

SAFETY DATA SHEET



pFB-Neo Retroviral Vector, Part Number 217561

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : pFB-Neo Retroviral Vector, Part Number 217561
Part No. (Kit) : 217561
Part No. : pFB-Neo Retroviral Vector 217561-51
pFB-Luciferase Expression Control Vector 217561-53

1.2 Relevant identified uses of the substance or mixture and uses advised against

| Identified uses | |
|--|-------------------------|
| Analytical reagent. | |
| pFB-Neo Retroviral Vector | 0.01 ml (10 µg 1 µg/µl) |
| pFB-Luciferase Expression Control Vector | 0.01 ml (10 µg 1 µg/µl) |

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Manufacturing GmbH & Co. KG
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : pFB-Neo Retroviral Vector Mixture
pFB-Luciferase Expression Control Vector Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Signal word : pFB-Neo Retroviral Vector No signal word.
pFB-Luciferase Expression Control Vector No signal word.

Date of issue/Date of revision : 24/03/2017

SECTION 2: Hazards identification

| | | |
|--------------------------|---|--|
| Hazard statements | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |
|--------------------------|---|--|

Precautionary statements

| | | |
|-------------------|---|------------------------------------|
| Prevention | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |
|-------------------|---|------------------------------------|

| | | |
|-----------------|---|------------------------------------|
| Response | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |
|-----------------|---|------------------------------------|

| | | |
|----------------|---|------------------------------------|
| Storage | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |
|----------------|---|------------------------------------|

| | | |
|-----------------|---|------------------------------------|
| Disposal | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |
|-----------------|---|------------------------------------|

| | | |
|------------------------------------|---|------------------------------------|
| Supplemental label elements | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |
|------------------------------------|---|------------------------------------|

| | | |
|---|---|------------------------------------|
| Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |
|---|---|------------------------------------|

Special packaging requirements

| | | |
|----------------------------------|---|------------------------------------|
| Tactile warning of danger | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |
|----------------------------------|---|------------------------------------|

2.3 Other hazards

| | | |
|--|---|----------------------------|
| Other hazards which do not result in classification | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | None known. None known. |
|--|---|----------------------------|

SECTION 3: Composition/information on ingredients

| | | |
|-----------------------|---|--------------------|
| 3.1 Substances | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Mixture Mixture |
|-----------------------|---|--------------------|

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

SECTION 3: Composition/information on ingredients

- [1] Substance classified with a health or environmental hazard
 [2] Substance with a workplace exposure limit
 [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
 [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

| | | |
|-----------------------------------|--|---|
| Eye contact | : pFB-Neo Retroviral Vector | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| | : pFB-Luciferase Expression Control Vector | Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. |
| Inhalation | : pFB-Neo Retroviral Vector | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | : pFB-Luciferase Expression Control Vector | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| Skin contact | : pFB-Neo Retroviral Vector | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| | : pFB-Luciferase Expression Control Vector | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| Ingestion | : pFB-Neo Retroviral Vector | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| | : pFB-Luciferase Expression Control Vector | Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur. |
| Protection of first-aiders | : pFB-Neo Retroviral Vector | No action shall be taken involving any personal risk or without suitable training. |
| | : pFB-Luciferase Expression Control Vector | No action shall be taken involving any personal risk or without suitable training. |

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

| | | |
|--------------------|--|---|
| Eye contact | : pFB-Neo Retroviral Vector | No known significant effects or critical hazards. |
| | : pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. |
| Inhalation | : pFB-Neo Retroviral Vector | No known significant effects or critical hazards. |
| | : pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. |

SECTION 4: First aid measures

| | | |
|--|---|--|
| Skin contact | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Ingestion | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| <u>Over-exposure signs/symptoms</u> | | |
| Eye contact | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No specific data. No specific data. |
| Inhalation | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No specific data. No specific data. |
| Skin contact | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No specific data. No specific data. |
| Ingestion | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No specific data. No specific data. |

4.3 Indication of any immediate medical attention and special treatment needed

| | | |
|----------------------------|---|--|
| Notes to physician | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No specific treatment. No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

| | | |
|---------------------------------------|---|--|
| Suitable extinguishing media | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | None known. None known. |

