

Revision Date:15-Jan-2020

| Section 1-Identification of Substance/ Identification of Company |   |  |
|--|---|--|
| Product name   | Dynorphin B [1-29]  |  |
| Product Cat. No.   | 300373  |  |
| Chemical Formula:  | $C_{150}H_{224}N_{42}O_{46}$                              |  |
| Supplier:  | NovoPro Bioscience Inc.                                   |  |
| 11   | Phone: +86-21-61941042                                    |  |
|  | Fax: 86-216-194-1042                                      |  |
| Section 2-Composition / Information on Ingredients               |   |  |
| Substance/Preparation:   | Substance   |  |
| Ingredient Name  | Dynorphin B [1-29]  |  |
| 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 precaution                         |   |  |
| 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<br>water for at least 15 minutes. Assure adequate flushing by<br>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                     | 1 5   |
| 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.  |
|                                   | 1 / /   |



| Section 6- Accidental Release Measur         | 205   |
|--|---|
| 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,                                   |
| Methods for Cleaning up                      | and heavy rubber gloves<br>Sweep up, place in a bag and hold for waste disposal.          |
| Methous for Cleaning up                      | 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                             |   |
| Soction 9 Exposure Controls/Derson           | Drotaction Equipment  |
| Section 8-Exposure Controls/Personal         |   |
| Engineering Controls                         | Mechanical exhaust required   |
| Personal Protective equipment<br>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,  |
| 0  | chemical-resistant gloves, safety goggles, other protective                               |
|  | clothing.   |
| General Hygiene Measures                     | Wash thoroughly after handling  |
|  |   |
| Section 9- Physical and Chemical Pro         | perties   |
| Appearance                                   | Douvdon   |
| Physical State                               | Powder  |
| Property<br>Molecular Weight                 | 3351.5  |
| 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<br>Decomposition Temp.<br>Flash Point<br>Explosion Limits<br>Flammability<br>Autoignition Temp<br>Refractive Index<br>Optical Rotation<br>Miscellaneous Data<br>Solubility | Not available<br>Not available<br>Not available<br>Not available<br>Not available<br>Not available<br>Not available<br>Not available<br>Not available<br>Not available |
|--|--|
| Section 10- Stability and Reactivity   |  |
| Stability<br>Stable<br>Hazardous Decomposition Products<br>Hazardous Decomposition Products<br>Hazardous Polymerization<br>Hazardous Polymerization  | Stable<br>Nature of decomposition products not known.<br>Will not occur  |
|  |  |
| Section 11- Toxicological Information  |  |
| Route of Exposure<br>Skin Contact<br>Eye contact<br>Inhalation   | Avoid contact with skin.<br>Avoid contact with eyes. May cause slight irritation.<br>Avoid breathing vapors or mists. May cause irritation of<br>respiratory tract.    |
| Ingestion<br>Conditions Aggravated by Exposure   | Ingestion may cause gastrointestinal irritation, nausea,<br>vomiting and diarrhea.<br>The toxicological properties have not been thoroughly<br>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   |  |
| 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<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.