

Revision Date:15-Jan-2020

| Section 1-Identification of Substance/ Identification of Company    |   |
|---|---|
| Product name  | Human ERN1/IRE1 (aa 465-977, His & GST Tag)               |
|   | recombinant protein                                       |
| Product Cat. No.  | 503434  |
| Chemical Formula:   | Not available   |
| Supplier:   | NovoPro Bioscience Inc.                                   |
|   | Phone: +86-21-61941042                                    |
|   | Fax: 86-216-194-1042                                      |
| Section 2-Composition / Information on Ingredients                  |   |
| Substance/Preparation:  | Substance   |
| Ingredient Name   | Human ERN1/IRE1 (aa 465-977, His & GST Tag)               |
|   | recombinant protein                                       |
| SARA 313  | No  |
| Section 3- Hazards Identification                                   |   |
| Classification  | This substance/mixture is not considered hazardous by the |
|   | 2012 OSHA Hazard Communication Standard (29 CFR           |
|   | 1910.1200)  |
| GHS Label elements, including precautionary statements              |   |
| Signal Word   | Not classified  |
| Hazard statement(s)   | None.   |
| Precautionary Statement(s)  | None.   |
| Supplementary Hazard Information                                    | May produce an allergic reaction                          |
| Hazards not otherwise classified                                    | Not applicable.   |
| (HNOC)  |   |
| For additional information on toxicity, please refer to Section 11. |   |

| Section 4- First Aid Measures     |   |
|-----------------------------------|---|
| Oral Exposure                     | If swallowed, wash out mouth with water provided person     |
|                                   | is conscious. Call a physician.                             |
| Inhalation Exposure               | If inhaled, remove to fresh air. If breathing becomes       |
|                                   | difficult, call a physician.                                |
| Dermal Exposure                   | In case of skin contact, flush with copious amounts of      |
|                                   | water for at least 15 minutes. Remove contaminated          |
|                                   | clothing and shoes. Call a physician.                       |
| Eye Exposure                      | In case of contact with eyes, flush with copious amounts of |
|                                   | water for at least 15 minutes. Assure adequate flushing by  |
|                                   | separating the eyelids with fingers. Call a physician.      |
|                                   |   |
| Section 5- Fire Fighting Measures |   |

| Not available   |
|---|
| Not available   |
| Not available   |
|   |
| Carbon dioxide, dry chemical powder, or appropriate foam. |
| Water spray   |
|   |
|   |



VOC Content

| Protective Equipment                                  | Wear self-contained breathing apparatus and protective       |
|---|--|
|   | clothing to prevent contact with skin and eyes.              |
| Specific Hazard(s)                                    | Emits toxic fumes under fire conditions.                     |
|   |  |
| Section 6- Accidental Release Measur                  | es   |
| Procedure to be Followed in Case of                   | Evacuate area  |
| Leak or Spill   |  |
| Procedure(s) of Personal Precaution(s)                | Wear respirator, chemical safety goggles, rubber boots,      |
|   | and heavy rubber gloves                                      |
| Methods for Cleaning up                               | Sweep up, place in a bag and hold for waste disposal.        |
|   | Avoid raising dust. Ventilate area and wash spill site after |
|   | material pickup is complete.                                 |
| Contion 7 Handling and Charges                        |  |
| Section 7-Handling and Storage                        |  |
| Handling  | Avoid inholation Avoid contact with avon alin and            |
| User Exposure   | Avoid inhalation. Avoid contact with eyes, skin, and         |
| Storago   | clothing. Avoid prolonged or repeated exposure.              |
| Storage<br>Suitable                                   | Keep tightly closed  |
| Storage at -20°C                                      | Keep uguuy closed  |
| Storage at -20°C                                      |  |
| Section 8-Exposure Controls/Personal                  | Protection Equipment   |
|   | Mechanical exhaust required                                  |
| Engineering Controls<br>Personal Protective equipment | Mechanical exhaust required                                  |
| Respiratory   | Use respirators and components tested and approved           |
| Respiratory   | under appropriate government standards such as NIOSH         |
|   | (US) or CEN (EU). Respiratory protection is not required.    |
|   | Where protection from nuisance levels of dusts are desired,  |
|   | use type N95 (US) or type P1 (EN 143) respirator.            |
| Other   | Wear appropriate government approved respirator,             |
|   | chemical-resistant gloves, safety goggles, other protective  |
|   | clothing.  |
| General Hygiene Measures                              | Wash thoroughly after handling                               |
|   |  |
| Section 9- Physical and Chemical Prop                 | perties  |
| Appearance  |  |
| Physical State  | Powder   |
| Property  |  |
| Molecular Weight                                      | Not available  |
| pH  | Not available  |
| BP/BP Range   | Not available  |
| MP/MP Range   | Not available  |
| Freezing Point  | Not available  |
| Vapor Pressure  | Not available  |
| Vapor Density   | Not available  |
| Saturated Vapor Conc.                                 | Not available  |
| SG/Density<br>Bulk Density                            | Not available<br>Not available                               |
| Bulk Density<br>Odor Threshold                        | Not available<br>Not available                               |
| Volatile%   | Not available  |
| VOIDUIE /0  |  |

