

Safety Data Sheet



1. Identification of the Substance/Mixture and the Supplier

Supplier : National Institute of Advanced Industrial Science and Technology (AIST)
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 Office in Charge : Reference Materials Office, Center for Quality Management of Metrology, National Metrology Institute of Japan
 Person in Charge : Certified Reference Material Staff
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 Emergency Contact : Same as above

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Revised on : -

ID Number : 6402002

Identity of Substance/Mixture : Certified reference material: NMIJ CRM 6402-b
 Aldosterone in Human Serum (3 Concentration Levels)
 Recommended Use of the Chemical and Restriction on Use : This CRM is intended primarily for use in calibration of analytical instrument and evaluating the accuracy and validation of analytical procedures or instruments for the determination of aldosterone in human serum by instrumental analysis. In addition, this CRM can be used in evaluating the accuracy and validation of analytical instrument and quantitative values by the immunoassay of the aldosterone analysis, after the commutability has been verified by the user.
 Do not use this reference material for other purposes than testing/research.

2. Hazards Identification

GHS Classification : No classification
 GHS Label Element: -
 Signal Word : -
 Hazards Statement: -
 Other Hazards Statement : This reference material is made from commercially available human serum. Although it is found negative in the HBs antigen test, HCV antibody test and HIC antibody test, its infectivity cannot be completely denied. Handle this reference material, therefore, as cautiously as handling of specimens, e.g. use protective gloves. This CRM is for laboratory use only and not for in vivo use.
 Precautionary Statement : [Safety Precaution]
 Wear protective mask, protective gloves, eye protection, etc., when handling this reference material, so as not to allow it to enter mouth or adhere to skin.
 [First-aid Action]

If swallowed: Wash mouth well with clean water.

If in eyes: Rinse with running water for several minutes. Get medical advice/attention, if necessary.

If on skin: Wash with plenty of soap and water. Then Remove/Take off all contaminated clothing and adhered materials.

If skin irritation or rash occurs: Get medical advice/attention.

[Storage]

Store in a dark, clean environment at less than -20 °C.

[Disposal]

Dispose of this reference material in accordance with applicable legislation and local government ordinance. For discard, distinguish medical waste and industrial waste.

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

3. Composition/Information on Ingredients

Substance/Mixture	:	Mixture
Chemical name	:	Aldosterone in Human Serum
Ingredient(1)	:	Human Serum
Amount	:	99 % or over
Chemical formula	:	-
Molecular weight	:	-
Official Gazette	:	Act on the Evaluation of Chemical Substances and Regulation of
Reference No.	:	Their Manufacture, etc. : -
	:	Industrial Safety and Health Act : -
CAS number	:	-
Ingredient(2)	:	Aldosterone
Synonym	:	11β,21-Dihydroxypregn-4-ene-3,18,20-trione
	:	18-Aldocorticosterone
	:	11β,21-Dihydroxy-3,20-dioxo-4-pregnen-18-al
	:	Reichstein X
Amount	:	Ca. 200 pg/ml to 800 pg/ml
Chemical formula	:	C ₂₁ H ₃₂ O ₅
Molecular weight	:	360.44
Official Gazette	:	Act on the Evaluation of Chemical Substances and Regulation of
Reference No.	:	Their Manufacture, etc. : -
	:	Industrial Safety and Health Act : -
CAS number	:	52-39-1
Hazardous Ingredient	:	-

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 immediately.
Expected Acute and Delayed Symptom	:	-
Most Critical Characteristic and Symptom	:	-
Protection for first aid provider	:	Use appropriate protective equipment to avoid inhalation.

5. Fire-fighting Measures

Extinguishing Media	:	Use a fire extinguishing agent suitable for surrounding fire.
Fire-Specific Hazards	:	—
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.
Protecting fire-fighting personnel	:	Extinguish from windward, avoid inhaling toxic gases. Use personal protective equipment such as fire-resistant clothing, self-contained compressed air breathing apparatus, closed circuit breathing apparatus, rubber gloves, rubber boots, etc.

6. Accidental Release Measures

Personal Precaution	:	Use appropriate personal protective equipment during the operation to avoid skin contact and contamination of clothes.
Personal Protective Protective equipment and emergency procedure	:	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	:	Adsorb spillage with waste clothes or wiping clothes or dry sand, and collect 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 : Do not put this reference material into eyes, administer it orally, or inject it.

Precautions : Wear protective mask, protective gloves, eye protection, etc., when handling this reference material, so as not to get in mouth or on skin.

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 use.

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 area.

NMIJ CRM 6402 IS INTENDED FOR IN-VITRO LABORATORY USE ONLY. THIS IS A HUMAN SOURCE MATERIAL. HANDLE PRODUCT AS A BIOHAZARDOUS MATERIAL CAPABLE OF TRANSMITTING INFECTIOUS DISEASE. The supplier of this material has reported that serum material used in the preparation of this product has been tested and found non-reactive/negative for hepatitis B surface antigen, hepatitis C virus, and human immunodeficiency virus antigen. However, no known test method can offer complete assurance that hepatitis B virus, hepatitis C virus, HIV, or other infectious agents are absent from this material. Accordingly, this human blood-based product should be handled at higher as recommended for any POTENTIALLY INFECTIOUS HUMAN SERUM.

Storage

Appropriate Storage Conditions : Avoid direct sun-light and store in a clean freezer (less than -20 °C)

Safe Container Packaging Material : Plastic

※Please refer CRM certificate about storage conditions as reference material.

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 : Seal.

Personal Protective Equipment (PPE)

Respiratory System : Protective mask

Hands : Protective gloves

Eyes : Protective glasses

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. : Liquid samples in 3 vials.
- Color : Clear and pale yellow
- 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 : Soluble in water
- *n*-Octanol/water partition coefficient (Log $P_{o/w}$) : No data
- Auto-ignition temperature : No data

10. Stability and Reactivity

◇Chemical Stability

- Stable under recommended storage conditions

◇Reactivity

- No information available

◇Conditions to Avoid

- Sunlight, Heat

- ◇ Hazardous Decomposition Products
- No information available
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11. Toxicological Information

Although this CRM does not include hazardous materials, to ensure safety handling, take care not to adhere to the skin or enter in the mouth.

12. Ecological Information

Persistence and Degradability

- No data available

Bioaccumulative Potential

- No data available

Ecotoxicity

- No data available
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13. Disposal Considerations

Residual Waste : Dispose of this reference material in accordance with applicable legislation and local government ordinance. For discard, distinguish medical waste and industrial waste.

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 : Avoid direct sunlight and fire sources and transfer with care not to spill/leak by dropping or falling, etc.

15. Regulatory Information

- No applicable laws and regulations
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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.
