

SAFETY DATA SHEET

Agilent RNA Spike-In Kit, Part Number 5188-5279

Section 1. Identification

1.1 Product identifier

Product name : Agilent RNA Spike-In Kit, Part Number 5188-5279
Part No. (Chemical Kit) : 5188-5279
Part No. : Spike B Mix 5972-3565
 Spike A Mix 5972-3564
 Dilution Buffer 5972-3562
Validation date : 11/21/2017

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

Material uses : Analytical reagent.
 Spike B Mix 0.01 ml
 Spike A Mix 0.01 ml
 Dilution Buffer 1.2 ml

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer : Agilent Technologies, Inc.
 5301 Stevens Creek Blvd
 Santa Clara, CA 95051, USA
 800-227-9770

1.4 Emergency telephone number

In case of emergency : CHEMTREC®: 1-800-424-9300

Section 2. Hazards identification

2.1 Classification of the substance or mixture

| | |
|--|--|
| OSHA/HCS status : <input checked="" type="checkbox"/> Spike B Mix | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. |
| <input type="checkbox"/> Spike A Mix | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. |
| <input type="checkbox"/> Dilution Buffer | While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product. |

Classification of the substance or mixture

Not classified.

2.2 GHS label elements

Signal word :

Section 2. Hazards identification

| | | |
|---|-----------------|---|
| | ☑ 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. |
| <u>Precautionary statements</u> | | |
| 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. |
| Supplemental label elements | : ☑ Spike B Mix | None known. |
| | Spike A Mix | None known. |
| | Dilution Buffer | None known. |
| <u>2.3 Other hazards</u> | | |
| Hazards not otherwise classified | : ☑ 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 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 and hence require reporting in this section.

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

Section 4. First aid measures

4.1 Description of necessary 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. |

Section 4. First aid measures

| | | |
|---------------------|-----------------|---|
| 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. |

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

| | | |
|---------------------|---|---|
| Eye contact | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Inhalation | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Ingestion | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |

Over-exposure signs/symptoms

Section 4. First aid measures

| | | |
|---------------------|-----------------|-------------------|
| Eye contact | : Spike B Mix | No specific data. |
| | Spike A Mix | No specific data. |
| | Dilution Buffer | No specific data. |
| Inhalation | : Spike B Mix | No specific data. |
| | Spike A Mix | No specific data. |
| | Dilution Buffer | No specific data. |
| Skin contact | : Spike B Mix | No specific data. |
| | Spike A Mix | No specific data. |
| | Dilution Buffer | No specific data. |
| Ingestion | : Spike B Mix | No specific data. |
| | Spike A Mix | No specific data. |
| | Dilution Buffer | No specific data. |

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

| | | |
|-----------------------------------|-----------------|---|
| Notes to physician | : Spike B Mix | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | Spike A Mix | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| | Dilution Buffer | Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. |
| Specific treatments | : Spike B Mix | No specific treatment. |
| | Spike A Mix | No specific treatment. |
| | Dilution Buffer | No specific treatment. |
| 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. |

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

| | | |
|---------------------------------------|-----------------|---|
| Suitable extinguishing media | : Spike B Mix | Use an extinguishing agent suitable for the surrounding fire. |
| | Spike A Mix | Use an extinguishing agent suitable for the surrounding fire. |
| | Dilution Buffer | Use an extinguishing agent suitable for the surrounding fire. |
| Unsuitable extinguishing media | : Spike B Mix | None known. |
| | Spike A Mix | None known. |
| | Dilution Buffer | None known. |

5.2 Special hazards arising from the substance or mixture

| | | |
|---|-----------------|---|
| Specific hazards arising from the chemical | : Spike B Mix | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | Spike A Mix | In a fire or if heated, a pressure increase will occur and the container may burst. |
| | Dilution Buffer | In a fire or if heated, a pressure increase will occur and the container may burst. |

Section 5. Fire-fighting measures

Hazardous thermal decomposition products : Spike B Mix No specific data.
 Spike A Mix No specific data.
 Dilution Buffer No specific data.

5.3 Advice for firefighters

Special protective actions for fire-fighters : 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 fire-fighters : 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.
 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.
 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.

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 spilled 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 spilled 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 spilled material. Put on appropriate personal protective equipment.

Section 6. Accidental release measures

| | | |
|---|--|--|
| <p>For emergency responders :</p> | <p> Spike B Mix</p> | <p>If specialized 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".</p> <p>If specialized 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".</p> <p>If specialized 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".</p> |
| | <p>Spike A Mix</p> | |
| | <p>Dilution Buffer</p> | |
| <p>6.2 Environmental precautions</p> | <p> Spike B Mix</p> | <p>Avoid dispersal of spilled 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).</p> <p>Avoid dispersal of spilled 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).</p> <p>Avoid dispersal of spilled 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).</p> |
| | <p>Spike A Mix</p> | |
| | <p>Dilution Buffer</p> | |
| <p>6.3 Methods and materials for containment and cleaning up</p> | <p>Methods for cleaning up :</p> | |
| | <p> Spike B Mix</p> | <p>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.</p> <p>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.</p> <p>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.</p> |
| | <p>Spike A Mix</p> | |
| | <p>Dilution Buffer</p> | |

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. |
| 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| | 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 unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| | 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 |

Section 7. Handling and storage

opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled 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 | : Spike B Mix Spike A Mix Dilution Buffer | Industrial applications, Professional applications. Industrial applications, Professional applications. Industrial applications, Professional applications. |
| Industrial sector specific solutions | : Spike B Mix Spike A Mix Dilution Buffer | Not applicable. Not applicable. Not applicable. |