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

| | | |
|---|---|--|
| Hazards from the substance or mixture | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | In a fire or if heated, a pressure increase will occur and the container may burst. In a fire or if heated, a pressure increase will occur and the container may burst. |
| Hazardous combustion products | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No specific data. No specific data. |
| 5.3 Advice for firefighters | | |
| Special precautions for fire-fighters | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| Special protective equipment for fire-fighters | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

| | | |
|--------------------------------------|---|--|
| For non-emergency personnel | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| For emergency responders | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |
| 6.2 Environmental precautions | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). |

SECTION 6: Accidental release measures

6.3 Methods and material for containment and cleaning up

| | | |
|--------------------------------|--|---|
| Methods for cleaning up | : pFB-Neo Retroviral Vector | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |
| | pFB-Luciferase Expression Control Vector | Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor. |

| | |
|--|---|
| 6.4 Reference to other sections | : See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information. |
|--|---|

SECTION 7: Handling and storage

7.1 Precautions for safe handling

| | | |
|---|--|---|
| Protective measures | : pFB-Neo Retroviral Vector | Put on appropriate personal protective equipment (see Section 8). |
| | pFB-Luciferase Expression Control Vector | Put on appropriate personal protective equipment (see Section 8). |
| Advice on general occupational hygiene | : pFB-Neo Retroviral Vector | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |
| | pFB-Luciferase Expression Control Vector | Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures. |

7.2 Conditions for safe storage, including any incompatibilities

| | | |
|----------------|--|---|
| Storage | : pFB-Neo Retroviral Vector | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. |
| | pFB-Luciferase Expression Control Vector | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. |

7.3 Specific end use(s)

SECTION 7: Handling and storage

| | | | |
|---|---|---|--|
| Recommendations | : | pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Industrial applications, Professional applications. Industrial applications, Professional applications. |
| Industrial sector specific solutions | : | pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Recommended monitoring procedures

: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

No DNELs/DMELs available.

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

SECTION 8: Exposure controls/personal protection

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties****Appearance**

| | | |
|--|--|----------------|
| Physical state | : pFB-Neo Retroviral Vector | Liquid. |
| | pFB-Luciferase Expression Control Vector | Liquid. |
| Colour | : pFB-Neo Retroviral Vector | Not available. |
| | pFB-Luciferase Expression Control Vector | Not available. |
| Odour | : pFB-Neo Retroviral Vector | Not available. |
| | pFB-Luciferase Expression Control Vector | Not available. |
| Odour threshold | : pFB-Neo Retroviral Vector | Not available. |
| | pFB-Luciferase Expression Control Vector | Not available. |
| pH | : pFB-Neo Retroviral Vector | 7.5 |
| | pFB-Luciferase Expression Control Vector | 7.5 |
| Melting point/freezing point | : pFB-Neo Retroviral Vector | 0°C |
| | pFB-Luciferase Expression Control Vector | 0°C |
| Initial boiling point and boiling range | : pFB-Neo Retroviral Vector | 100°C |
| | pFB-Luciferase Expression Control Vector | 100°C |
| Flash point | : pFB-Neo Retroviral Vector | Not available. |
| | pFB-Luciferase Expression Control Vector | Not available. |
| Evaporation rate | : pFB-Neo Retroviral Vector | Not available. |
| | pFB-Luciferase Expression Control Vector | Not available. |

SECTION 9: Physical and chemical properties

| | | |
|---|---|--|
| Flammability (solid, gas) | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not applicable. Not applicable. |
| Upper/lower flammability or explosive limits | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Vapour pressure | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Vapour density | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Relative density | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Solubility(ies) | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water. |
| Partition coefficient: n-octanol/water | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Auto-ignition temperature | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Decomposition temperature | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Viscosity | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Explosive properties | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |
| Oxidising properties | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Not available. Not available. |

SECTION 9: Physical and chemical properties

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

| | | |
|--|---|--|
| 10.1 Reactivity | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients. |
| 10.2 Chemical stability | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | The product is stable. The product is stable. |
| 10.3 Possibility of hazardous reactions | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No specific data. No specific data. |
| 10.5 Incompatible materials | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | May react or be incompatible with oxidising materials. May react or be incompatible with oxidising materials. |
| 10.6 Hazardous decomposition products | : pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Acute toxicity estimates

Not available.

