Safety Data Sheet

1. Identification of the Substance/Mixture and the Supplier

Supplier: The National Institute of Advanced Industrial Science and Technology (AIST)
Address: 1-3-1, Kasumigaseki, Chiyoda, Tokyo, Japan
Office in Charge: Reference Materials Office, Center for Quality Management of Metrology, National Metrology Institute of Japan
Person in Charge: Person in charge of certified reference materials
Telephone No.: +81-29-861-4059
Fax No.: +81-29-861-4009
Emergency Contact: Same as above

Prepared on: June 5, 2012
Revised on: March 31, 2017
Arrangement number: 7512001

Identity of Substance/Mixture: Certified reference material NMIJ CRM 7512-a
Restrictions on their use and recommended use: This certified reference material (CRM) is for use in controlling the precision of analysis or confirming the validity of analytical methods or instruments during analysis of trace elements in milk powder or similar matrices. Do not use this reference material for other purposes than testing/research.

2. Hazards Identification

GHS classification: Classification not possible
GHS labeling element: Classification not possible
Signal word: -
Hazard and toxicity information: -
Other toxicity information: In case of inhalation of powder or dust in large quantity, accumulation in respiratory organs may cause health hazards.
Cautionary statement: [Safety measures]
- Do not use for purposes other than testing and research.
- Do not eat, drink, or smoke when using this product.
- Wear protective gloves and glasses.
- Do not inhale powder.
- Do not let the product come in contact with eyes, skin, or clothing.
- Avoid discharge to environment.
- After handling the product, wash hands well.
[Emergency measures]
- Ingestion: Rinse mouth well with water.
- Eye contact: Wash eyes with plenty of clean water. Seek medical
attention if necessary.
Inhalation: Seek fresh air and keep warm and steady.
Skin contact: Wash with plenty of water and soap. Seek medical attention if irritation develops.
Collect spillage and treat appropriately.

[Storage]
Keep out of sunlight in a clean place at room temperature.

[Disposal]
Dispose the contents and container in accordance with national and local laws and regulations.
Classification is impossible or not applicable for hazards not mentioned above.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substance or mixture</th>
<th>Chemical name</th>
<th>Synonym</th>
<th>Content</th>
<th>Chemical formula</th>
<th>Molecular weight</th>
<th>Reference Number in Gazetted List in Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single substance</td>
<td>Milk powder</td>
<td></td>
<td>99 % or over</td>
<td></td>
<td></td>
<td>Act on the Evaluation of Chemical Substances and Regulation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>of Their Manufacture, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Industrial Safety and Health Act</td>
</tr>
</tbody>
</table>

Except this CRM contains elements shown below:
Ca, Fe, K, Mg, Na, P, Ba, Cu, Mn, Mo, Rb, Sr, Zn.

4. First-aid Measures

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>Skin contact</th>
<th>Inhalation</th>
<th>Ingestion</th>
</tr>
</thead>
<tbody>
<tr>
<td>: Wash eyes with plenty of clean water. Seek medical attention.</td>
<td>: Wash with plenty of clean water. Take off contaminated clothing, shoes, etc., and seek medical attention.</td>
<td>: Seek fresh air, keep warm, and rest. Seek medical attention.</td>
<td>: Rinse the mouth well with water. Contact a physician.</td>
</tr>
</tbody>
</table>

Estimated acute and late symptom | Protection of first-aiders | : Use personal protective equipment. |

5. Fire-fighting Measures

<table>
<thead>
<tr>
<th>Extinguishing media</th>
<th>Specific hazards with regard to fire-fighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>: Use extinguishing media for peripheral fire.</td>
<td>: None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific methods of fire-fighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>: Eliminate the origin of fire and put the fire out with extinguishing media. If possible, move containers to a safe place. If not, cool the peripheral areas with water spray.</td>
</tr>
</tbody>
</table>
Protection for firefighters: Work from the windward side to prevent the inhalation of toxic gas. Use fire-prevention clothing, fireproof clothing, fire-protection clothing, respirator, circulating oxygen breathing apparatus, rubber gloves, and rubber boots.

6. Accidental Release Measures

Personal precautions: Promptly remove all potential ignition sources from peripheral areas. In case of ignition, prepare the equipment for firefighting.

Protective equipment and emergency measures: When accidental release takes place indoors, thoroughly clear the air until the emergency measures are complete. Before the operation, wear appropriate protective equipment to protect skin from droplets and to prevent inhalation of dust and gas.

Environmental precautions:

Recovery and neutralization:

Prevention of second accident: Collect powder or dust in an empty container as much as possible, preventing its scattering at the same time.

7. Handling and Storage

Handling:
- Avoid eye contact.
- Avoid inhalation of dust.
- Do not use it for any purpose other than research purposes.

Storage:
- Keep out of sunlight at a clean place at room temperature.

Safe packaging materials: Glasses

8. Exposure Controls/Personal Protection

Standard control concentration
- N/A

Threshold limit values (material name):
- ACGIH TLV-TWA: N/A
- Value recommended by Japanese Society of Occupational Health: N/A
- OSHA PEL TWA: N/A

Engineering controls:
- When dust is generated, seal the source, and provide local exhaust ventilation.

Protective equipment:
- Dust mask, protective gloves, and safety glasses.

9. Physical and Chemical Properties

- Appearance, etc.: Powder
10. Stability and Reactivity
◇ Stability
  • Stable under normal conditions
◇ Reactivity
  • No data
◇ Conditions to avoid
  • Sunlight, moisture
◇ Hazardous decomposition products
  • No data

11. Toxicological Information
Serious eye damage/eye: Possible irritation
Respiratory sensitization: In case of inhalation of powder or dust in large quantity, accumulation in respiration organs may cause health hazards.

12. Ecological Information
Degradability/Concentration
  • No data
Bioaccumulation
  • No data
Ecotoxicity
  • No data

13. Disposal Considerations
• Dispose in accordance with related laws, regulations, and local regulations.
• To dispose of an empty container, completely remove the contents.
14. Transport Information

<table>
<thead>
<tr>
<th>UN Dangerous Goods Number</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN Classification</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Product name</td>
<td>-</td>
</tr>
<tr>
<td>Packing group</td>
<td>-</td>
</tr>
<tr>
<td>ICAO/IATA</td>
<td>-</td>
</tr>
<tr>
<td>Marine pollutant</td>
<td>-</td>
</tr>
<tr>
<td>Matters to be attended to</td>
<td>Avoid direct sunlight, prevent agitation to the container, and transport carefully.</td>
</tr>
</tbody>
</table>

15. Regulatory Information

- No applicable laws and regulations

© This SDS is originally prepared for the use of the material in Japan, thus the stated laws and regulations are stipulated and carried out in Japan. The use of the material in other countries should be referred to and by application of the relevant laws and regulations of the country in which the material will be used.

16. Other Information

Others

The information in this document is not intended to be exhaustive and is based on currently available information and data. The measures given in this document are applicable only to normal handling conditions. When handling this reference material under special conditions etc., it is recommended to take safety measures appropriate to each specific application and context of use. This document is intended to provide information and not intended to guarantee anything in handling this reference material.