

Revision Date:15-Jan-2020

| Section 1-Identification of Substance/ Identification of Company | |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Product name | Human Carbonic Anhydrase VB (His Tag) recombinant |
| | protein |
| Product Cat. No. | 501268 |
| Chemical Formula: | Not available |
| Supplier: | NovoPro Bioscience Inc. |
| | Phone: +86-21-61941042 |
| | Fax: 86-216-194-1042 |
| Section 2-Composition / Information of | on Ingredients |
| Substance/Preparation: | Substance |
| Ingredient Name | Human Carbonic Anhydrase VB (His 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 precautio | |
| 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. |
| Continue E. Eine Einheimen Maanmaa | |

| 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 | |



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 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 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 Bulk Density | Not available Not available |
| Bulk Density Odor Threshold | Not available 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 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 | |



| 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 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.