

SAFETY DATA SHEET



StrataClone PCR Cloning Kit, Part Number 240205

Section 1. Identification

Product identifier : StrataClone PCR Cloning Kit, Part Number 240205
Part No. (Chemical Kit) : 240205
Part No. :
 StrataClone Vector Mix amp/kan 240205-51
 StrataClone Cloning Buffer 240205-54
 StrataClone Control Insert 240205-53
 StrataClone SoloPack Competent Cells 200185-41
 pUC 18 DNA Control Plasmid 200231-42

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

Analytical reagent.

| | |
|--------------------------------------|-------------------------|
| StrataClone Vector Mix amp/kan | 0.021 ml (Use 1 µl) |
| StrataClone Cloning Buffer | 0.063 ml |
| StrataClone Control Insert | 0.01 ml (50 ng 5 ng/µl) |
| StrataClone SoloPack Competent Cells | 1.05 ml (21 x 50 µl) |
| pUC 18 DNA Control Plasmid | 0.01 ml (0.1 ng/µl) |

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
 679 Springvale Road
 Mulgrave
 Victoria 3170, Australia
 1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

Not classified.

| | |
|--------------------------------------|--|
| StrataClone Vector Mix amp/kan | Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60% |
| StrataClone Cloning Buffer | Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30% |
| StrataClone SoloPack Competent Cells | Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10% |
| | Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 10 - 30% |
| | Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10% |

GHS label elements

Signal word :
 StrataClone Vector Mix amp/kan No signal word.
 StrataClone Cloning Buffer No signal word.
 StrataClone Control Insert No signal word.
 StrataClone SoloPack Competent Cells No signal word.
 pUC 18 DNA Control Plasmid No signal word.

Section 2. Hazard(s) identification

| | | |
|--------------------------|--|---|
| Hazard statements | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |

Precautionary statements

| | | |
|-------------------|--|-----------------|
| Prevention | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | Not applicable. |
| | StrataClone Cloning Buffer | Not applicable. |
| | StrataClone Control Insert | Not applicable. |
| | StrataClone SoloPack | Not applicable. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not applicable. |

| | | |
|-----------------|--|-----------------|
| Response | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | Not applicable. |
| | StrataClone Cloning Buffer | Not applicable. |
| | StrataClone Control Insert | Not applicable. |
| | StrataClone SoloPack | Not applicable. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not applicable. |

| | | |
|----------------|--|-----------------|
| Storage | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | Not applicable. |
| | StrataClone Cloning Buffer | Not applicable. |
| | StrataClone Control Insert | Not applicable. |
| | StrataClone SoloPack | Not applicable. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not applicable. |

| | | |
|-----------------|--|-----------------|
| Disposal | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | Not applicable. |
| | StrataClone Cloning Buffer | Not applicable. |
| | StrataClone Control Insert | Not applicable. |
| | StrataClone SoloPack | Not applicable. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not applicable. |

Supplemental label elements

| | | |
|-----------------------------------|--|-----------------|
| Additional warning phrases | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | Not applicable. |
| | StrataClone Cloning Buffer | Not applicable. |
| | StrataClone Control Insert | Not applicable. |
| | StrataClone SoloPack | Not applicable. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not applicable. |

| | | |
|--|--|-------------|
| Other hazards which do not result in classification | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | None known. |
| | StrataClone Cloning Buffer | None known. |
| | StrataClone Control Insert | None known. |
| | StrataClone SoloPack | None known. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | None known. |

Section 3. Composition and ingredient information

| | | | |
|--------------------------|---|--------------------------------|---------|
| Substance/mixture | : | StrataClone Vector Mix amp/kan | Mixture |
| | | StrataClone Cloning Buffer | Mixture |
| | | StrataClone Control Insert | Mixture |
| | | StrataClone SoloPack | Mixture |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | Mixture |

CAS number/other identifiers

| Ingredient name | % (w/w) | CAS number |
|---|-----------|------------|
| StrataClone Vector Mix amp/kan Glycerol | ≥30 - ≤60 | 56-81-5 |
| StrataClone Cloning Buffer Polyethylene glycol | ≥10 - ≤30 | 25322-68-3 |
| StrataClone SoloPack Competent Cells Glycerol | ≥10 - ≤30 | 56-81-5 |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

| | | | |
|--------------------|---|---|---|
| Eye contact | : | StrataClone Vector Mix amp/kan | 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. |
| | | StrataClone Cloning Buffer | 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. |
| | | StrataClone Control Insert | 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. |
| | | StrataClone SoloPack Competent Cells | 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. |
| | | pUC 18 DNA Control Plasmid | 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 | : | StrataClone Vector Mix amp/kan | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | | StrataClone Cloning Buffer | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | | StrataClone Control Insert | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | | StrataClone SoloPack Competent Cells | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. |
| | | pUC 18 DNA Control Plasmid | Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical |

Section 4. First aid measures

Skin contact

| | |
|--------------------------------------|--|
| StrataClone Vector Mix amp/kan | attention if symptoms occur. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| StrataClone Cloning Buffer | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| StrataClone Control Insert | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| StrataClone SoloPack Competent Cells | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |
| pUC 18 DNA Control Plasmid | Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. |

Ingestion

| | |
|--------------------------------------|---|
| StrataClone Vector Mix amp/kan | 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. |
| StrataClone Cloning Buffer | 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. |
| StrataClone Control Insert | 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. |
| StrataClone SoloPack Competent Cells | 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. |
| pUC 18 DNA Control Plasmid | 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. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact

| | |
|--------------------------------------|---|
| StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| StrataClone Control Insert | No known significant effects or critical hazards. |
| StrataClone SoloPack Competent Cells | No known significant effects or critical hazards. |
| pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |

Section 4. First aid measures

| | | | |
|---------------------|---|--------------------------------|---|
| Inhalation | : | StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | | StrataClone Control Insert | No known significant effects or critical hazards. |
| | | StrataClone SoloPack | No known significant effects or critical hazards. |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Skin contact | : | StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | | StrataClone Control Insert | No known significant effects or critical hazards. |
| | | StrataClone SoloPack | No known significant effects or critical hazards. |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Ingestion | : | StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | | StrataClone Control Insert | No known significant effects or critical hazards. |
| | | StrataClone SoloPack | No known significant effects or critical hazards. |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |

Over-exposure signs/symptoms

| | | | |
|---------------------|---|--------------------------------|-------------------|
| Eye contact | : | StrataClone Vector Mix amp/kan | No specific data. |
| | | StrataClone Cloning Buffer | No specific data. |
| | | StrataClone Control Insert | No specific data. |
| | | StrataClone SoloPack | No specific data. |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | No specific data. |
| Inhalation | : | StrataClone Vector Mix amp/kan | No specific data. |
| | | StrataClone Cloning Buffer | No specific data. |
| | | StrataClone Control Insert | No specific data. |
| | | StrataClone SoloPack | No specific data. |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | No specific data. |
| Skin contact | : | StrataClone Vector Mix amp/kan | No specific data. |
| | | StrataClone Cloning Buffer | No specific data. |
| | | StrataClone Control Insert | No specific data. |
| | | StrataClone SoloPack | No specific data. |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | No specific data. |
| Ingestion | : | StrataClone Vector Mix amp/kan | No specific data. |
| | | StrataClone Cloning Buffer | No specific data. |
| | | StrataClone Control Insert | No specific data. |
| | | StrataClone SoloPack | No specific data. |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | No specific data. |

Indication of immediate medical attention and special treatment needed, if necessary

| | | | |
|---------------------------|---|--------------------------------|---|
| Notes to physician | : | StrataClone Vector Mix amp/kan | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | | StrataClone Cloning Buffer | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | | StrataClone Control Insert | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been |

Section 4. First aid measures

| | | |
|-----------------------------------|---|--|
| | StrataClone SoloPack Competent Cells | ingested or inhaled. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | pUC 18 DNA Control Plasmid | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/ kan StrataClone Cloning Buffer StrataClone Control Insert StrataClone SoloPack Competent Cells pUC 18 DNA Control Plasmid | No specific treatment. No specific treatment. No specific treatment. No specific treatment. No specific treatment. |
| Protection of first-aiders | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/ kan StrataClone Cloning Buffer StrataClone Control Insert StrataClone SoloPack Competent Cells pUC 18 DNA Control Plasmid | No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. No action shall be taken involving any personal risk or without suitable training. |

See toxicological information (Section 11)

