SAFETY DATA SHEET

AffinityScript One-Step RT-PCR Kit, Part Number 600188

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

1.1 Product identifier

Product name: AffinityScript One-Step RT-PCR Kit, Part Number 600188
Part No. (Kit): 600188
Part No.:
- Herculase II RT-PCR 2X Master Mix 600188-51
- AffinityScript RT/RNase Block 600188-52

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

Identified uses

<table>
<thead>
<tr>
<th>Identified uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical reagent.</td>
</tr>
<tr>
<td>Herculase II RT-PCR 2X Master Mix</td>
</tr>
<tr>
<td>AffinityScript RT/RNase Block</td>
</tr>
</tbody>
</table>

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:
- Herculase II RT-PCR 2X Master Mix Mixture
- AffinityScript RT/RNase Block Mixture

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

Herculase II RT-PCR 2X Master Mix
H361f REPRODUCTIVE TOXICITY (Fertility) - Category 2

Ingredients of unknown toxicity:

- Herculase II RT-PCR 2X Master Mix
  - 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: 1 - 10%
  - Percentage of the mixture consisting of ingredient(s) of unknown oral toxicity: 1 - 10%

- AffinityScript RT/RNase Block
  - Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 30 - 60%

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SECTION 2: Hazards identification

Ingredients of unknown ecotoxicity

Herculase II RT-PCR 2X Master Mix
Percentage of the mixture consisting of ingredient(s) of unknown hazards to the aquatic environment: 1%

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

Hazard pictograms: Herculase II RT-PCR 2X Master Mix

Signal word: Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
Warning
No signal word.

Hazard statements:

Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
H361f - Suspected of damaging fertility.
No known significant effects or critical hazards.

Precautionary statements

Prevention: Herculase II RT-PCR 2X Master Mix
P201 - Obtain special instructions before use.
AffinityScript RT/RNase Block
P280 - Wear protective gloves. Wear protective clothing. Wear eye or face protection.
Not applicable.

Response: Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
P308 + P313 - IF exposed or concerned: Get medical attention.
Not applicable.

Storage: Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
P405 - Store locked up.
Not applicable.

Disposal: Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Not applicable.

Hazardous ingredients: Herculase II RT-PCR 2X Master Mix
Caesium chloride

Supplemental label elements: Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles: Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
Not applicable.

Special packaging requirements

Tactile warning of danger: Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
Not applicable.

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**SECTION 2: Hazards identification**

### 2.3 Other hazards

**Other hazards which do not result in classification**

- Herculase II RT-PCR 2X Master Mix: None known.
- AffinityScript RT/RNase Block: None known.

### SECTION 3: Composition/information on ingredients

#### 3.1 Substances

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Identifiers</th>
<th>%</th>
<th>Regulation (EC) No. 1272/2008 [CLP]</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>Caesium chloride</td>
<td>EC: 231-600-2, CAS: 7647-17-8</td>
<td>≤5</td>
<td>Repr. 2, H361f (Fertility, Male) (oral)</td>
</tr>
</tbody>
</table>

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.

**Type**

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [5] Substance of equivalent concern
- [6] Additional disclosure due to company policy

#### 4.1 Description of first aid measures

**Eye contact**

- Herculase II RT-PCR 2X Master Mix
- AffinityScript RT/RNase Block

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

**Inhalation**

- Herculase II RT-PCR 2X Master Mix
- AffinityScript RT/RNase Block

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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SECTION 4: First aid measures

<table>
<thead>
<tr>
<th>Protection of first-aiders</th>
<th>Herculase II RT-PCR 2X Master Mix</th>
<th>AffinityScript RT/RNase Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>AffinityScript RT/RNase Block</td>
<td></td>
</tr>
<tr>
<td>Ingestion</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>AffinityScript RT/RNase Block</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>AffinityScript RT/RNase Block</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>AffinityScript RT/RNase Block</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>AffinityScript RT/RNase Block</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>AffinityScript RT/RNase Block</td>
</tr>
<tr>
<td>Over-exposure signs/symptoms</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>AffinityScript RT/RNase Block</td>
</tr>
</tbody>
</table>

**Skin contact**
- **Herculase II RT-PCR 2X Master Mix**
  - Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- **AffinityScript RT/RNase Block**
  - 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.

**Ingestion**
- **Herculase II RT-PCR 2X Master Mix**
  - Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- **AffinityScript RT/RNase Block**
  - Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

**Over-exposure signs/symptoms**
- **Eye contact**
  - **Herculase II RT-PCR 2X Master Mix**
    - No specific data.
  - **AffinityScript RT/RNase Block**
    - No specific data.

