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

1.1 Product identifiers

Product name: ProteoMass™ Peptide and Protein MALDI-MS Calibration Kit

Product Number: MSCAL1

Brand: Sigma

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

Identified uses: Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet

Company: Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone: +1 314 771-5765
Fax: +1 800 325-5052

1.4 Emergency telephone

Emergency Phone #: 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

This is a summary SDS for a kit. For the full SDS for each of the components listed in section 16 please visit our website.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

- Flammable liquids (Category 2), H225
- Acute toxicity, Oral (Category 4), H302
- Acute toxicity, Inhalation (Category 4), H332
- Acute toxicity, Dermal (Category 4), H312
- Skin irritation (Category 2), H315
- Eye irritation (Category 2A), H319
- Skin sensitization (Category 1), H317
- Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements
SECTION 2: Safety, Health and the Environment

Pictogram

Signal Word  Danger

Hazard statement(s)
H225  Highly flammable liquid and vapor.
H302 + H312 + H332  Harmful if swallowed, in contact with skin or if inhaled.
H315  Causes skin irritation.
H317  May cause an allergic skin reaction.
H319  Causes serious eye irritation.
H335  May cause respiratory irritation.

Precautionary statement(s)
P210  Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P233  Keep container tightly closed.
P240  Ground/bond container and receiving equipment.
P241  Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242  Use only non-sparking tools.
P243  Take precautionary measures against static discharge.
P261  Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264  Wash skin thoroughly after handling.
P270  Do not eat, drink or smoke when using this product.
P271  Use only outdoors or in a well-ventilated area.
P272  Contaminated work clothing must not be allowed out of the workplace.
P280  Wear protective gloves/ eye protection/ face protection.
P301 + P312 + P330  IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P303 + P361 + P353  IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312  IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333 + P313  If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313  If eye irritation persists: Get medical advice/ attention.
P362  Take off contaminated clothing and wash before reuse.
P370 + P378  In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P233  Store in a well-ventilated place. Keep container tightly closed.
P403 + P235  Store in a well-ventilated place. Keep cool.
P405  Store locked up.
P501  Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

Refer to component SDS
SECTION 4: First aid measures
Refer to component SDS

SECTION 5: Firefighting measures
Refer to component SDS

SECTION 6: Accidental release measures
Refer to component SDS

SECTION 7: Handling and storage
7.1 Precautions for safe handling
Advice on safe handling
Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Hygiene measures
Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Storage conditions
Keep container tightly closed in a dry and well-ventilated place.
Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Storage class
Storage class (TRGS 510): 3: Flammable liquids

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection
Refer to component SDS

SECTION 9: Physical and chemical properties
Refer to component SDS
SECTION 10: Stability and reactivity
Refer to component SDS

SECTION 11: Toxicological information
Refer to component SDS

SECTION 12: Ecological information
Refer to component SDS

SECTION 13: Disposal considerations
Refer to component SDS

SECTION 14: Transport information

**DOT (US)**
UN number: 3316   Class: 9
Proper shipping name: Chemical kit
Reportable Quantity (RQ): 5000 lbs
Poison Inhalation Hazard: No

**IMDG**
UN number: 3316   Class: 9
Proper shipping name: CHEMICAL KIT
Packing group: II  EMS-No: F-A, S-P

**IATA**
UN number: 3316   Class: 9
Proper shipping name: Chemical kit
Packing group: II

SECTION 15: Regulatory information
Refer to component SDS

SECTION 16: Other information

**Kit Components:**
ProteoMass™   Sigma   C8857
Cytochrome c MALDI-MS Standard
ProteoMass™ P14R   Sigma   P2192
MALDI-MS Standard
ProteoMass™ Bradykinin Fragment 1-7 MALDI-MS Standard
Sigma   B4181