Section 5. Firefighting measures

Extinguishing media

| | | |
|---------------------------------------|---|---|
| Suitable extinguishing media | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/ kan StrataClone Cloning Buffer StrataClone Control Insert StrataClone SoloPack Competent Cells pUC 18 DNA Control Plasmid | Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/ kan StrataClone Cloning Buffer StrataClone Control Insert StrataClone SoloPack Competent Cells pUC 18 DNA Control Plasmid | None known. None known. None known. None known. |

Specific hazards arising from the chemical

| | |
|--|---|
| : <input checked="" type="checkbox"/> StrataClone Vector Mix amp/ kan | In a fire or if heated, a pressure increase will occur and the container may burst. |
| StrataClone Cloning Buffer | In a fire or if heated, a pressure increase will occur and the container may burst. |
| StrataClone Control Insert | In a fire or if heated, a pressure increase will occur and the container may burst. |
| StrataClone SoloPack Competent Cells | In a fire or if heated, a pressure increase will occur and the container may burst. |
| pUC 18 DNA Control Plasmid | In a fire or if heated, a pressure increase will occur and the container may burst. |

Section 5. Firefighting measures

| | | |
|---|---|---|
| Hazardous thermal decomposition products | : StrataClone Vector Mix amp/kan | Decomposition products may include the following materials: carbon dioxide carbon monoxide |
| | StrataClone Cloning Buffer | Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides |
| | StrataClone Control Insert | No specific data. |
| | StrataClone SoloPack Competent Cells | Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides |
| | pUC 18 DNA Control Plasmid | No specific data. |
| Special protective actions for fire-fighters | : StrataClone Vector Mix amp/kan | 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. |
| | StrataClone Cloning Buffer | 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. |
| | StrataClone Control Insert | 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. |
| | StrataClone SoloPack Competent Cells | 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. |
| | pUC 18 DNA Control Plasmid | 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 | : StrataClone Vector Mix amp/kan | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| | StrataClone Cloning Buffer | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| | StrataClone Control Insert | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| | StrataClone SoloPack Competent Cells | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |
| | pUC 18 DNA Control Plasmid | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. |

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

| | | |
|------------------------------------|--|---|
| For non-emergency personnel | <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | 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. |
| | StrataClone Cloning Buffer | 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. |
| | StrataClone Control Insert | 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. |
| | StrataClone SoloPack Competent Cells | 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. |
| | pUC 18 DNA Control Plasmid | 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 | <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | 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". |
| | StrataClone Cloning Buffer | 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". |
| | StrataClone Control Insert | 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". |
| | StrataClone SoloPack Competent Cells | 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". |
| | pUC 18 DNA Control Plasmid | 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". |
| Environmental precautions | <input checked="" type="checkbox"/> StrataClone Vector Mix amp/kan | 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). |
| | StrataClone Cloning Buffer | 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

| | |
|---|---|
| StrataClone Control Insert | 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). |
| StrataClone SoloPack Competent Cells | 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). |
| pUC 18 DNA Control Plasmid | 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). |

Methods and material for containment and cleaning up

| | | | |
|--------------------------------|---|---|---|
| Methods for cleaning up | : | StrataClone Vector Mix amp/kan | 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. |
| | | StrataClone Cloning Buffer | 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. |
| | | StrataClone Control Insert | 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. |
| | | StrataClone SoloPack Competent Cells | 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. |
| | | pUC 18 DNA Control Plasmid | 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. |

Section 7. Handling and storage

Precautions for safe handling

| | | | |
|----------------------------|---|---|---|
| Protective measures | : | StrataClone Vector Mix amp/kan | Put on appropriate personal protective equipment (see Section 8). |
| | | StrataClone Cloning Buffer | Put on appropriate personal protective equipment (see Section 8). |
| | | StrataClone Control Insert | Put on appropriate personal protective equipment (see Section 8). |
| | | StrataClone SoloPack Competent Cells | Put on appropriate personal protective equipment (see Section 8). |
| | | pUC 18 DNA Control Plasmid | Put on appropriate personal protective equipment (see Section 8). |

Section 7. Handling and storage

Advice on general occupational hygiene

| | |
|--------------------------------------|--|
| : StrataClone Vector Mix amp/kan | 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. |
| StrataClone Cloning Buffer | 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. |
| StrataClone Control Insert | 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. |
| StrataClone SoloPack Competent Cells | Potentially biohazardous material. 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. |
| pUC 18 DNA Control Plasmid | 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. |

