SAFETY DATA SHEET
Agilent RNA Spike-In Kit

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

1.1 Product identifier

Product name: Agilent RNA Spike-In Kit
Part No. (Kit): 5188-5279

Part No.: Spike B Mix 5972-3565
Spike A Mix 5972-3564
Dilution Buffer 5972-3562

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

<table>
<thead>
<tr>
<th>Identified uses</th>
<th>Part No. (Kit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical reagent.</td>
<td></td>
</tr>
<tr>
<td>Spike B Mix 0.01 ml</td>
<td></td>
</tr>
<tr>
<td>Spike A Mix 0.01 ml</td>
<td></td>
</tr>
<tr>
<td>Dilution Buffer 1.2 ml</td>
<td></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:
Spike B Mix Mixture
Spike A Mix Mixture
Dilution Buffer Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Not classified.

Ingredients of unknown toxicity:
Spike B Mix Not applicable.
Spike A Mix Not applicable.
Dilution Buffer Not applicable.

Classification according to Directive 1999/45/EC [DPD]
Spike B Mix The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
Spike A Mix The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.
Dilution Buffer The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Date of issue/Date of revision: 20/09/2013
SECTION 2: Hazards identification

Classification
- Spike B Mix: Not classified.
- Spike A Mix: Not classified.
- Dilution Buffer: Not classified.

Physical/chemical hazards
- Spike B Mix: Not applicable.
- Spike A Mix: Not applicable.
- Dilution Buffer: Not applicable.

Human health hazards
- Spike B Mix: Not applicable.
- Spike A Mix: Not applicable.
- Dilution Buffer: Not applicable.

Environmental hazards
- Spike B Mix: Not applicable.
- Spike A Mix: Not applicable.
- Dilution Buffer: Not applicable.

Other hazards which do not result in classification
- Spike B Mix: None known.
- Spike A Mix: None known.
- Dilution Buffer: None known.

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

2.2 Label elements

Signal word
- Spike B Mix: No signal word.
- Spike A Mix: No signal word.
- Dilution Buffer: No signal word.

Hazard statements
- Spike B Mix: No known significant effects or critical hazards.
- Spike A Mix: No known significant effects or critical hazards.
- Dilution Buffer: No known significant effects or critical hazards.

Precautionary statements

Prevention
- Spike B Mix: Not applicable.
- Spike A Mix: Not applicable.
- Dilution Buffer: Not applicable.

Response
- Spike B Mix: Not applicable.
- Spike A Mix: Not applicable.
- Dilution Buffer: Not applicable.

Storage
- Spike B Mix: Not applicable.
- Spike A Mix: Not applicable.
- Dilution Buffer: Not applicable.

Disposal
- Spike B Mix: Not applicable.
- Spike A Mix: Not applicable.
- Dilution Buffer: Not applicable.

Hazardous ingredients
- Spike B Mix: None known.
- Spike A Mix: None known.
- Dilution Buffer: None known.

Supplemental label elements
- Spike B Mix: None known.
- Spike A Mix: None known.
- Dilution Buffer: None known.

Special packaging requirements

Tactile warning of danger
- Spike B Mix: Not applicable.
- Spike A Mix: Not applicable.
- Dilution Buffer: Not applicable.

2.3 Other hazards

Other hazards which do not result in classification
- Spike B Mix: None known.
- Spike A Mix: None known.
- Dilution Buffer: None known.

SECTION 3: Composition/information on ingredients

Substance/mixture
- Spike B Mix: Mixture
- Spike A Mix: Mixture
- Dilution Buffer: Mixture

Product/ingredient name
No hazardous ingredient

Date of issue/Date of revision: 20/09/2013
SECTION 3: Composition/information on ingredients

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit 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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact
- Spike B Mix: 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.
- Spike A Mix: 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.
- Dilution 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.

Inhalation
- Spike B Mix: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Spike A Mix: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- Dilution Buffer: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

Skin contact
- Spike B Mix: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Spike A Mix: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Dilution Buffer: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Ingestion
- Spike B Mix: 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.
- Spike A Mix: 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.
- Dilution 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.