Sigma - MSCAL1
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<thead>
<tr>
<th>Substance</th>
<th>Supplier</th>
<th>Code</th>
<th>Pictograms</th>
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<tr>
<td>Sinapic acid</td>
<td>Sigma-Aldrich</td>
<td>49508</td>
<td>Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335</td>
</tr>
<tr>
<td>ProteoMass™ ACTH Fragment 18-39 MALDI-MS Standard</td>
<td>Sigma</td>
<td>A8346</td>
<td></td>
</tr>
<tr>
<td>ProteoMass™ Angiotensin II MALDI-MS Standard</td>
<td>Sigma</td>
<td>A8846</td>
<td></td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>SIGALD</td>
<td>439134</td>
<td>Flam. Liq. 2; Acute Tox. 4; Eye Irrit. 2A; H225, H302 + H312 + H332, H319</td>
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<tr>
<td>ProteoMass™ Apomyoglobin MALDI-MS Standard</td>
<td>Sigma</td>
<td>A8971</td>
<td></td>
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<tr>
<td>ProteoMass™ Aldolase MALDI-MS Standard</td>
<td>Sigma</td>
<td>A9096</td>
<td></td>
</tr>
<tr>
<td>Bovine Serum Albumin</td>
<td>Sigma</td>
<td>A2153</td>
<td>Skin Irrit. 2; Eye Irrit. 2A; H315, H319</td>
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<tr>
<td>Trifluoroacetic acid solution</td>
<td>Sigma</td>
<td>T3693</td>
<td></td>
</tr>
<tr>
<td>Trifluoroacetic acid solution</td>
<td>Sigma</td>
<td>T3443</td>
<td></td>
</tr>
<tr>
<td>Bovine insulin</td>
<td>Sigma</td>
<td>B2286</td>
<td>Skin Irrit. 2; Eye Irrit. 2A; Skin Sens. 1B; STOT SE 3; H315, H317, H319, H335</td>
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<tr>
<td>α-Cyano-4-hydroxycinnamic acid</td>
<td>Aldrich</td>
<td>145505</td>
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<td>ProteoMass™ Insulin chain B oxidized MALDI-MS Standard</td>
<td>Sigma</td>
<td>I6154</td>
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**Further information**

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the
information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.

Version: 8.4  Revision Date: 10/13/2022  Print Date: 07/22/2023
# Kit Components:

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>Pictogram</th>
<th>Signal Word</th>
<th>Hazard Statements</th>
<th>Precautionary Statements</th>
<th>Supplemental Information</th>
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<tbody>
<tr>
<td>Sigma - C8857</td>
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<td><strong>ProteoMass™ Cytochrome c MALDI-MS Standard</strong></td>
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<td>Sigma - Aldrich - 49508</td>
<td>!</td>
<td>Warning</td>
<td>Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.</td>
<td>Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF ON SKIN: Wash with plenty of soap and water. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/ container to an approved waste disposal plant. Wash skin thoroughly after handling. IF INHALED: Remove person</td>
<td></td>
</tr>
</tbody>
</table>
to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Store locked up. Use only outdoors or in a well-ventilated area. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Wear protective gloves/ eye protection/ face protection. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.

<table>
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<tr>
<th>ProteoMass™ ACTH Fragment 18-39 MALDI-MS Standard</th>
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<td>Product identifier</td>
<td>Pictogram</td>
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<tr>
<td>SIGALD - 439134</td>
<td>![Flammable and Reactor Pictograms]</td>
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</table>
lenses, if present and easy to do. Continue rinsing. Use only non-sparking tools. If eye irritation persists: Get medical advice/attention. Take precautionary measures against static discharge. Wash contaminated clothing before reuse. Avoid breathing mist or vapors. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish. Wash skin thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/eye protection/face protection.

**ProteoMass™ Apomyoglobin MALDI-MS Standard**

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<th>Product identifier</th>
<th>Pictogram</th>
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<th>Hazard Statements</th>
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<th>Supplemental information</th>
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**ProteoMass™ Aldolase MALDI-MS Standard**

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### Bovine Serum Albumin

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### Trifluoroacetic acid solution

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<tr>
<td>Sigma - T3693</td>
<td>![Warning]</td>
<td>Warning</td>
<td>Causes skin irritation. Causes serious eye irritation.</td>
<td>Wash skin thoroughly after handling. IF ON SKIN: Wash with plenty of soap and water. Wear protective gloves/ eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse.</td>
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<table>
<thead>
<tr>
<th>Product identifier</th>
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### Bovine insulin

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### α-Cyano-4-hydroxycinnamic acid

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<tr>
<td>Aldrich - 145505</td>
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<td>Warning</td>
<td>Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation.</td>
<td>Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF ON SKIN: Wash with plenty of soap and water. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container to an approved waste disposal plant. Wash skin thoroughly after handling. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell. Store locked up. Use only outdoors or in a well-ventilated area. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</td>
<td></td>
</tr>
</tbody>
</table>
Contaminated work clothing must not be allowed out of the workplace. If skin irritation or rash occurs: Get medical advice/attention. Wear protective gloves/eye protection/face protection. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

<table>
<thead>
<tr>
<th>ProteoMass™ Insulin chain B oxidized MALDI-MS Standard</th>
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<td>Product identifier</td>
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<tr>
<td>---------------------</td>
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<tr>
<td>Sigma - I6154</td>
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