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SDS PN: 103-398-200




| 1. Product and company identification | | | | |
|---|---|---|----------|------------------|
| 1.1 Product identifier | | | | |
| Product name | Nanobind PanDNA kit RT | | | |
| Product number(s) | 103-260-300 | | | |
| Other means of identification | This item is a box containing 5 tubes and 7 small bottles. | | | |
| | <i>Subcomponent name</i> | <i>Part #</i> | <i>#</i> | <i>Cap color</i> |
| | Proteinase K | 102-280-100 | 1 | yellow |
| | Buffer SB | 102-280-400 | 1 | pink |
| | Buffer NPL | 103-300-000 | 3 | green |
| | Buffer LTE | 102-277-100 | 1 | clear |
| | Buffer BL3 | 102-276-800 | 1 | clear |
| | Buffer CLE3 | 102-280-500 | 1 | clear |
| | Nanobind disks | 102-276-500 | 1 | clear |
| | Buffer CW1 | 102-276-900 | 1 | clear |
| | Buffer PW1 | 103-300-100 | 1 | clear |
| | Buffer CW2 | 102-277-000 | 1 | clear |
| 1.2 Relevant identified uses of the substance or mixture and uses advised against | | | | |
| Identified use | Refer to product insert. | | | |
| Restrictions on use | Research use only. | | | |
| 1.3 Details of the supplier of the substance or mixture | | | | |
| Supplier name and address | Pacific Biosciences of California, Inc. 1305 O'Brien Drive Menlo Park, CA 94025 USA https://www.pacb.com | | | |
| Supplier phone | +1.650.521.8000 | | | |
| 1.4 Emergency telephone number | | | | |
| Within USA and Canada | Call CHEMTREC 1-800-424-9300 (reference CCN# 656805) | | | |
| Outside USA and Canada | techsupport@pacb.com | | | |
| 2. Hazard(s) identification | | | | |
| 2.1 Classification of the substance or mixture | | | | |
| The kit contains hazardous substances. ¹ Each subcomponent is classified as follows. | | | | |
| <i>Subcomponent name</i> | <i>Part #</i> | <i>Classification</i> | | |
| Proteinase K | 102-280-100 | Skin irritant (category 3), Respiratory sensitizer (category 1) | | |
| Buffer SB | 102-280-400 | Not a hazardous substance or mixture. | | |
| Buffer NPL | 103-300-000 | Eye irritant (category 2), Skin irritant (category 3), Specific target organ toxicity, repeat exposure (category 1) oral, gastrointestinal, Acute aquatic toxicity (category 1) | | |



¹ Classification in accordance with 29CFR1910 (OSHA HCS) and UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

| | | |
|----------------|-------------|---|
| Buffer LTE | 102-277-100 | Not a hazardous substance or mixture. |
| Buffer BL3 | 102-276-800 | Acute toxicity - oral (category 4), Acute toxicity – inhalation (category 4) |
| Buffer CLE3 | 102-280-500 | Eye irritant (category 2), Skin irritant (category 3), Acute aquatic toxicity (category3) |
| Nanobind disks | 102-276-500 | Not a hazardous substance or mixture. |
| Buffer CW1 | 102-276-900 | Eye irritant (category 2), Skin irritant (category 2), Chronic aquatic toxicity (category3) |
| Buffer PW1 | 103-300-100 | Not a hazardous substance or mixture. |
| Buffer CW2 | 102-277-000 | Not a hazardous substance or mixture. |