Conditions for safe storage, including any incompatibilities

| | |
|----------------------------------|---|
| : StrataClone Vector Mix amp/kan | 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. See Section 10 for incompatible materials before handling or use. |
| StrataClone Cloning Buffer | 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. See Section 10 for incompatible materials before handling or use. |
| StrataClone Control Insert | 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 |

Section 7. Handling and storage

StrataClone SoloPack
Competent Cells

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. See Section 10 for incompatible materials before handling or use. 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. See Section 10 for incompatible materials before handling or use.

pUC 18 DNA Control Plasmid

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. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|--|--|
| StrataClone Vector Mix amp/kan Glycerol | Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours. |
| StrataClone Cloning Buffer Polyethylene glycol | DFG MAC-values list (Germany, 7/2015). PEAK: 8000 mg/m ³ , 4 times per shift, 15 minutes. Form: Inhalable fraction TWA: 1000 mg/m ³ 8 hours. Form: Inhalable fraction |
| StrataClone SoloPack Competent Cells Glycerol | Safe Work Australia (Australia, 1/2014). TWA: 10 mg/m ³ 8 hours. |

Appropriate engineering controls

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

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.

Individual protection measures

Section 8. Exposure controls and personal protection

- Hygiene measures** : Handle as biohazard material (Biosafety level 1). 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.
- 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.

Section 9. Physical and chemical properties

Appearance

- Physical state** : StrataClone Vector Mix amp/ kan Liquid.
StrataClone Cloning Buffer Liquid.
StrataClone Control Insert Liquid.
StrataClone SoloPack Liquid.
Competent Cells
pUC 18 DNA Control Plasmid Liquid.
- Colour** : StrataClone Vector Mix amp/ kan Not available.
StrataClone Cloning Buffer Not available.
StrataClone Control Insert Not available.
StrataClone SoloPack Not available.
Competent Cells
pUC 18 DNA Control Plasmid Not available.
- Odour** : StrataClone Vector Mix amp/ kan Not available.
StrataClone Cloning Buffer Not available.
StrataClone Control Insert Not available.
StrataClone SoloPack Not available.
Competent Cells
pUC 18 DNA Control Plasmid Not available.
- Odour threshold** : StrataClone Vector Mix amp/ kan Not available.
StrataClone Cloning Buffer Not available.
StrataClone Control Insert Not available.
StrataClone SoloPack Not available.
Competent Cells
pUC 18 DNA Control Plasmid Not available.
- pH** :

Section 9. Physical and chemical properties

| | | |
|---|--------------------------------|-----------------|
| | StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | 7.5 |
| Melting point | StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | 0°C (32°F) |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | 0°C (32°F) |
| Boiling point | StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | 100°C (212°F) |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | 100°C (212°F) |
| Flash point | StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Evaporation rate | StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Flammability (solid, gas) | StrataClone Vector Mix amp/kan | Not applicable. |
| | StrataClone Cloning Buffer | Not applicable. |
| | StrataClone Control Insert | Not applicable. |
| | StrataClone SoloPack | Not applicable. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not applicable. |
| Lower and upper explosive (flammable) limits | StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Vapour pressure | StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Vapour density | | |

Section 9. Physical and chemical properties

| | | |
|---|----------------------------------|--|
| | StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Relative density | : StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Solubility | : StrataClone Vector Mix amp/kan | Soluble in the following materials: cold water and hot water. |
| | StrataClone Cloning Buffer | Soluble in the following materials: cold water and hot water. |
| | StrataClone Control Insert | Easily soluble in the following materials: cold water and hot water. |
| | StrataClone SoloPack | Soluble in the following materials: cold water and hot water. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Easily soluble in the following materials: cold water and hot water. |
| Partition coefficient: n-octanol/water | : StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Auto-ignition temperature | : StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Decomposition temperature | : StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |
| Viscosity | : StrataClone Vector Mix amp/kan | Not available. |
| | StrataClone Cloning Buffer | Not available. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Not available. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |

Section 10. Stability and reactivity

| | | |
|-------------------|----------------------------------|--|
| Reactivity | : StrataClone Vector Mix amp/kan | No specific test data related to reactivity available for this product or its ingredients. |
| | StrataClone Cloning Buffer | No specific test data related to reactivity available for this product or its ingredients. |
| | StrataClone Control Insert | No specific test data related to reactivity available for this product or its ingredients. |
| | StrataClone SoloPack | No specific test data related to reactivity available for |

Section 10. Stability and reactivity

Competent Cells this product or its ingredients.
 pUC 18 DNA Control Plasmid No specific test data related to reactivity available for this product or its ingredients.

