

## 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  
 Person in Charge : Certified Reference Material Staff  
 Telephone No. : 029-861-4059 Fax No. : 029-861-4009  
 Emergency : Same as above  
 Contact

Prepared on : April 21, 2023

Revised on : —

Reference No. : 6210001

Identity of Substance/  
 Mixture : Certified reference material: NMIJ CRM 6210-a Amyloid  $\beta$

(Amyloid  $\beta$ )

Recommended Use of the Chemical and Restriction on Use : This CRM is intended to be used in the calibration and quality control of analytical equipment for quantitative analyses of amyloid  $\beta$ , characterization of analytical reagents, and validation of analytical methods and equipment used for amino acid analyses.  
 Do not use this CRM 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 : Not classifiable

GHS Label Element : -

Signal Word : -

Hazard Statement : -

Precautionary Statement : [Safety Precautions]

Use personal protective equipment.

[First-Aid Measures]

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

[Storage]

Protect from light. Store in a clean place at temperatures of about -80 °C.

[Disposal]

Abide by applicable legislation and ordinances set by local governments.

Entrust disposal of this CRM 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.

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### 3 . Composition/Information on Ingredients

Substance/Mixture	: Substance
Chemical Identity/Common Expression	: Amyloid $\beta$
CAS Number	: 107761-42-2
Content	: 99 % or more
Chemical Formula	: $C_{203}H_{311}N_{55}O_{60}S$
Molecular Weight	: 4 514.37
Reference Number in Gazetted List in Japan	: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.: -
Reference Number in Gazetted List in Japan	: Industrial Safety and Health Act: -

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### 4 . First-aid Measures

If Inhaled	: Remove victim to fresh air and keep at rest and warm. Get medical advice/attention.
If on Skin	: Rinse skin with clean water thoroughly. Remove/Take off contaminated clothing, shoes, etc. If skin irritation or rash occurs: Get medical advice/attention.
If in Eyes	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If Swallowed	: Rinse mouth with water thoroughly. Call a doctor/physician.
Precautions required to protect First-Aiders	: First-Aiders must use personal protective equipment.

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### 5 . Fire-fighting Measures

Suitable Extinguishing Media	: Use water spray, alcohol-resistant foam extinguishing agent, dry chemical extinguisher or carbon dioxide Extinguishing media appropriate for surrounding fire
Unsuitable Extinguishing Media	: No data available
Fire-Specific Hazards	: In case of fire: May emit irritative or toxic fume (or gas).
Specific Fire-Fighting	: Eliminate ignition sources at the origin of fire and put out fire by

Method	using extinguishing media. Move movable containers promptly to a safe place. If containers are immovable, cool their surroundings with water spray.
Special protection equipment and precaution for Fire-Fighters	: Fight fire from upwind to avoid breathing hazardous gas. Use personal protective equipment such as fire protection clothing, heat-resistant clothing, protective clothing, compressed air open-circuit self-contained breathing apparatus, circulating oxygen respirator, rubber gloves and rubber boots.

## 6 . Accidental Release Measures

Personal Precaution, Personal Protective Equipment and Emergency Procedures	: Use appropriate personal protective equipment to avoid contact with skin and eyes and contamination of personal clothes. Ventilate the affected areas thoroughly, if it is in an indoor environment, until the clean-up operation is completed. Wear 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 spillages from draining into rivers etc. to adversely affect the environment. Take precautions to prevent untreated wastewater from being released into the surrounding environment.
Method and Tool for Confinement and Clean-up	: Collect spillages in empty containers by getting them adsorbed to wiping cloth, rag, or soil and sand, etc. 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 upwind side and make people on the downwind side evacuate.

## 7 . Handling and Storage Precautions

Handling	
Engineering Precautions (Local and General Ventilation, etc.)	: Use only in a well-ventilated area. Install facilities to rinse eyes and to wash hands and body for emergency in the vicinity of a place handling this CRM. Avoid rough handling such as knocking over, dropping, dragging and giving a shock to container. Prevent this CRM from leaking, overflowing and splashing. Do not allow vapors to be emitted. Avoid breathing vapor (dust) diffused.
Precautions for Safe Handling	: Do not allow emission of aerosol and dust when handling.
Incompatible Materials	: No data available
Hygiene Controls	: Handle this CRM in accordance with industrial health and safety

code.