Irritation/Corrosion

Conclusion/Summary : Not available.

Sensitiser

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

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SECTION 11: Toxicological information

Not available.

Information on likely routes of exposure : pFB-Neo Retroviral Vector Not available.
 pFB-Luciferase Expression Control Vector Not available.

Potential acute health effects

Inhalation : pFB-Neo Retroviral Vector No known significant effects or critical hazards.
 pFB-Luciferase Expression Control Vector No known significant effects or critical hazards.

Ingestion : pFB-Neo Retroviral Vector No known significant effects or critical hazards.
 pFB-Luciferase Expression Control Vector No known significant effects or critical hazards.

Skin contact : pFB-Neo Retroviral Vector No known significant effects or critical hazards.
 pFB-Luciferase Expression Control Vector No known significant effects or critical hazards.

Eye contact : pFB-Neo Retroviral Vector No known significant effects or critical hazards.
 pFB-Luciferase Expression Control Vector No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : pFB-Neo Retroviral Vector No specific data.
 pFB-Luciferase Expression Control Vector No specific data.

Ingestion : pFB-Neo Retroviral Vector No specific data.
 pFB-Luciferase Expression Control Vector No specific data.

Skin contact : pFB-Neo Retroviral Vector No specific data.
 pFB-Luciferase Expression Control Vector No specific data.

Eye contact : pFB-Neo Retroviral Vector No specific data.
 pFB-Luciferase Expression Control Vector No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**Short term exposure**

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

SECTION 11: Toxicological information

Potential delayed effects : Not available.

Potential chronic health effects

| | | | |
|------------------------------|---|---|--|
| General | : | pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Carcinogenicity | : | pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Mutagenicity | : | pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Teratogenicity | : | pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Developmental effects | : | pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Fertility effects | : | pFB-Neo Retroviral Vector pFB-Luciferase Expression Control Vector | No known significant effects or critical hazards. No known significant effects or critical hazards. |

SECTION 12: Ecological information

12.1 Toxicity

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

PBT : Not applicable.

vPvB : Not applicable.

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

Regulatory information

ADR/RID / IMDG / IATA : Not regulated.

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : pFB-Neo Retroviral Vector Not applicable.
pFB-Luciferase Expression Not applicable.
Control Vector

Other EU regulations

Europe inventory : All components are listed or exempted.

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

International regulations

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SECTION 15: Regulatory information

[Chemical Weapon Convention List Schedules I, II & III Chemicals](#)

Not listed.

[Montreal Protocol \(Annexes A, B, C, E\)](#)

Not listed.

[Stockholm Convention on Persistent Organic Pollutants](#)

Not listed.

[Rotterdam Convention on Prior Informed Consent \(PIC\)](#)

Not listed.

[UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

[International lists](#)

[National inventory](#)

| | |
|-----------------------------------|--|
| Australia | : All components are listed or exempted. |
| Canada | : All components are listed or exempted. |
| China | : All components are listed or exempted. |
| Japan | : Japan inventory (ENCS) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted. |
| Malaysia | : Not determined. |
| New Zealand | : All components are listed or exempted. |
| Philippines | : All components are listed or exempted. |
| Republic of Korea | : All components are listed or exempted. |
| Taiwan | : All components are listed or exempted. |
| Turkey | : Not determined. |
| United States | : All components are listed or exempted. |

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

✔ Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number

[Procedure used to derive the classification according to Regulation \(EC\) No. 1272/2008 \[CLP/GHS\]](#)

| Classification | Justification |
|-----------------|---------------|
| Not classified. | |

[Full text of abbreviated H statements](#)

Not applicable.

[Full text of classifications \[CLP/GHS\]](#)

Not applicable.

Date of issue/ Date of revision : 24/03/2017

Date of previous issue : No previous validation.

Version : 1

SECTION 16: Other information

[Notice to reader](#)

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