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

| Ingredient name | Exposure limits |
|-----------------|-----------------|
| None. | |

8.2 Exposure controls

| | |
|---|--|
| 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

| | |
|----------------------------|---|
| Hygiene measures | : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. |
| Eye/face protection | : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. |

Skin protection

| | |
|------------------------------|---|
| Hand protection | : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| Body protection | : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |
| Other skin protection | : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. |

Section 8. Exposure controls/personal protection

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

| | | |
|---|---|---|
| Physical state | : Spike B Mix Spike A Mix Dilution Buffer | Liquid. Liquid. Liquid. |
| Color | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
| Odor | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
| Odor threshold | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
| pH | : Spike B Mix Spike A Mix Dilution Buffer | 6.4 6.4 7 |
| Melting point | : Spike B Mix Spike A Mix Dilution Buffer | 1°C (33.8°F) 0°C (32°F) 0°C (32°F) |
| Boiling point | : Spike B Mix Spike A Mix Dilution Buffer | 100°C (212°F) 100°C (212°F) 100°C (212°F) |
| Flash point | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
| Evaporation rate | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
| Flammability (solid, gas) | : Spike B Mix Spike A Mix Dilution Buffer | Not applicable. Not applicable. Not applicable. |
| Lower and upper explosive (flammable) limits | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
| Vapor pressure | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
| Vapor density | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
| Relative density | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |

Section 9. Physical and chemical properties

| | | |
|---|-----------------|--|
| Solubility | : Spike B Mix | Easily soluble in the following materials: cold water and hot water. |
| | Spike A Mix | Easily soluble in the following materials: cold water and hot water. |
| | Dilution Buffer | Easily soluble in the following materials: cold water and hot water. |
| Partition coefficient: n-octanol/water | : Spike B Mix | Not available. |
| | Spike A Mix | Not available. |
| | Dilution Buffer | Not available. |
| Auto-ignition temperature | : Spike B Mix | Not available. |
| | Spike A Mix | Not available. |
| | Dilution Buffer | Not available. |
| Decomposition temperature | : Spike B Mix | Not available. |
| | Spike A Mix | Not available. |
| | Dilution Buffer | Not available. |
| Viscosity | : Spike B Mix | Not available. |
| | Spike A Mix | Not available. |
| | Dilution Buffer | Not available. |

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. |
| 10.3 Possibility of hazardous reactions | : Spike B Mix | Under normal conditions of storage and use, hazardous reactions will not occur. |
| | Spike A Mix | Under normal conditions of storage and use, hazardous reactions will not occur. |
| | Dilution Buffer | Under normal conditions of storage and use, hazardous reactions will not occur. |
| 10.4 Conditions to avoid | : Spike B Mix | No specific data. |
| | Spike A Mix | No specific data. |
| | Dilution Buffer | No specific data. |
| 10.5 Incompatible materials | : Spike B Mix | May react or be incompatible with oxidizing materials. |
| | Spike A Mix | May react or be incompatible with oxidizing materials. |
| | Dilution Buffer | May react or be incompatible with oxidizing materials. |

Section 10. Stability and reactivity

| | | |
|--|-----------------|--|
| 10.6 Hazardous decomposition products | : Spike B Mix | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| | Spike A Mix | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| | Dilution Buffer | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

Section 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not available.

Irritation/Corrosion

Not available.

Sensitization

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.

| | | |
|---|---|--|
| Information on the likely routes of exposure | : Spike B Mix Spike A Mix Dilution Buffer | Not available. Not available. Not available. |
|---|---|--|

Potential acute health effects

| | | |
|---------------------|---|---|
| Eye contact | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Inhalation | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Skin contact | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |

Section 11. Toxicological information

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

Symptoms related to the physical, chemical and toxicological characteristics

| | | |
|---------------------|---|---|
| Eye contact | : Spike B Mix Spike A Mix Dilution Buffer | No specific data. No specific data. No specific data. |
| Inhalation | : Spike B Mix Spike A Mix Dilution Buffer | No specific data. No specific data. No specific data. |
| Skin contact | : Spike B Mix Spike A Mix Dilution Buffer | No specific data. No specific data. No specific data. |
| Ingestion | : Spike B Mix Spike A Mix Dilution Buffer | No specific data. No specific data. No specific data. |

Delayed and immediate effects and also 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

| | | |
|------------------------------|---|---|
| General | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Carcinogenicity | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Mutagenicity | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Teratogenicity | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Developmental effects | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |
| Fertility effects | : Spike B Mix Spike A Mix Dilution Buffer | No known significant effects or critical hazards. No known significant effects or critical hazards. No known significant effects or critical hazards. |

Numerical measures of toxicity

Acute toxicity estimates

Not available.

Section 12. Ecological information

12.1 Toxicity

Not available.

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods

Disposal methods : The generation of waste should be avoided or minimized 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

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

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

U.S. Federal regulations : TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 311: Edetic acid

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Spike B Mix Not applicable.
Spike A Mix Not applicable.
Dilution Buffer Not applicable.

Composition/information on ingredients

No products were found.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

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) : All components are listed or exempted. Japan inventory (ISHL) : All components are listed or exempted. |
| Malaysia | : Not determined. |
| New Zealand | : All components are listed or exempted. |
| Philippines | : All components are listed or exempted. |
| Republic of Korea | : All components are listed or exempted. |
| Taiwan | : All components are listed or exempted. |
| 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. Other information

History

| | |
|-------------------------------|---------------|
| Date of issue | : 11/21/2017 |
| Date of previous issue | : 09/24/2015. |
| Version | : 6 |

Indicates information that has changed from previously issued version.

Notice to reader

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