

Revision Date:15-Jan-2020

| Section 1-Identification of Substance/ Identification of Company |  |  |
|--|--|--|
| Product name   | Tachyplesin-1/TP-1   |  |
| Product Cat. No.   | 319466   |  |
| Chemical Formula:  | $C_{99}H_{151}N_{35}O_{19}S_4$   |  |
| Supplier:  | NovoPro Bioscience Inc.  |  |
| ••   | Phone: +86-21-61941042   |  |
|  | Fax: 86-216-194-1042   |  |
| Section 2-Composition / Information on Ingredients               |  |  |
| Substance/Preparation:   | Substance  |  |
| Ingredient Name  | Tachyplesin-1/TP-1   |  |
| 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<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             | 100  |
|--|--|
| 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.                                 |
|  | material plonap 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  | oroming, mora protongoù or ropoutoù orpoburo.                |
| Suitable   | Keep tightly closed  |
| Storage at -20°C                                 | F  |
|  |  |
| 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           |
| 1 0  | 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                                       |  |
| Physical State                                   | Powder   |
| Property   |  |
| Molecular Weight                                 | 2263.73  |
| 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  |
| Evaporation Rate<br>Viscosity<br>Surface Tension | Not available<br>Not available<br>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.