

Revision Date:15-Jan-2020

| Section 1-Identification of Substance/ Identification of Company |                                                           |  |
|------------------------------------------------------------------|-----------------------------------------------------------|--|
| Product name                                                     | Mastoparan-X                                              |  |
| Product Cat. No.                                                 | 314335                                                    |  |
| Chemical Formula:                                                | $C_{73}H_{126}N_{20}O_{15}S$                              |  |
| 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                                                  | Mastoparan-X                                              |  |
| 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   | 295                                                                                                     |
|----------------------------------------|---------------------------------------------------------------------------------------------------------|
| 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                       |                                                                                                         |
| Continue O Francesco Contra 1 (D       | Dustastian Equinment                                                                                    |
| Section 8-Exposure Controls/Persona    |                                                                                                         |
| Engineering Controls                   | Mechanical exhaust required                                                                             |
| Personal Protective equipment          | Use reenircters and components tested and enpressed                                                     |
| 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                             |                                                                                                         |
| Physical State                         | Powder                                                                                                  |
| Property                               |                                                                                                         |
| Molecular Weight                       | 1555.9<br>Nat available                                                                                 |
| pH                                     | Not available                                                                                           |
| BP/BP Range                            | Not available<br>Not available                                                                          |
| MP/MP Range                            |                                                                                                         |
| Freezing Point                         | Not available                                                                                           |
| Vapor Pressure                         | Not available<br>Not available                                                                          |
| Vapor Density<br>Saturated Vapor Conc  | Not available<br>Not available                                                                          |
| Saturated Vapor Conc.                  | Not available                                                                                           |
| SG/Density<br>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                                                                                           |
| Juliu00 101101011                      |                                                                                                         |



| 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.