Protection of first-aiders
- Spike B Mix: No action shall be taken involving any personal risk or without suitable training.
- Spike A Mix: No action shall be taken involving any personal risk or without suitable training.
- Dilution Buffer: No action shall be taken involving any personal risk or without suitable training.
SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

<table>
<thead>
<tr>
<th></th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</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>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
</tbody>
</table>

Over-exposure signs/symptoms

<table>
<thead>
<tr>
<th></th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician

<table>
<thead>
<tr>
<th></th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
<td>Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

Specific treatments

<table>
<thead>
<tr>
<th></th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye contact</td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
<td>No specific treatment.</td>
</tr>
</tbody>
</table>

SECTION 5: Firefighting measures

5.1 Extinguishing media

<table>
<thead>
<tr>
<th></th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suitable extinguishing media</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>None known.</td>
<td>None known.</td>
<td>None known.</td>
</tr>
</tbody>
</table>

5.2 Special hazards arising from the substance or mixture

<table>
<thead>
<tr>
<th></th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazards from the substance or mixture</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
<td>In a fire or if heated, a pressure increase will occur and the container may burst.</td>
</tr>
<tr>
<td>Hazardous combustion products</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

Date of issue/Date of revision: 20/09/2013
SECTION 5: Firefighting measures

5.3 Advice for firefighters
Special precautions for firefighters
- Spike B Mix: 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.
- Spike A Mix: 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.
- Dilution 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.

Special protective equipment for firefighters
- Spike B Mix: 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.
- Spike A Mix: 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.
- Dilution Buffer: 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
- Spike B Mix: 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.
- Spike A Mix: 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.
- Dilution 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.

For emergency responders
- Spike B Mix: 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".
- Spike A Mix: 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".
- Dilution 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".

Date of issue/Date of revision: 20/09/2013
SECTION 6: Accidental release measures

6.2 Environmental precautions

Spike B Mix
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).

Spike A Mix
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).

Dilution 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).

Spike B 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.

Spike A 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.

Dilution 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.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up

Spike B 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.

Spike A 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.

Dilution 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.

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

Spike B Mix
Put on appropriate personal protective equipment (see Section 8).

Spike A Mix
Put on appropriate personal protective equipment (see Section 8).

Dilution Buffer
Put on appropriate personal protective equipment (see Section 8).

Advice on general occupational hygiene

Spike B 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.

Spike A 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.

Dilution 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.
### SECTION 7: Handling and storage

#### 7.2 Conditions for safe storage, including any incompatibilities

| Spike B 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. 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. |
| Spike A 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. 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. |
| Dilution 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. |

#### 7.3 Specific end use(s)

| Recommendations | Spike B Mix | Industrial applications, Professional applications. |
| Spike A Mix | Industrial applications, Professional applications. |
| Dilution Buffer | Industrial applications, Professional applications. |

**Industrial sector specific solutions:** Not applicable.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**Recommended monitoring procedures**

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

**Derived effect levels**

No DNELs available.

**Predicted effect concentrations**

No PNECs available.

#### 8.2 Exposure controls

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Date of issue/Date of revision: 20/09/2013
SECTION 8: Exposure controls/personal protection

Appropriate engineering controls: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Individual protection measures

Hand protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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.

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.

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.

Skin protection

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: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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


Odour: Spike B Mix Not available. Spike A Mix Not available. Dilution Buffer Not available.

Odour threshold: Spike B Mix Not available. Spike A Mix Not available. Dilution Buffer Not available.

pH: Spike B Mix 6.4 Spike A Mix 6.4 Dilution Buffer 7

Melting point/freezing point: Spike B Mix 1°C Spike A Mix 0°C Dilution Buffer 0°C

Initial boiling point and boiling range: Spike B Mix 100°C Spike A Mix 100°C Dilution Buffer 100°C
## SECTION 9: Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
<td>[Product does not sustain combustion.]</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
<td>Easily soluble in the following materials: cold water and hot water.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
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<td>Viscosity</td>
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<tr>
<td>Explosive properties</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### 9.2 Other information
No additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity
- Spike B Mix: No specific test data related to reactivity available for this product or its ingredients.
- Spike A Mix: No specific test data related to reactivity available for this product or its ingredients.
- Dilution Buffer: No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability
- Spike B Mix: The product is stable.
- Spike A Mix: The product is stable.
- Dilution Buffer: The product is stable.
SECTION 10: Stability and reactivity

10.3 Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Material</th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spike B Mix</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spike A Mix</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dilution Buffer</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.4 Conditions to avoid

