

Revision Date:15-Jan-2020

| Section 1-Identification of Substance/ Identification of Company |   |  |
|--|---|--|
| Product name   | pkk232-8 vector   |  |
| Product Cat. No.   | V000057   |  |
| 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  | pkk232-8 vector   |  |
| 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 |
|                                   | 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.                    |
|                                   |   |



| 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<br>Diversional State        | Desired are  |
| Physical State                         | Powder   |
| Property<br>Molecular Weight           | Not available  |
| Molecular Weight                       | Not available  |
| pH<br>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.