Storage

- Safe Storage Conditions : Protect from light. Store in a clean place at temperatures of about -80 °C.
- Safe Container : Glass
- Packaging Materials

※Refer to the Certificate for appropriate storage conditions and instructions for use as a reference material.

## 8 . Exposure Controls/Personal Protection

Threshold Limit Value

Not specified

Permissible Concentration

- ACGIH TLV-TWA : No data available
- Values recommended by Japan Society for Occupational Health : No data available
- OSHA PEL TWA : No data available

Engineering Controls

- Ventilation/Exhaust : Local ventilation system or general ventilation system
- Safety Control/Gas Detection : -
- Storage Precautions : -

Personal Protective Equipment

- Respiratory System : Protective mask
- Hands : Protective gloves
- Eyes and Face : Eye protector, Face protection
- Skin and Body : Protective clothing

## 9 . Physical and Chemical Properties

- Physical State : Solid
- Color : White
- Odor : No data available
- Melting Point/Freezing Point : No data available
- Boiling Point or Initial Boiling Point and Boiling Point Range : No data available
- Flammability : No data available
- Lower Explosion Limit and Upper Explosion Limit/Flammability Limit : No data available
- Flashing Point : No data available

- Auto-Ignition Temperature : No data available
- pH : No data available
- Kinetic Viscosity : No data available
- Solubility : No data available
- Partition Coefficient: *n*-octanol/  
Water : No data available
- Vapor Pressure : No data available
- Density and/or Relative Density : No data available
- Relative Gas Density : No data available
- Particle Characteristics : No data available

## 10. Stability and Reactivity

- Reactivity : No data available
- Chemical Stability : Stable under recommended storage conditions
- Possibility of : No data available
- Hazardous Reactions
- Conditions to Avoid : Sunlight, Heat
- Incompatible Materials : Strong acids, Strong bases
- Hazardous : Nitrogen oxides (NO<sub>x</sub>), Carbon oxides, Sulfur oxides
- Decomposition
- Products

## 11. Toxicological Information

- Acute Toxicity : No data available
- Skin Corrosion/ Irritation : No data available
- Serious Eye Damage/ Eye  
Irritation : No data available
- Sensitization – Respiratory or : No data available
- Sensitization - Skin
- Germ Cell Mutagenicity : No data available
- (Mutagenicity)
- Carcinogenicity : No data available
- Reproductive Toxicity : No data available
- Specific Target Organ Toxicity : No data available
- (Single Exposure)
- Specific Target Organ Toxicity : No data available
- (Repeated Exposure)
- Aspiration Hazard : No data available

## 12. Ecological Information

- Ecotoxicity : No data available
- Persistence and : No data available
- Degradability
- Bioaccumulation : No data available
- Potential
- Mobility in Soil : No data available
- Harmful Effects on : No data available

Ozone Layer

### 13. Disposal Considerations

- Residual Waste : Dispose of this CRM in accordance with applicable legislation and local government ordinance.  
Entrust disposal of residual waste to a professional waste disposal company licensed by prefectural governor etc., or to a local government if it provides disposal services.  
If entrusting disposal of residual waste, make a waste disposal company etc. fully understand relevant risks and hazards.
- Contaminated Container and Package : Dispose of containers after thoroughly removing their contents.

### 14. Transport Information

#### International Regulations

- UN Number : Not applicable
- Shipping Name : -
- UN Classification : -
- Packing Group : -
- Marine Pollutant : Not applicable
- Special Safety Precautions for Transportation or Transportation Means : Transport this CRM carefully while keeping it away from direct sunlight and fire and preventing accidental release due to falling, being knocked over, etc.

#### Japanese Regulations

- Land Transportation : Comply with Fire Service Act, Poisonous and Deleterious Substances Control Act, and High-Pressure Gas Safety Act.
- Marine Transportation : Comply with Ship Safety Act and Act on Port Regulations.
- Air Transportation : Comply with Civil Aeronautics Act.

### 15. Regulatory Information

No applicable laws

### 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 precautions given in this document are applicable only to conditions of normal handling. When handling this CRM under special conditions etc., it is recommended to take safety precautions 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 CRM.