1. Identification of the material and supplier

Names

- **Product name**: MATRIX B: SINAPINIC ACID
- **Product part number**: 4318131
- **Kit name**: Peptide Mass Standards Kit for Calibration of AB SCIEX MALDI-TOF Instruments
- **Kit part number**: P2-3143-00
- **Material uses**: For research use only. Not for use in diagnostic procedures.
- **ADG**: -

Supplier

- **Manufacturer**: AB SCIEX Pte. Ltd.
  110 Marsh Drive
  Foster City, CA USA 94404
  1-877-740-2129
- **Emergency telephone number**: Chemtrec: 1-800-424-9300 (24H)
  1-877-740-2129 (8:30A PT - 5:00P PT)
- **Product type**: Powder.

2. Hazards identification

Classification: Xi; R36/37/38

Risk phrases: R36/37/38- Irritating to eyes, respiratory system and skin.

Statement of hazardous/dangerous nature: HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

3. Composition/information on ingredients

Mixture: No.

Chemical name: 4-hydroxy-3,5-dimethoxycinnamic acid

Synonyms: 2-Propenoic acid, 3-(4-hydroxy-3,5-dimethoxyphenyl)-

CAS number: 530-59-6

Molecular formula: C11H12O5

<table>
<thead>
<tr>
<th>Ingredient name</th>
<th>CAS number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-hydroxy-3,5-dimethoxycinnamic acid</td>
<td>530-59-6</td>
<td>&gt; 60</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.

4. First-aid measures

First-aid measures

- **Inhalation**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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.
4. First-aid measures

**Ingestion**
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 if adverse health effects persist or are severe. 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.

**Skin contact**
Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Eye contact**
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.

**Protection of first-aiders**
No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

**Advice to doctor**
No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

**Extinguishing media**

- **Suitable**: Use dry chemical powder.
- **Not suitable**: Do not use water jet.

**Special exposure hazards**
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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fine dust clouds may form explosive mixtures with air.

**Hazardous thermal decomposition products**
Decomposition products may include the following materials:
- Carbon dioxide
- Carbon monoxide

**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.

6. Accidental release measures

**Personal precautions**
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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**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).

**Methods for cleaning up**

- **Small spill**: Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

- **Large spill**: Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.
7. Handling and storage

Handling: Put on appropriate personal protective equipment (see Section 8). 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. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage: Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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.

Combustible liquid: Not applicable.

8. Exposure controls/personal protection

Occupational exposure limits: No exposure standard allocated.

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.

Exposure controls

Engineering measures: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

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.

Eyes: 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 or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles.

Hands: 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.

Respiratory: 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.

Skin: 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.
### 8. Exposure controls/personal protection

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.

### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid. [Powder.]</td>
</tr>
<tr>
<td>Colour</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odour</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>202°C (395.6°F)</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammable limits</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous polymerisation will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Prevent dust accumulation.</td>
</tr>
<tr>
<td>Materials to avoid</td>
<td>Reactive or incompatible with the following materials: oxidizing materials and alkalis.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Under normal conditions of storage and use, hazardous decomposition products should not be produced.</td>
</tr>
</tbody>
</table>

### 11. Toxicological information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential acute health effects</td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td>Irritating to respiratory system.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Irritating to mouth, throat and stomach.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Irritating to skin.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Irritating to eyes.</td>
</tr>
<tr>
<td>Acute toxicity</td>
<td></td>
</tr>
<tr>
<td>Conclusion/Summary</td>
<td>Not available.</td>
</tr>
<tr>
<td>Potential chronic health effects</td>
<td></td>
</tr>
<tr>
<td>Chronic toxicity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conclusion/Summary</td>
<td>Not available.</td>
</tr>
<tr>
<td>Irritation/Corrosion</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conclusion/Summary</td>
<td>Not available.</td>
</tr>
<tr>
<td>Sensitiser</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conclusion/Summary</td>
<td>Not available.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conclusion/Summary</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
11. Toxicological information

**Mutagenicity**
- Conclusion/Summary: Not available.

**Teratogenicity**
- Conclusion/Summary: Not available.

**Reproductive toxicity**
- Conclusion/Summary: Not available.

**Carcinogenicity**
- Conclusion/Summary: No known significant effects or critical hazards.

**Mutagenicity**
- Conclusion/Summary: No known significant effects or critical hazards.

**Teratogenicity**
- Conclusion/Summary: No known significant effects or critical hazards.

**Developmental effects**
- Conclusion/Summary: No known significant effects or critical hazards.

**Fertility effects**
- Conclusion/Summary: No known significant effects or critical hazards.

**Over-exposure signs/symptoms**
- **Inhalation**: Adverse symptoms may include the following: respiratory tract irritation, coughing.
- **Ingestion**: No specific data.
- **Skin**: Adverse symptoms may include the following: irritation, redness.
- **Eyes**: Adverse symptoms may include the following: irritation, watering, redness.

**Target organs**: May cause damage to the following organs: upper respiratory tract, skin, eyes.

12. Ecological information

**Ecotoxicity**
- Conclusion/Summary: No known significant effects or critical hazards.

**Aquatic ecotoxicity**
- Conclusion/Summary: Not available.

**Other ecological information**
- Conclusion/Summary: Not available.

**Persistence/degradability**
- Conclusion/Summary: Not available.

**Other adverse effects**
- Conclusion/Summary: No known significant effects or critical hazards.

13. Disposal considerations

**Methods of disposal**
- The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

14. Transport information

**International transport regulations**

**ADG/ADR/IMDG/IATA**: Not regulated.
15. Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons
Not regulated.

Control of Scheduled Carcinogenic Substances
No listed substance

Australia inventory (AICS) : Not determined.
EU Classification : Xi; R36/37/38

16. Other information

Person who prepared the MSDS : Atrion Regulatory Services, Inc.
Date of previous issue : No previous validation
Date of issue/ Date of revision : 11/24/2010.
Version : 1

Indicates information that has changed from previously issued version.

Disclaimer
To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.