Chemical stability

: StrataClone Vector Mix amp/kan The product is stable.
 StrataClone Cloning Buffer The product is stable.
 StrataClone Control Insert The product is stable.
 StrataClone SoloPack The product is stable.
 Competent Cells
 pUC 18 DNA Control Plasmid The product is stable.

Possibility of hazardous reactions

: StrataClone Vector Mix amp/kan Under normal conditions of storage and use, hazardous reactions will not occur.
 StrataClone Cloning Buffer Under normal conditions of storage and use, hazardous reactions will not occur.
 StrataClone Control Insert Under normal conditions of storage and use, hazardous reactions will not occur.
 StrataClone SoloPack Under normal conditions of storage and use, hazardous reactions will not occur.
 Competent Cells Under normal conditions of storage and use, hazardous reactions will not occur.
 pUC 18 DNA Control Plasmid Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid

: StrataClone Vector Mix amp/kan No specific data.
 StrataClone Cloning Buffer No specific data.
 StrataClone Control Insert No specific data.
 StrataClone SoloPack No specific data.
 Competent Cells
 pUC 18 DNA Control Plasmid No specific data.

Incompatible materials

: StrataClone Vector Mix amp/kan May react or be incompatible with oxidising materials.
 StrataClone Cloning Buffer May react or be incompatible with oxidising materials.
 StrataClone Control Insert May react or be incompatible with oxidising materials.
 StrataClone SoloPack May react or be incompatible with oxidising materials.
 Competent Cells
 pUC 18 DNA Control Plasmid May react or be incompatible with oxidising materials.

Hazardous decomposition products

: StrataClone Vector Mix amp/kan Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 StrataClone Cloning Buffer Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 StrataClone Control Insert Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 StrataClone SoloPack Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 Competent Cells Under normal conditions of storage and use, hazardous decomposition products should not be produced.
 pUC 18 DNA Control Plasmid Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|-----------|---------|-------------|----------|
| StrataClone Vector Mix amp/kan Glycerol | LD50 Oral | Rat | 12600 mg/kg | - |
| StrataClone SoloPack Competent Cells Glycerol | LD50 Oral | Rat | 12600 mg/kg | - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|--|----------------------|---------|-------|-------------------------|-------------|
| StrataClone Vector Mix amp/kan Glycerol | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| StrataClone Cloning Buffer Polyethylene glycol | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Eyes - Mild irritant | Rabbit | - | 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 500 milligrams | - |
| StrataClone SoloPack Competent Cells Glycerol | Eyes - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |

Sensitisation

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Section 11. Toxicological information

| | | |
|---|---------------------------------------|--|
| Information on likely routes of exposure | StrataClone Vector Mix amp/kan | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| | StrataClone Cloning Buffer | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| | StrataClone Control Insert | Not available. |
| | StrataClone SoloPack | Routes of entry anticipated: Oral, Dermal, Inhalation. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | Not available. |

Potential acute health effects

| | | |
|---------------------|---------------------------------------|---|
| Eye contact | StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Inhalation | StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Skin contact | StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Ingestion | StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |

Symptoms related to the physical, chemical and toxicological characteristics

| | | |
|---------------------|---------------------------------------|-------------------|
| Eye contact | StrataClone Vector Mix amp/kan | No specific data. |
| | StrataClone Cloning Buffer | No specific data. |
| | StrataClone Control Insert | No specific data. |
| | StrataClone SoloPack | No specific data. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No specific data. |
| Inhalation | StrataClone Vector Mix amp/kan | No specific data. |
| | StrataClone Cloning Buffer | No specific data. |
| | StrataClone Control Insert | No specific data. |
| | StrataClone SoloPack | No specific data. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No specific data. |
| Skin contact | StrataClone Vector Mix amp/kan | No specific data. |
| | StrataClone Cloning Buffer | No specific data. |
| | StrataClone Control Insert | No specific data. |
| | StrataClone SoloPack | No specific data. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No specific data. |