2.2 GHS label elements and precautionary statements

Information is provided for the hazardous components listed in section 2.1

| <i>Product</i> | <i>Pictogram</i> | <i>Signal word</i> | <i>Hazard statement(s)</i> | <i>Precautionary statement(s)</i> |
|-------------------|---|--------------------|--|--|
| Proteinase K (PK) |  | Danger | <ul style="list-style-type: none"> Causes mild skin irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. | <ul style="list-style-type: none"> If skin irritation occurs, get medical attention. Avoid breathing mist, vapors, or spray. In case of inadequate ventilation, wear respiratory protection. If inhaled, remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms, get emergency medical help immediately. Dispose of contents and container in accordance with local regulations. |
| Buffer NPL |  | Danger | <ul style="list-style-type: none"> Causes serious eye irritation. Causes mild skin irritation. Causes damage to gastrointestinal tract through prolong or repeated exposure via oral route. Very toxic to aquatic life | <ul style="list-style-type: none"> Do not breathe mist, vapors or spray. Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid release to the environment. Wear eye protection. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists, get medical help. If skin irritation occurs, get medical help. Get medical help if you feel unwell. Collect spillage. Dispose of contents and container in accordance with local regulations. |
| Buffer BL3 |  | Warning | <ul style="list-style-type: none"> Harmful if swallowed. Harmful if inhaled. Causes serious eye irritation. Causes skin irritation. Harmful to aquatic life. | <ul style="list-style-type: none"> Do not eat, drink, or smoke when using this product. Use in well-ventilated area. Wear protective gloves and eye protection. Avoid breathing mist, vapors, or spray. Wash hands thoroughly after handling. If swallowed, rinse mouth and call poison center or doctor if you feel unwell. If inhaled, remove person to fresh air and keep comfortable for breathing. Call poison center or doctor if you feel unwell. If on skin, wash with plenty of water. If skin irritation occurs, get medical attention. If in eye, rinse cautiously for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice. Take off contaminated clothing and wash before reuse. Dispose of contents and container in accordance with local regulations. |

| | | | | |
|-------------|---|---------|---|--|
| Buffer CLE3 |  | Warning | <ul style="list-style-type: none"> Causes serious eye irritation. Causes mild skin irritation. Harmful to aquatic life. | <ul style="list-style-type: none"> Wash hands thoroughly after handling. Wear eye protection. Avoid release to the environment. If in eye, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice. If skin irritation occurs, get medical help. Dispose of contents and container in accordance with local regulations. |
| Buffer CW1 |  | Warning | <ul style="list-style-type: none"> Causes serious eye irritation. Causes skin irritation. Harmful to aquatic life with long lasting effects. | <ul style="list-style-type: none"> Wash face, hands, and any exposed skin thoroughly after handling. Avoid release to the environment. Wear eye protection. Wear protective gloves and eye/face protection. If eye irritation persists, get medical advice. Dispose of contents and container in accordance with local regulations. |

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Proteinase K is of biological origin. It is produced by the fungus *Tritirachium album Limber*.

3. Composition / information on ingredients

3.1 Substances

| | |
|--------------------------|------------------------|
| Common name and synonyms | Nanobind PanDNA kit RT |
| CAS number | None |
| Other unique identifiers | None |

3.2 Hazardous components

The following hazardous ingredients are present.

| Product | Hazardous Ingredient(s) | CAS | GHS Classification | Concentration (wt%) |
|-------------------|--------------------------------|--------------|---|---------------------|
| Proteinase K (PK) | Proteinase K | 39450-01-6 | Eye irritation (category 2), Skin irritation (category 2A), Respiratory sensitizer (category 1), Specific target organ toxicity – single exposure (category 3) | 2% |
| Buffer NPL | Cetyltrimethylammonium bromide | 57-09-0 | Acute Toxicity, oral (category 4), Skin irritation (category 2), Serious eye damage (category 1), Specific target organ toxicity, respiratory – single exposure, (category 3), Specific target organ toxicity, gastrointestinal – single exposure (category 2), Acute aquatic toxicity (category 1) | 2% |
| Buffer BL3 | Guanidine hydrochloride | 50-01-1 | Acute Toxicity, oral (category 4), Acute toxicity, inhalation (category 4), Skin irritation (category 2), Eye irritation (category 2A), Acute aquatic toxicity (category 3) | 76% |
| Buffer CLE3 | Trade secret | Trade secret | Acute Toxicity, oral (category 4), Acute toxicity, inhalation (category 4), Skin irritation (category 2), Serious eye damage (category 1), Specific target organ toxicity, respiratory – single exposure (category 3), Acute aquatic toxicity (category 2), Chronic aquatic toxicity (category 3) | < 3% |
| Buffer CW1 | Guanidine hydrochloride | 50-01-1 | Acute Toxicity, oral (category 4), Acute toxicity, inhalation (category 4), Skin irritation (category 2), Eye irritation (category 2A), Acute aquatic toxicity (category 3) | < 10% |

