRA 313 Toxic Chemicals:**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **Proposition 65 - Carcinogens (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **Proposition 65 - Developmental Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **Proposition 65 - Female Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **Proposition 65 - Male Repro Toxins (>0.0%):**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **New Jersey RTK Substances (>1%) :**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute. **Pennsylvania RTK Substances (>1%) :**

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.



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16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is: Not applicable

Disclaimer: For R & D use only. Not for drug, household or other uses. Warranty: The above information is correct to the best of our knowledge. This information is not guaranteed to be all inclusive. The user should handle all materials with care using the SDS as a guideline only. PBL Biomedical Laboratories shall not be held responsible for any damage resulting from handling or from contact with the above product.

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