1. Identification of the Substance/Mixture and the Supplier

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

Prepared on : February 8, 2012
Revised on : March 31, 2017
ID Number : 7511001

Identity of Substance/Mixture : Certified reference material: NMIJ CRM 7511-a
Recommended Use of the Chemical and Restriction on Use : This reference material can be used for quality control of quantitative analysis of trace elements in beans and samples similar to beans as well as for validation etc. of analysis methods or analysis equipment. Do not use this reference material for other purposes than testing/research.

2. Hazards Identification

GHS Classification: Cannot be classified
GHS Label Element: Cannot be classified
Signal Word : -
Hazards Statement: -
Other Hazards : Cause disorders due to accumulation in respiratory organs when particles of this reference material are inhaled in large amounts
Precautionary Statement : [Safety Precaution]

Inhalation of particles of this reference material in large amounts: Seek medical examination/treatment at respiratory department.
Eye contact: Irrigate eyes with a large amount of water and seek medical examination/treatment as necessary.
Storage: Store this reference material in light-shielded clean environment at room temperature.
Disposal: Entrust disposal of this reference material to a professional waste disposal company licensed by prefectural governors.

The other hazards than the above do not result in classification or are not covered by the GHS.
3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substance or mixture</th>
<th>Single Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Identity</td>
<td>Soybean</td>
</tr>
<tr>
<td>Synonym</td>
<td>-</td>
</tr>
<tr>
<td>Chemical formula</td>
<td>-</td>
</tr>
<tr>
<td>Molecular weight</td>
<td>-</td>
</tr>
<tr>
<td>CAS number</td>
<td>-</td>
</tr>
<tr>
<td>Content</td>
<td>100 %</td>
</tr>
</tbody>
</table>

Reference Number in Gazetted List in Japan:
- Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
- Industrial Safety and Health Act

This CRM contains minor elements shown below:
Ca, K, Mg, P, Cd, Cu, Fe, Zn.

4. First-aid Measures

Eye Contact: Irrigate eyes thoroughly with clean water. Seek medical examination/treatment.

Skin Contact: Flush exposed skin area thoroughly with clean water. Take off contaminated clothing and shoes. Seek medical examination/treatment.

Inhalation: Move the person to fresh air and keep him/her at rest and warm. Seek medical examination/treatment.

Ingestion: Flush mouth thoroughly with water. Seek medical attention.

Anticipated Acute and Delayed Symptoms: -

The Most Important Symptoms and Effects: -

Protection of First Responders: Use personal protective equipment.

5. Fire-fighting Measures

Extinguishing Media: Fire-extinguishing agent suitable for the surrounding fire

Fire-Specific Hazards: None

Specific Fire-Fighting Method: Eliminate combustion sources at the origin of a fire and put out fire by using extinguishing media. Move movable containers immediately to a safe place. In the case of immovable containers, cool their surroundings with sprayed water.

Protection of Fire-Fighters: Carry out fire-fighting from the windward in order to avoid inhalation of hazardous gas. Use personal protective equipment such as fireproof clothing, heat-resistant rescue
suit, protective clothing, air respirator, closed-circuit self-contained breathing apparatus (SCBA), rubber gloves and rubber boots.

6. Accidental Release Measures

Personal Precaution: Immediately remove potential ignition sources from surrounding areas. Make fire-extinguishing tools available to prepare for fire ignition.

Personal Protective Equipment and Emergency Procedures:
- Ventilate the affected area thoroughly until the clean-up operation is completed when accidental release takes place indoor. Use appropriate personal protective equipment during the operation to avoid skin contact of splash etc. and inhalation of dust and gas.

Environmental Precautions:
- Recovery and Neutralization:
- Secondary Disaster Prevention Measures: Collect the released reference material in empty containers as much as possible by using a method to prevent scatter of its particles.

7. Handling and Storage

Handling:
- Avoid contact with eyes.
- Avoid inhalation of particles of this reference material.
- Do not use this reference material for other purposes than research.

Storage:
- Store this reference material in light-shielded clean environment at room temperature.
- Safe Container/Packaging Material: Glass

8. Exposure Controls/Personal Protection

Cut-Off Value/Concentration Limit:
- Not specified

Permissible Concentration:
- ACGIH TLV-TWA (2000): Not specified
- Value recommended by Japan Society for Occupational Health (1998): Not specified
- OSHA PEL TWA: Not specified

Engineering Controls:
- When particles of this reference material are generated, hermetically seal the particle generation source and install local exhaust ventilation equipment.

Personal Protective Equipment (PPE):
- dust-protective mask, protective gloves and eye protector

9. Physical and Chemical Properties

- Appearance, etc.: Powder
- Color: White-brown
- Odor: No data
- pH: No data
- Melting point: No data
- Boiling point: No data
- Flashing point: No data
- Explosive range: No data
- Vapor pressure: No data
- Relative vapor density (Air=1): No data
- Specific gravity or bulk specific gravity: No data
- Solubility: Some ingredients may be solved in water.
- n-Octanol/water partition coefficient (Log Po/w): No data
- Auto-ignition temperature: No data

### 10. Stability and Reactivity

◇ Stability
  - Stable in normal conditions

◇ Reactivity
  - No data available

◇ Conditions to avoid
  - Sunlight and moisture

◇ Hazardous Decomposition Products
  - No data available

### 11. Toxicological Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious Eye Damage/ Eye Irritation</td>
<td>May irritate eyes</td>
</tr>
<tr>
<td>Respiratory Sensitization</td>
<td>Cause disorders due to accumulation in respiratory organs when particles of this reference material are inhaled in large amounts</td>
</tr>
</tbody>
</table>

### 12. Ecological Information

- Persistence and Degradability
  - No data available
- Bioaccumulative Potential
  - No data available
- Ecotoxicity
  - No data available

### 13. Disposal Considerations

- Dispose this reference material in accordance with relevant legislation and local government ordinances.
- Dispose empty containers after completely remove their contents.

### 14. Transport Information
UN Number : Not applicable
UN Classification : Not applicable
Shipping Name : —
Packing Group : —
ICAO/IATA : —
Marine Pollutant : —
Precautions : Transport this reference material carefully while keeping it away from direct sunlight and paying due attention to avoid dropping and turning over etc.

15. Regulatory Information

・No applicable laws and regulations

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.