<table>
<thead>
<tr>
<th>Material</th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
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<tbody>
<tr>
<td>Spike B Mix</td>
<td>No specific data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spike A Mix</td>
<td>No specific data.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dilution Buffer</td>
<td>No specific data.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Material</th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
</tr>
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<tbody>
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<td>Spike B Mix</td>
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<td></td>
</tr>
<tr>
<td>Spike A Mix</td>
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<td></td>
</tr>
<tr>
<td>Dilution Buffer</td>
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</table>

10.6 Hazardous decomposition products

<table>
<thead>
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<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
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</thead>
<tbody>
<tr>
<td>Spike B Mix</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
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</tr>
<tr>
<td>Spike A Mix</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
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<td></td>
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<td>Dilution Buffer</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 11: Toxicological information

11.1 Information on toxicological effects

**Acute toxicity**
Not available.

**Acute toxicity estimates**
Not available.

**Irritation/Corrosion**

**Conclusion/Summary**
Not available.

**Sensitiser**

**Conclusion/Summary**
Not available.

**Chronic toxicity / Carcinogenicity / Mutagenicity / Teratogenicity / Reproductive toxicity**
Not available.

**Specific target organ toxicity (single exposure)**
Not available.

**Specific target organ toxicity (repeated exposure)**
Not available.

**Aspiration hazard**
Not available.

**Information on the likely routes of exposure**
Not available.

**Potential acute health effects**

**Inhalation**

<table>
<thead>
<tr>
<th>Material</th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
<th>Dilution Buffer</th>
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<tbody>
<tr>
<td>Spike B Mix</td>
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<td></td>
<td></td>
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<tr>
<td>Spike A Mix</td>
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**Ingestion**

<table>
<thead>
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**Skin contact**

<table>
<thead>
<tr>
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<tr>
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Date of issue/Date of revision: 20/09/2013
## SECTION 11: Toxicological information

### Potential chronic health effects

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<tr>
<td>General</td>
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<td>Carcinogenicity</td>
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<td>Fertility effects</td>
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### Toxicokinetics

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<tbody>
<tr>
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<tr>
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### Symptoms related to the physical, chemical and toxicological characteristics

#### Eye contact

<table>
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#### Skin contact

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#### Ingestion

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<th>Dilution Buffer</th>
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<td>Inhalation</td>
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</table>

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

<table>
<thead>
<tr>
<th>Type</th>
<th>Spike B Mix</th>
<th>Spike A Mix</th>
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<tbody>
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<tr>
<td>Delayed effects</td>
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#### Long term exposure

<table>
<thead>
<tr>
<th>Type</th>
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<tr>
<td>Delayed effects</td>
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<td>Not available.</td>
<td>Not available.</td>
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</table>
SECTION 11: Toxicological information

Elimination:
- Spike B Mix: Not available.
- Spike A Mix: Not available.
- Dilution Buffer: Not available.

Other information: Not available.

SECTION 12: Ecological information

12.1 Toxicity
Conclusion/Summary: Not available.

12.2 Persistence and degradability
Conclusion/Summary: Not available.

12.3 Bioaccumulative potential
Not available.

12.4 Mobility in soil
- Soil/water partition coefficient ($K_{OC}$): Not available.
- Mobility: Not available.

12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

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

SECTION 13: Disposal considerations

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

Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

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

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

SECTION 14: Transport information

Regulatory information
ADR/RID / IMDG / IATA: Not regulated.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not available.

Date of issue/Date of revision: 20/09/2013
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

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

Not applicable.

Other EU regulations

Europe inventory: At least one component is not listed.
Black List Chemicals: Not listed
Priority List Chemicals: Not listed
Integrated pollution prevention and control list (IPPC) - Air: Not listed
Integrated pollution prevention and control list (IPPC) - Water: Not listed

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]

<table>
<thead>
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<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Full text of abbreviated R phrases:</td>
<td></td>
</tr>
<tr>
<td>Spike B Mix</td>
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</tr>
<tr>
<td>Spike A Mix</td>
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</tr>
<tr>
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</tr>
<tr>
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</tr>
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<tr>
<td>Spike A Mix</td>
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<td>Dilution Buffer</td>
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</tbody>
</table>

Date of issue/Date of revision: 20/09/2013
Date of previous issue: 27/06/2011
Version: 4

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