

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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Identity of Substance/Mixture : Certified reference material: NMIJ CRM 6002-a
 Testosterone
 Recommended Use of the Chemical and Restriction on Use : This CRM is primary standard for use in calibration of analytical instruments and validation of analytical methods and instruments.
 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 : -
 GHS Label Element : -
 Signal Word : -
 Hazards Statement : -
 Other Hazards Statement : Toxic if inhaled or swallowed.
 Causes irritation if in contact with eyes, skin and mucous membrane.
 May cause such symptoms as discomfort, nausea and headache through prolonged exposure.
 Probably carcinogenic to humans (IARC: Group 2A).
 Low risk in normal handling.

Precautionary Statement : [Safety Precaution]
 Use appropriate protective equipment to avoid inhalation and contact with eyes, skin or clothing.
 [First-aid Action]
 If inhaled: Remove victim to fresh air, rest, and keep warm.
 Get medical advice/attention.
 If on skin: Wash with plenty of soap and water.
 Get medical advice/attention if necessary.

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 Ingested: Give plenty of water or salt water and induce vomiting.

Get medical advice/attention, if necessary.

[Storage]

Store this reference material in a light-shielded clean environment at about 5 °C.

[Disposal]

Dispose of this reference material in accordance with applicable legislation and local government ordinance.

Entrust disposal of this reference material and its containers to a professional waste disposal company licensed by prefectural government.

The other hazards than the above do not result in classification or are not covered by the GHS.

3. Composition/Information on Ingredients

Substance/Mixture	:	Single substance
Chemical Identity	:	Testosterone
Content	:	99.84%
Chemical Formula	or	$C_{19}H_{28}O_2$
Structural Formula		
Molecular Weight	:	288.43
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 :-
CAS Number	:	58-22-0
Hazardous Ingredient	:	None

4. First-aid Measures

If in eyes	:	Rinse with plenty of water immediately for 15 minutes or more. Get medical advice/attention as necessary.
If on skin	:	Wash with plenty of soap and water.
If inhaled	:	Remove victim to fresh air and keep at rest and warm.
If swallowed	:	Drink a large amount of water to induce vomiting. Get medical assistance, if necessary.
Measures to be taken to protect the person applying first aid	:	Use personal protective equipment.

5. Fire-fighting Measures

- Extinguishing Media : Water spray, powder.
- Fire-Specific Hazards : May form irritating or toxic fume or gas at the time of fire.
- Specific Fire-Fighting Method : Remove any combustible sources from the seat of fire and extinguish using appropriate extinguishing agent. Transfer the movable container to a safe place promptly. If impossible to transfer, use water spray to cool the periphery.
- Protection of Fire-Fighters : Carry out fire-fighting from the windward in order to avoid breathing hazardous gas. Use personal protective equipment such as fire protection clothing, breathing apparatus, circulating oxygen respirator, rubber gloves, rubber boots, and etc.

6. Accidental Release Measures

- Personal Precaution : Use appropriate personal protective equipment during the operation to avoid contact with skin, eyes, and clothes.
- Personal Protective 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 : Adsorb spillage with waste clothes, wiping clothes, dry sand, or earth, and collect in empty containers that can be sealed. Then 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 Controls : Avoid contact with eyes and skins.
- 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 : Protect from sunlight. Store in dark at cold, dry, and well ventilated place.
Conditions
Incompatible : No data
materials
Safe Container : Glass
Packaging Material

8. Exposure Controls/Personal Protection

Threshold Limit Value

- Not specified

Permissible Concentration

- ACGIH TLV-TWA : Not specified
- Values recommended by : Not specified

Japan Society for Occupational Health

- OSHA PEL TWA : Not specified

Facility engineering

Ventilation, exhaust : When dust or mist is generated, seal the source, and provide local exhaust ventilation or central ventilation.
Install facilities to rinse eyes and to wash hands and body in the vicinity of a place handling this reference material and label them.

Safety : -

management/gas detector

Precautions for storage : Store this reference material in a light-shielded clean environment at about 5 °C.

Personal Protective Equipment (PPE)

Respiratory System : Dust mask
Hands : Protective gloves
Eyes : Eye protector with side plates (google type, if necessary)
Skin and Body : Protective clothing with long sleeves

Hygiene measure

Treat in accordance with rules on Industrial hygiene and Industrial safety.

9. Physical and Chemical Properties

• Appearance, etc.	: Powder
• Color	: White
• Odor	: No data
• pH	: No data
• Melting point	: 153 °C to 157 °C
• 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	: Insoluble in water. Soluble in ethanol. Slightly soluble in ether.
• <i>n</i> -Octanol/water partition coefficient (Log <i>P</i> _{o/w})	: No data
• Auto-ignition temperature	: No data

10. Stability and Reactivity

◇Stability

- Deteriorated by light

◇Reactivity

- No data available

◇Conditions to Avoid

- Sunlight, Heat

◇Hazardous Decomposition Products

- Carbon monoxide (CO)
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11. Toxicological Information

Acute Toxicity Abdominal cavity Rat LDLo:326 mg/kg (RTECS)
Oral mammalian animal species unknown LD50:> 5 mg/kg
(RTECS)

Carcinogenicity IARC:Group-2A (For humans, this reference material probably has
carcinogenicity.)

12. Ecological Information

Persistence and Degradability

- Not biodegradable etc.

Bioaccumulative Potential

- No data available

Ecotoxicity

- No data available
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13. Disposal Considerations

- Residual Waste : Incineration method
Dissolve this reference material in combustible solvent. Spray it into an incinerator equipped with scrubber and incinerate it. Dispose in accordance with applicable regional, national and local laws and regulations.
When the above-mentioned treatments are not possible, entrust disposal of residual waste to a professional waste disposal company licensed by prefectural governor.
- Contaminated Container and Package : Dispose of containers after thoroughly removing their contents.
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14. Transport Information

- UN Number : Not applicable
UN Classification : Not applicable
Shipping Name : -
Marine : Not applicable
Pollutant
Precautions : Check before transport if containers are free from leakage.
Load in a way to avoid overturning, falling and being broken, and take all necessary measures to prevent collapsing.
Protect from direct sunlight.
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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.
