

Revision Date:15-Jan-2020

| Section 1-Identification of Substance/ Identification of Company | | |
|--|---|--|
| Product name | Hemoglobin beta chain [085-105] | |
| Product Cat. No. | 310298 | |
| 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 | Hemoglobin beta chain [085-105] | |
| 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 torrigity alo | | |

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. |
| | 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. |
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| Section 6- Accidental Release Measur | 200 |
|--|--|
| 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. |
| Methods for Cleaning up | Avoid raising dust. Ventilate area and wash spill site after |
| | material pickup is complete. |
| | natorial plokap 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 | clothing. Avoia proionged of repeated exposure. |
| Suitable | Keep tightly closed |
| Storage at -20°C | Roop lightly blobba |
| | |
| Section 8-Exposure Controls/Persona | l Protection Equipment |
| Engineering Controls | Mechanical exhaust required |
| Personal Protective equipment | 1 |
| 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 Pro | perties |
| Appearance Diversional State | Desired are |
| Physical State | Powder |
| Property Molecular Weight | Not available |
| Molecular Weight | Not available |
| pH 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 Decomposition Temp. Flash Point Explosion Limits Flammability Autoignition Temp Refractive Index Optical Rotation Miscellaneous Data Solubility | Not available Not available Not available Not available Not available Not available Not available Not available Not available Not available |
|--|--|
| Section 10- Stability and Reactivity | |
| Stability Stable Hazardous Decomposition Products Hazardous Decomposition Products Hazardous Polymerization Hazardous Polymerization | Stable Nature of decomposition products not known. Will not occur |
| | |
| Section 11- Toxicological Information | |
| Route of Exposure Skin Contact Eye contact Inhalation | Avoid contact with skin. Avoid contact with eyes. May cause slight irritation. Avoid breathing vapors or mists. May cause irritation of respiratory tract. |
| Ingestion Conditions Aggravated by Exposure | Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. 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.