Not available



| Water Content                         | Not available   |
|---------------------------------------|---|
| Solvent Content                       | Not available   |
| Evaporation Rate                      | Not available   |
| Viscosity                             | Not available   |
| Surface Tension                       | Not available   |
| Partition Coefficient                 | Not available   |
| Decomposition Temp.                   | Not available   |
| Flash Point                           | Not available   |
| Explosion Limits                      | Not available   |
| Flammability                          | Not available   |
| Autoignition Temp                     | Not available   |
| Refractive Index                      | Not available   |
| Optical Rotation                      | Not available   |
| Miscellaneous Data                    | Not available   |
| Solubility                            | Not available   |
|                                       |   |
| Section 10- Stability and Reactivity  |   |
| Stability                             |   |
| Stable                                | Stable  |
| Hazardous Decomposition Products      |   |
| Hazardous Decomposition Products      | Nature of decomposition products not known.           |
| Hazardous Polymerization              |   |
| Hazardous Polymerization              | Will not occur  |
|                                       |   |
| Section 11- Toxicological Information |   |
| Route of Exposure                     |   |
| Skin Contact                          | Avoid contact with skin.                              |
| Eye contact                           | Avoid contact with eyes. May cause slight irritation. |
| Inhalation                            | Avoid breathing vapors or mists. May cause irritation |

| Inhalation                        | Avoid breathing vapors or mists. May cause irritation of respiratory tract.     |
|-----------------------------------|---|
| Ingestion                         | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. |
| Conditions Aggravated by Exposure | The toxicological properties have not been thoroughly investigated.             |

This product is for experimental uses only. The product has not been completely analyzed and all of the hazards may not be known.

| Section 12- Ecological Information |
|------------------------------------|
| No data available.                 |

| Section 13- Disposal Considerations                           |  |
|---|--|
| Appropriate Method of Disposal of<br>Substance or Preparation | Contact a licensed professional waste disposal service to<br>dispose of this material. Dissolve or mix the material with a<br>combustible solvent and burn in a chemical incinerator<br>equipped with an afterburner and scrubber. Observe all<br>federal, state, and local environmental regulations. |
| Section 14- Transport Information                             |  |
| DOT   |  |



| Non-Hazardous for Transport          | This substance is considered to be non-hazardous for transport.  |
|--------------------------------------|--|
| Non-Hazardous for Air Transport      | Non-hazardous for air transport  |
| Section 15- Regulatory Information   |  |
| US Classification and Label Text     |  |
| US Statements                        | Caution: The chemical, physical, and toxicological properties<br>of this product have not been thoroughly investigated.<br>Exercise due care.      |
| United States Regulatory information |  |
| SARA Listed                          | No   |
| Canada Regulatory information        |  |
| WHMIS Classification                 | This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR. |
| DSL                                  | No   |
| NDSL                                 | No   |

## Section 16- Other Information

NovoPro corporation MSDS is believed to be correct but only used as a guide for experienced personnel, NovoPro shall not be held liable for any damage resulting from the handling or from contact with the above product.