| | | | | |
|--|---|--------------|--|----|
| Buffer CW1 | Trade secret | Trade secret | Acute Toxicity, oral (category 4), Skin irritation (category 2), Serious eye damage (category 1), Acute aquatic toxicity (category 1), Chronic aquatic toxicity (category 1) | 1% |
| 4. First aid measures | | | | |
| 4.1 Description of first aid measures | | | | |
| General advice | Consult a physician. Show this safety data sheet to the physician. <ul style="list-style-type: none"> • Proteinase K: If experiencing respiratory symptoms, get emergency medical help immediately. • Buffer NPL: Get medical help if you feel unwell. | | | |
| If inhaled | If inhaled, move the person to fresh air. If not breathing, give artificial respiration. <ul style="list-style-type: none"> • Proteinase K: If inhaled, remove person to fresh air and keep comfortable for breathing. • Buffer BL3: If inhaled, remove person to fresh air and keep comfortable for breathing. Call poison center or doctor if you feel unwell. | | | |
| In case of skin contact | Wash off with water. <ul style="list-style-type: none"> • Proteinase K: If skin irritation occurs, get medical attention. • Buffer NPL: If skin irritation occurs, get medical help. • Buffer BL3: If on skin, wash with plenty of water. If skin irritation occurs, get medical attention. • Buffer CLE3: If skin irritation occurs, get medical help. | | | |
| In case of eye contact | Flush eyes with water. <ul style="list-style-type: none"> • Buffer NPL: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists, get medical advice. • Buffer BL3: If in eye, rinse cautiously for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice. • Buffer CLE3: If in eye, rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice. • Buffer CW1: If eye irritation persists, get medical advice. | | | |
| If swallowed | Never give anything by mouth to an unconscious person. Rinse mouth with water. <ul style="list-style-type: none"> • Buffer BL3: If swallowed, rinse mouth and call poison center or doctor if you feel unwell. | | | |
| 4.2 Most important symptoms/effects, both acute and delayed | | | | |
| No data available. Refer to section 2.2 and section 11 for additional information. | | | | |
| 4.2 Indication of any immediate medical attention and special treatment needed | | | | |
| No data available | | | | |
| 5. Fire-fighting measures | | | | |
| 5.1 Suitable extinguishing media | | | | |
| Dry chemical, carbon dioxide, foam, or water. | | | | |
| 5.2 Special hazards arising from the substance or mixture | | | | |
| Combustion will produce oxides of carbon and nitrogen. | | | | |
| 5.3 Advice for firefighters (special protective equipment or precautions) | | | | |
| Wear self-contained breathing apparatus for firefighting as necessary. | | | | |
| 6. Accidental release measures | | | | |
| 6.1 Personal precautions, protective equipment, and emergency procedures | | | | |
| Avoid breathing vapors, mist, or gas. For personal protection see section 8.0. | | | | |
| 6.2 Environmental precautions | | | | |
| Avoid release to the environment. Report spills and releases as required to appropriate authorities. | | | | |
| 6.3 Methods and materials for cleanup | | | | |
| Wear personal protective equipment, wipe up with paper towel (or similar), and contain in closed containers. | | | | |
| 6.4 Reference to other sections | | | | |
| For disposal see section 13. | | | | |

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| 7. Handling and storage | |
| 7.1 Precautions for safe handling | |
| Utilize standard good lab practices. Use in a well-ventilated area and wear standard PPE. Follow reagent specific precautions noted below. | |
| <ul style="list-style-type: none"> • Proteinase K: Avoid breathing mist, vapors, or spray. In case of inadequate ventilation, wear respiratory protection. • Buffer NPL: Do not breathe mist, vapors or spray. Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product. Avoid release to the environment. Wear eye protection. Collect spillage. • Buffer BL3: Do not eat, drink, or smoke when using this product. Use in well-ventilated area. Wear protective gloves and eye protection. Avoid breathing mist, vapors, or spray. Wash hands thoroughly after handling. Take off contaminated clothing and wash before reuse. • Buffer CLE3: Wash hands thoroughly after handling. Wear eye protection. Avoid release to the environment. • Buffer CW1: Wash face, hands and any exposed skin thoroughly after handling. Avoid release to the environment. Wear eye protection. Wear protective gloves and eye/face protection. | |
| 7.2 Conditions for safe storage, including any incompatibilities | |
| Keep containers tightly closed at the recommended storage temperature. | |
| 8. Exposure controls / personal protection | |
| 8.1 Control parameters | |
| Contains no substances with occupational exposure limit values. | |
| 8.2 Exposure controls | |
| Appropriate engineering controls: | |
| General industrial hygiene practice. No special ventilation required for normal use. | |
| Personal protective equipment (PPE): | |
| Eye/face protection | Safety glasses |
| Skin and body protection | Latex or nitrile gloves; lab coat /apron |
| Respiratory protection | None required |
| 9. Physical and chemical properties | |
| 9.1 Information on basic physical and chemical properties | |
| Appearance | Clear colorless liquids. |
| Odor | No odor |
| Odor threshold | No data available |
| pH | 7.0-8.5 |
| Melting point/freezing point | No data available |
| Initial boiling point and boiling range | No data available |
| Flash point | No data available |
| Evaporation rate | No data available |
| Flammability (solid, gas) | No data available |
| Upper/lower flammability or explosive limit | No data available |
| Vapor pressure | No data available |
| Relative density | No data available |
| Solubility(ies) | No data available |
| Partition coefficient: n-octanol/water | No data available |
| Auto-ignition temperature | No data available |
| Decomposition temperature | No data available |
| Viscosity | No data available |
| 10. Stability and reactivity | |
| Reactivity | This product is not reactive under normal conditions of storage and use. |
| Chemical stability | Stable under recommended storage conditions. |

