Safety Data Sheet

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, Tokyo, Japan
Office in Charge	:	Reference Materials Office, Center for Quality Management of Metrology, National Metrology Institute of Japan (NMIJ)
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 : January 20, 2016
		Revised on : August 31, 2022
		ID Number : 7533001
Identity of Substance/Mixture	:	Certified reference material: NMIJ CRM 7533-a Arsenic Compounds and Trace Elements in Brown Rice Flour
Recommended Use of the Chemical and Restriction on Use	:	This reference material is intended for use in controlling the precision of analysis, or confirming the validity of analytical methods or instruments, during the analysis of arsenic compounds and trace elements in rice and other grains. Do not use this reference material for other purposes than testing/research. This CRM is a reference material (specified in the Japanese Industrial Standard (JIS) Q 0030).

2. Hazards Identification

GHS Classification	:	No classification
GHS Label Element	:	-
Signal Word	:	-
Hazards Statement	:	-
Other Hazards Statement	:	In case one inhales a large quantity of powder, it can cause problems due to accumulation in the respiratory system.
Precautionary Statement	:	[Precaution] Low risk in normal handling. [First-aid Action] In case of inhalation of plenty amount of dust, get medical advice/attention. If in eyes: Rinse with plenty amount of water for several minutes. Get medical advice/attention. [Storage] This CRM should be kept in a clean place at 5 °C to 30 °C and shielded from light. [Disposal] Dispose of this reference material in accordance with applicable

legislation and local government ordinance.
Entrust disposal of this reference material to a professional waste disposal company licensed by prefectural governor.

The other hazards than the above do not result in classification or are not classifiable.

3. Composition/Information on Ingredients

Substance/Mixture : Single substance
Chemical name : Brown Rice Flour
Synonym : -
Chemical formula : -
Molecular weight : -
CAS number : -
Content :
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 material contains components shown below;

Compound	Mass fraction (mg/kg as As)
Inorganic arsenic compounds (arsenite + arsenate)	0.530
Dimethylarsinic acid	0.092

Element	Mass fraction (mg/kg)
Mg	1375
Ca	104.2
Mn	23.7
Fe	13.6
Cu	4.29
Zn	29.2
As	0.63
Cd	0.273

4. First-aid Measures

If in eyes : Rinse away thoroughly with clean water. Get medical advice/attention.
If on skin : Rinse away thoroughly with clean water. Take off/Remove contaminated clothing, shoes, etc. Get medical advice/attention.
If inhaled : Remove victim to fresh air and keep at rest and warm. Get medical advice/attention.
If swallowed : Rinse mouth thoroughly with water.

Get medical advice/attention when feeling unwell.

Expected Acute and Delayed Symptom	:	–
Most Critical Characteristic and Symptom	:	–
Protection of First-Aid Responder	:	Use personal protective equipment.

5.Fire-fighting Measures

Extinguishing Media	:	Use a fire extinguishing agent suitable for surrounding fire.
Fire-Specific Hazards	:	Nothing special
Specific Fire-Fighting Method	:	Eliminate ignition sources at the origin of a fire and put out fire by using extinguishing media. Remove movable containers promptly 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 breathing hazardous gas. Use personal protective equipment such as fireproof clothing, heat-resistant clothing, protective clothing, compressed air open-circuit self-contained breathing apparatus, compressed oxygen closed-circuit self-contained breathing apparatus, rubber gloves and rubber boots.

6. Accidental Release Measures

Personal Precaution Personal Protective	:	Use appropriate personal protective equipment to avoid contact with skin, eyes and clothing.
Equipment and Emergency Procedures	:	Ventilate the affected areas thoroughly, if it is in an indoor environment, until the clean-up operation is completed. Use appropriate personal protective equipment during the operation to avoid skin contact of splash etc. and inhalation of dust and gas.
Environmental Precautions	:	Take precautions to prevent spillage from draining into rivers etc. to adversely impact the environment. Make it sure to appropriately treat contaminated wastewater in order to prevent untreated wastewater from being released into the surrounding environment.
Recovery and Neutralization	:	Collect spillage in empty containers. Rinse away the remains with plenty of water.
Prevention of Secondary Disaster	:	Mark the restricted area with rope etc. to keep out unauthorized people. Carry out the clean-up operation from the windward and make people on the leeward side evacuate.