Section 11. Toxicological information

| | | |
|------------------|----------------------------------|-------------------|
| Ingestion | : StrataClone Vector Mix amp/kan | No specific data. |
| | StrataClone Cloning Buffer | No specific data. |
| | StrataClone Control Insert | No specific data. |
| | StrataClone SoloPack | No specific data. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | 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.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

| | | |
|------------------------------|----------------------------------|---|
| General | : StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Carcinogenicity | : StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Mutagenicity | : StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Teratogenicity | : StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |
| Developmental effects | : StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | StrataClone Control Insert | No known significant effects or critical hazards. |
| | StrataClone SoloPack | No known significant effects or critical hazards. |
| | Competent Cells | |
| | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |

Section 11. Toxicological information

| | | | |
|--------------------------|---|--------------------------------|---|
| Fertility effects | : | StrataClone Vector Mix amp/kan | No known significant effects or critical hazards. |
| | | StrataClone Cloning Buffer | No known significant effects or critical hazards. |
| | | StrataClone Control Insert | No known significant effects or critical hazards. |
| | | StrataClone SoloPack | No known significant effects or critical hazards. |
| | | Competent Cells | |
| | | pUC 18 DNA Control Plasmid | No known significant effects or critical hazards. |

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|--------------------------------------|----------------------------|----------|
| StrataClone Vector Mix amp/kan Glycerol | Acute LC50 54000 mg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| StrataClone Cloning Buffer Polyethylene glycol | Acute LC50 >1000000 µg/l Fresh water | Fish - Salmo salar - Parr | 96 hours |
| StrataClone SoloPack Competent Cells Glycerol | Acute LC50 54000 mg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| Product/ingredient name | Test | Result | Dose | Inoculum |
|---|--|----------------|------|----------|
| StrataClone Vector Mix amp/kan Glycerol | 301D Ready Biodegradability - Closed Bottle Test | 93 % - 30 days | - | - |
| StrataClone SoloPack Competent Cells Glycerol | 301D Ready Biodegradability - Closed Bottle Test | 93 % - 30 days | - | - |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|---|--------------------|-----|-----------|
| StrataClone Vector Mix amp/kan Glycerol | -1.76 | - | low |
| StrataClone Cloning Buffer Polyethylene glycol | - | 3.2 | low |
| StrataClone SoloPack Competent Cells | | | |

Section 12. Ecological information

| | | | |
|----------|-------|---|-----|
| Glycerol | -1.76 | - | low |
|----------|-------|---|-----|

Mobility in soil

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

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

Section 13. Disposal considerations

Disposal methods : 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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

ADG / IMDG / IATA : Not regulated as Dangerous Goods according to the ADG Code .

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.

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

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons

5

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

International regulations

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.

Inventory list

Australia : All components are listed or exempted.

Section 15. Regulatory information

| | |
|--------------------------|--|
| Canada | : All components are listed or exempted. |
| China | : All components are listed or exempted. |
| Europe | : All components are listed or exempted. |
| Japan | : <input checked="" type="checkbox"/> Japan inventory (ENCS) : Not determined. Japan inventory (ISHL) : Not determined. |
| Malaysia | : Not determined. |
| New Zealand | : All components are listed or exempted. |
| Philippines | : Not determined. |
| Republic of Korea | : Not determined. |
| Taiwan | : <input checked="" type="checkbox"/> All components are listed or exempted. |
| Thailand | : <input checked="" type="checkbox"/> Not determined. |
| Turkey | : <input checked="" type="checkbox"/> Not determined. |
| United States | : All components are listed or exempted. |
| Viet Nam | : <input checked="" type="checkbox"/> Not determined. |

Section 16. Any other relevant information

History

| | |
|---------------------------------------|---------------|
| Date of issue/Date of revision | : 31/12/2017 |
| Date of previous issue | : 27/10/2015. |
| Version | : 3.02 |

Key to abbreviations

| |
|---|
| : ADG = Australian Dangerous Goods |
| : ATE = Acute Toxicity Estimate |
| : BCF = Bioconcentration Factor |
| : GHS = Globally Harmonized System of Classification and Labelling of Chemicals |
| : IATA = International Air Transport Association |
| : IBC = Intermediate Bulk Container |
| : IMDG = International Maritime Dangerous Goods |
| : LogPow = logarithm of the octanol/water partition coefficient |
| : MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) |
| : NOHSC = National Occupational Health and Safety Commission |
| : SUSMP = Standard Uniform Schedule of Medicine and Poisons |
| : UN = United Nations |

Procedure used to derive the classification

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

References : Not available.

Indicates information that has changed from previously issued version.

Notice to reader

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