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| Possibility of hazardous reactions | No data available |
| Conditions to avoid | No data available |
| Incompatible materials | Avoid contact with strong acids, bases and oxidizers. |
| Hazardous decomposition products | No data available. In the event of fire see section 5. |
| 11. Toxicological information | |
| 11.1 Information on likely routes of exposure | |
| The most likely route of exposure is via skin or eye contact. Exposure via inhalation or ingestion is less likely. | |
| 11.2 Symptoms related to the physical, chemical, and toxicological characteristics | |
| No data available | |
| 11.3 Delayed and immediate effects and also chronic effects from short-and long-term exposure | |
| Eyes | No data available |
| Skin | No data available |
| Inhalation | No data available |
| Ingestion | No data available |
| Chronic effects | No data available |
| Aggravated medical conditions | No data available |
| Interactions with other chemicals | No data available |
| 11.4 Numerical measures of toxicity | |
| Acute toxicity | No data available |
| Skin corrosion/irritation | No data available |
| Serious eye damage/irritation | No data available |
| Respiratory or skin sensitization | No data available |
| Germ cell mutagenicity | No data available |
| Reproductive toxicity | No data available |
| Specific target organ toxicity | No data available |
| 11.5 Carcinogenicity | |
| No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP or OSHA. | |
| 12. Ecological information | |
| Ecotoxicity | No data available |
| Persistence and degradability | No data available |
| Bioaccumulative potential | No data available |
| Mobility in soil | No data available |
| Results of PBT and vPvB assessment | None Required |
| Other adverse effects | No data available |
| 13. Disposal considerations | |
| Dispose all waste in accordance with local, regional, and national regulations. | |
| Product | See above |
| Contaminated packaging | See above |
| US EPA (RCRA, federal) waste codes | No EPA ID number. |
| State waste codes | Check your state regulations to determine applicable waste codes. |

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| 14. Transport information | |
| Transportation of this product is not regulated under ICAO, IMDG or US DOT. | |
| 15. Regulatory information | |
| 15.1 USA federal regulations | |
| SARA 302 | No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302 |
| SARA 313 | This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313 |
| SARA 311/312 | The following SARA hazards are present. <ul style="list-style-type: none"> • Buffer NPL: Eye irritant • Buffer BL3: Eye irritant, Skin irritant • Buffer CLE3: Eye irritant, Skin irritant • Buffer CW1: Eye irritant, Skin irritant |
| TSCA | Research use only. |
| 15.2 USA state regulations | |
| CA Prop 65 | This kit does not contain any chemicals known to the state of California to cause cancer or adverse reproductive health effects. |
| 16. Other information | |
| Prepared by | Pacific Biosciences of California, Inc. Environment, Health, and Safety 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com |
| Further information | The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is not a warranty or quality specification. This information relates only to the specific material designated and may not be valid for use in combination with any other material or in any other process. Research use only. Not for use in diagnostic procedures. ©2024, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third-party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at pacb.com/license . Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, SBB, Revio, Onso, Apton, Kinnex and PureTarget are trademarks of PacBio. |