**4.2 Most important symptoms and effects, both acute and delayed**

**Potential acute health effects**

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>No known significant effects or critical hazards.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

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SECTION 4: First aid measures

<table>
<thead>
<tr>
<th>Condition</th>
<th>Substance</th>
<th>Adverse Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>reduced foetal weight, increase in foetal deaths, skeletal malformations</td>
</tr>
<tr>
<td></td>
<td>AffinityScript RT/RNase Block</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>reduced foetal weight, increase in foetal deaths, skeletal malformations</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>AffinityScript RT/RNase Block</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

4.3 Indication of any immediate medical attention and special treatment needed

| Notes to physician         | Herculase II RT-PCR 2X Master Mix | In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
|----------------------------| AffinityScript RT/RNase Block | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments        | Herculase II RT-PCR 2X Master Mix | No specific treatment. |
|                            | AffinityScript RT/RNase Block | No specific treatment. |

SECTION 5: Firefighting measures

5.1 Extinguishing media

| Suitable extinguishing media | Herculase II RT-PCR 2X Master Mix | Use an extinguishing agent suitable for the surrounding fire. |
|-------------------------------| AffinityScript RT/RNase Block | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | Herculase II RT-PCR 2X Master Mix | None known. |
|                               | AffinityScript RT/RNase Block | None known. |

5.2 Special hazards arising from the substance or mixture

| Hazards from the substance or mixture | Herculase II RT-PCR 2X Master Mix | In a fire or if heated, a pressure increase will occur and the container may burst. |
|---------------------------------------| AffinityScript RT/RNase Block | In a fire or if heated, a pressure increase will occur and the container may burst. |
| Hazardous combustion products         | Herculase II RT-PCR 2X Master Mix | Decomposition products may include the following materials: |
|                                      | AffinityScript RT/RNase Block | carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides, halogenated compounds, metal oxide/oxides |

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SECTION 5: Firefighting measures

5.3 Advice for firefighters

**Special precautions for fire-fighters**

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**

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**

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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders**

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

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).

6.3 Methods and material for containment and cleaning up
SECTION 6: Accidental release measures

Methods for cleaning up

- **Herculase II RT-PCR 2X Master Mix**: 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.

- **AffinityScript RT/RNase Block**: 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**

- **Herculase II RT-PCR 2X Master Mix**: Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

- **AffinityScript RT/RNase Block**: Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene**

- **Herculase II RT-PCR 2X Master Mix**: 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.

- **AffinityScript RT/RNase Block**: 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**

- **Herculase II RT-PCR 2X Master Mix**: 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. Store locked up. 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.

- **AffinityScript RT/RNase Block**: 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.
AffinityScript One-Step RT-PCR Kit, Part Number 600188

SECTION 7: Handling and storage

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.

7.3 Specific end use(s)

Recommendations

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript RT/RNase Block</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m³ 8 hours. Form: Mist</td>
</tr>
<tr>
<td>Glycerol</td>
<td></td>
</tr>
</tbody>
</table>

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.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Exposure limit values</th>
</tr>
</thead>
<tbody>
<tr>
<td>AffinityScript RT/RNase Block</td>
<td>EH40/2005 WELs (United Kingdom (UK), 12/2011). TWA: 10 mg/m³ 8 hours. Form: Mist</td>
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<tr>
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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.

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SECTION 8: Exposure controls/personal protection

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.

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: Herculase II RT-PCR 2X Master Mix Liquid.
AffinityScript RT/RNase Block Liquid.

Colour: Herculase II RT-PCR 2X Master Mix Not available.
AffinityScript RT/RNase Block Not available.

Odour: Herculase II RT-PCR 2X Master Mix Not available.
AffinityScript RT/RNase Block Not available.

Odour threshold: Herculase II RT-PCR 2X Master Mix Not available.
AffinityScript RT/RNase Block Not available.

pH: Herculase II RT-PCR 2X Master Mix 10
AffinityScript RT/RNase Block 8

Melting point/freezing point: Herculase II RT-PCR 2X Master Mix Not available.
AffinityScript RT/RNase Block Not available.

Initial boiling point and boiling range: Herculase II RT-PCR 2X Master Mix Not available.
AffinityScript RT/RNase Block Not available.
### SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Herculase II RT-PCR 2X Master Mix</th>
<th>AffinityScript RT/RNase Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td></td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
<td></td>
</tr>
</tbody>
</table>

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SECTION 9: Physical and chemical properties

9.2 Other information
No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity
Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability
Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
The product is stable.

10.3 Possibility of hazardous reactions
Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid
Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
No specific data.

10.5 Incompatible materials
Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
May react or be incompatible with oxidising materials.

