Revision Date:23-Jul-2024

## Section 1-Identification of Substance/ Identification of Company

| | |
|---|---|
| Product name | Recombinant PPAL protein (His tag) |
| Product Cat. No. | 544381 |
| Chemical Formula: | Not available |
| Supplier: | NovoPro Bioscience Inc.<br>Phone: +86-21-61941042<br>Fax: 86-216-194-1042 |

## Section 2-Composition / Information on Ingredients

| | |
|---|---|
| Substance/Preparation: | Substance |
| Ingredient Name | Recombinant PPAL protein (His tag) |
| 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 (HNOC) | Not applicable. |

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

| | |
|---|---|
| Flash Point | Not available |
| Autoignition Temp | Not available |
| Flammability | Not available |
| Extinguishing Media | |
| Suitable | Carbon dioxide, dry chemical powder, or appropriate foam.<br>Water spray |
| Fire Fighting | |
| 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 Measures

| | |
|---|---|
| Procedure to be Followed in Case of Leak or Spill | Evacuate area |
| 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. |

## Section 7-Handling and Storage

| | |
|---|---|
| Handling | |
| User Exposure | Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure. |
| Storage | |
| Suitable | Keep tightly closed |
| Storage at -20°C | |

## Section 8-Exposure Controls/Personal Protection Equipment

| | |
|---|---|
| Engineering Controls | Mechanical exhaust required |
| Personal Protective equipment | |
| Respiratory | Use respirators and components tested and approved 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 Properties

| | |
|---|---|
| Appearance | |
| Physical State | Lyophilized 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 | Not available |
| Bulk Density | Not available |
| Odor Threshold | Not available |
| Volatile% | Not available |
| VOC Content | 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 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 Substance or Preparation | Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations. |

## Section 14- Transport Information

| | |
|---|---|
| DOT | |
| Proper Shipping Name | None |
| Non-Hazardous for Transport | This substance is considered to be non-hazardous for transport. |
| IATA | |
| 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 of this product have not been thoroughly investigated. 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.