7. Handling and Storage

Handling

Engineering Precautions	:	Avoid eye contact. Avoid inhalation of dust.

Do not use it for any purpose other than research purposes.

Local and General Ventilation : When vapor or mist is generated, seal the source, and provide local exhaust ventilation or central ventilation.

Precautions for Safe Handling : Avoid rough handling such as turning over, dropping, giving a shock to or dragging containers.
Prevent spill, overflow and scattering, and avoid vapor generation.
Keep container tightly closed after using this reference material.
Wash hands, face etc. thoroughly and gargle after handling this reference material.
Restrict drinking, eating and smoking to a designated area.
Do not bring gloves and other contaminated personal protective equipment into staff room.
Make a place handling this reference material a restricted area to keep out unauthorized people.
Use appropriate personal protective equipment to avoid inhalation and contact with eyes, skin and clothing.
Use local ventilation system in indoor handling areas.

Storage

Appropriate Storage Conditions : This CRM should be kept in a clean place at 5 °C to 30 °C and shielded from light.

Safe Container Packaging Material : Amber glass

8. Exposure Controls/Personal Protection

Threshold Limit Value

Not specified

Permissible Concentration

・ACGIH TLV-TWA : Not specified

・Value recommended by Japan Society for Occupational Health : Not specified

・OSHA PEL TWA : Not specified

Engineering Controls

Ventilation/Exhaust : Local ventilation system or General ventilation system

Safety Control/ Gas Detection : —

Storage Precaution : Tightly closed.

Personal Protective Equipment (PPE)

Respiratory System : Protective mask

Hands : Protective gloves

Eyes : Protective glass

Skin and Body : Protective clothing

Hygiene Controls

Handle this reference material in accordance with industrial health and safety standards.

9. Physical and Chemical Properties

・Appearance, etc.	:	Powder
・Color	:	Pale 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	:	Possibly soluble in water.
・*n*-Octanol/water partition coefficient (Log Po/w)	:	No data
・Auto-ignition temperature	:	No data

10. Stability and Reactivity

◇Chemical Stability

・Stable under normal storage conditions

◇Reactivity

・No data

◇Conditions to Avoid

・Sunlight, Heat

・humidity

◇Hazardous Decomposition Products

・No information available

11. Toxicological Information

Serious eye damage / irritancy	Eye irritation
Respiratory organ sensitization	In case one inhales a large quantity of powder, it can cause problems due to accumulation in the respiratory system.
Others	

The Toxicological Information is based on the information of raw materials, because there is not the available information as the mixture. This reference material is stable under the normal condition, and there is not the danger that a noxious additive ingredient elutes, however, when handling this reference material under special conditions such as the use

under the high temperature etc., it is recommended to take safety precautions appropriate to use.

12. Ecological Information

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

13. Disposal Considerations

Residual Waste	:	Incineration method Incinerate in an incinerator equipped with scrubber. Dispose in accordance with applicable regional, national and local laws and regulations. When the above-mentioned treatments are not possible, entrust disposal of this reference material to a professional waste disposal company licensed by local or national authority.
Contaminated Container and Package	:	Dispose of containers after thoroughly removing their contents.

14. Transport Information

UN Number	:	Not applicable
UN Classification	:	Not applicable
Shipping Name	:	-
Packing Group	:	-
ICAO/IATA	:	-
Marine Pollutant	:	Not applicable
Precautions	:	Transport this reference material carefully while keeping it away from direct sunlight and fire and preventing accidental release due to falling, overturning, 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.