10.6 Hazardous decomposition products
Herculase II RT-PCR 2X Master Mix
AffinityScript RT/RNase Block
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

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Dose</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>LD50 Oral</td>
<td>Rat</td>
<td>2004 mg/kg</td>
<td>-</td>
</tr>
</tbody>
</table>

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

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Product</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td></td>
<td>AffinityScript RT/RNase Block</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Potential acute health effects

Inhalation:
- Herculase II RT-PCR 2X Master Mix: No known significant effects or critical hazards.
- AffinityScript RT/RNase Block: No known significant effects or critical hazards.

Ingestion:
- Herculase II RT-PCR 2X Master Mix: No known significant effects or critical hazards.
- AffinityScript RT/RNase Block: No known significant effects or critical hazards.

Skin contact:
- Herculase II RT-PCR 2X Master Mix: No known significant effects or critical hazards.
- AffinityScript RT/RNase Block: No known significant effects or critical hazards.

Eye contact:
- Herculase II RT-PCR 2X Master Mix: No specific data.
- AffinityScript RT/RNase Block: No specific data.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:
- Herculase II RT-PCR 2X Master Mix: Adverse symptoms may include the following:
  - reduced foetal weight
  - increase in foetal deaths
  - skeletal malformations
- AffinityScript RT/RNase Block: No specific data.

Ingestion:
- Herculase II RT-PCR 2X Master Mix: Adverse symptoms may include the following:
  - reduced foetal weight
  - increase in foetal deaths
  - skeletal malformations
- AffinityScript RT/RNase Block: No specific data.

Skin contact:
- Herculase II RT-PCR 2X Master Mix: Adverse symptoms may include the following:
  - reduced foetal weight
  - increase in foetal deaths
  - skeletal malformations
- AffinityScript RT/RNase Block: No specific data.

Eye contact:
- Herculase II RT-PCR 2X Master Mix: No specific data.
- AffinityScript RT/RNase Block: 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

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SECTION 11: Toxicological information

Potential immediate effects: Not available.
Potential delayed effects: Not available.

Potential chronic health effects:
- General: Herculase II RT-PCR 2X Master Mix AffinityScript RT/RNase Block
  - No known significant effects or critical hazards.
- Carcinogenicity: Herculase II RT-PCR 2X Master Mix AffinityScript RT/RNase Block
  - No known significant effects or critical hazards.
- Mutagenicity: Herculase II RT-PCR 2X Master Mix AffinityScript RT/RNase Block
  - No known significant effects or critical hazards.
- Teratogenicity: Herculase II RT-PCR 2X Master Mix AffinityScript RT/RNase Block
  - No known significant effects or critical hazards.

Developmental effects:
- Herculase II RT-PCR 2X Master Mix AffinityScript RT/RNase Block
  - No known significant effects or critical hazards.
- Fertility effects:
  - Herculase II RT-PCR 2X Master Mix AffinityScript RT/RNase Block: Suspected of damaging fertility.
  - AffinityScript RT/RNase Block: No known significant effects or critical hazards.

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Product/ingredient name</th>
<th>Result</th>
<th>Species</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herculase II RT-PCR 2X Master Mix Caesium chloride</td>
<td>Acute EC50 400000 μg/l Fresh water</td>
<td>Crustaceans - Cyclops abyssorum ssp. prealpinus - Adult, Daphnia - Daphnia hyalina - Adult</td>
<td>48 hours</td>
</tr>
<tr>
<td></td>
<td>Acute LC50 7400 to 8700 μg/l Fresh water</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

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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 spill material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport 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

Herculase II RT-PCR 2X Master Mix

AffinityScript RT/RNase Block

Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

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**SECTION 15: Regulatory information**

**Prior Informed Consent (PIC) (649/2012/EU)**
Not listed.

**Seveso Directive**
This product is not controlled under the Seveso Directive.

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

**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]**
### SECTION 16: Other information

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Herculase II RT-PCR 2X Master Mix</td>
<td>Calculation method</td>
</tr>
<tr>
<td>Repr. 2, H361f (Fertility)</td>
<td></td>
</tr>
</tbody>
</table>

#### Full text of abbreviated H statements

| Herculase II RT-PCR 2X Master Mix | |
| H361f (oral) | Suspected of damaging fertility if swallowed. |
| H361f | Suspected of damaging fertility. |

#### Full text of classifications [CLP/GHS]

| Herculase II RT-PCR 2X Master Mix | |
| Repr. 2, H361f (oral) | REPRODUCTIVE TOXICITY (Fertility) (oral) - Category 2 |
| Repr. 2, H361f | REPRODUCTIVE TOXICITY (Fertility) - Category 2 |

**Notice to reader**

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