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
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Identity of Substance/Mixture: Certified reference material NMIJ CRM 6008-a

Uric acid

Recommended applications and limitations of use: This reference material may be used for calibration of analysis equipment and evaluation of analytical reagents for determining the quantity of uric acid, as well as for precision management of analysis equipment and validation of analytical methods and instruments. Do not use this reference material for other purposes than testing/research.

2. Hazards Identification

GHS classification: Classification not possible
GHS-labeling:

Element:
Signal word: -
Hazard and toxicity: -
Information:
Other toxicity information: Harmful when inhaled or ingested. Contact with the eyes or mucous membranes may cause irritation. Prolonged exposure may cause symptoms such as discomfort, nausea, or headaches.

Cautionary statement:
[Safety measures] Wear protective glasses, protective clothing, and personal protective equipment.
Avoid inhalation.

[Emergency measures] Inhalation: Remove the exposed person to fresh air, gargle with fresh water. Provide them medical attention in the presence of symptoms.
suggesting.
Skin contact: Wash with plenty of water and soap. Seek medical attention if necessary.
Eye contact: Flush thoroughly with plenty of clean water. Seek medical attention in the presence of symptoms.
Ingestion: Induce vomiting by giving water or salted water. Get medical attention in case of abnormalities.

[Storage]
Keep out of sunlight in a clean desiccator at room temperature (approximately 15 °C to 25 °C).

[Disposal]
Follow the related regulations and ordinances of the local government.
Use a waste-treatment firm certified by prefectural governor.
Classification is impossible or not applicable for hazards not mentioned above.

3. Composition/Information on Ingredients

Substance or mixture : Single substance

Chemical name : Uric acid
Synonyms : 7,9-Dihydro-1H-purine-2,6,8(3H)-trione
Content : 99.6 % (kg/kg)
Chemical or structural formula : C₅H₄N₄O₃
Molecular weight : 168.11
Reference Number in Gazetted List in Japan : Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.        : -(9)-963
                                           Industrial Safety and Health Act : Published
CAS number : 69-93-2

4. First-aid Measures

Eye contact : Flush immediately with plenty of clean water. Seek medical attention in the case of presence of symptoms suggesting.
Skin contact : Wash with plenty of fresh water and soap. Seek medical attention in the case of inflammation.
Inhalation : Seek fresh air and rinse the mouth well with fresh water. Contact a physician in the case of presence of symptoms.
Ingestion : Induce vomiting by giving plenty of water or salted water. Seek medical attention in case of abnormalities.

Estimated acute and late symptom
Most important symptoms and effects : ·
Protection of first-aiders: Use personal protective equipment.

5. Fire-fighting Measures

Extinguishing media: Use extinguishing media for peripheral fires. In case of peripheral fire, use water; dry extinguishing agents, bubble extinguisher, carbon dioxide extinguisher, or dry sand.

Specific hazards with regard to firefighting: Irritant or toxic fume (or gas) may be generated in the event of fire. Wear appropriate protective equipment to prevent the inhalation.

Specific methods of firefighting: Eliminate the origin of fire and put the fire out with extinguishing media. If possible, move containers to a safe place. If not, cool the peripheral areas with water spray.

Protection for firefighters: Work from the windward side to prevent the inhalation of toxic gas. Use respirator and circulating oxygen breathing apparatus if necessary.

6. Accidental Release Measures

Personal precautions: Promptly remove all potential ignition sources from peripheral areas. In case of ignition, prepare the equipment for firefighting.

Protective equipment and emergency measures: When accidental release takes place indoors, thoroughly clear the air until the emergency measures are complete. Before the operation, wear appropriate protective equipment to protect the skin from droplets and to prevent inhalation of dust and gas.

Environmental precautions: Prevent the environment from being contaminated by the spilled products or material discharged to rivers, etc. Contaminated waste water must be treated appropriately before discharging.

Recovery and neutralization: Recover the leakage in an empty container and clean the contaminated area with waste cloth, scrubbing cloth, etc.

Prevention of second accident: Rope off the leakage area and prohibit unauthorized persons' entrance. Work on the windward and evacuate people on the leeward.

7. Handling and Storage

Handling

Technical measures: None

Local ventilation and general ventilation: In case steam or mist is generated, seal the source and provide local exhaust ventilation.

Precautions for safe handling: Avoid rough handling such as dropping, shocking, dragging, or otherwise agitating the container. Do not cause the substance to leak or overflow, and prevent steam from being generated. Seal the container after use.
Wash hands, face, and other necessary parts thoroughly, and
gargle after handling.
Do not eat, drink, or smoke in places other than the designated
areas. Do not bring gloves and other contaminated protective
equipment into the break area.
Only authorized people are allowed in the handling area.
Wear appropriate protective equipment to prevent inhalation, or
contact with eyes, skin, or clothing.
When handling indoors, provide local exhaust ventilation.

Storage
Appropriate storage conditions : Keep out of sunlight in a clean desiccator at room temperature
                               (approximately 15 °C to 25 °C).
Safe packaging materials : Glass

8. Exposure Controls/Personal Protection

Standard control concentration
N/A

Threshold limit values
- ACGIH TLV-TWA : N/A
- Value recommended by Japanese Society of Occupational Health
  - OSHA PEL TWA : N/A

Engineering controls
Ventilation and emission : In case of closed environment seal up the source and install local exhaust equipment.
                          Install eye washer and shower facility close to the handling area and indicate the facility conspicuously with signage.

Safety management and gas detection : -

Storage precautions : Keep out of sunlight in a clean desiccator at room temperature (approximately 15 °C to 25 °C).

Protective Equipment
Respiratory protection : Dust protective masks
Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Long sleeved protective clothing, protective boots

9. Physical and Chemical Properties
- Appearance, etc. : Powder
- Color : White
- Odor : No data
- pH : No data
- Melting point : Decomposes above 400 °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: 1.89
- Solubility: No data
- Octanol/water partition coefficient (Log Po/w): No data
- Auto-ignition temperature: No data

10. Stability and Reactivity
◇ Stability
  - Stable under normal conditions
◇ Reactivity
  - Reacts with strong oxidizing materials and ignites
◇ Conditions to avoid
  - Sunlight and heat
◇ Hazardous decomposition products
  - Carbon monoxide, nitrogen oxides

11. Toxicological Information
No data

12. Ecological Information
Degradability/Concentration
- No data
Bioaccumulation
- No data
Ecotoxicity
- No data

13. Disposal Considerations
Residues: Incineration
  Incinerate in the incinerator with a scrubber system.
  Dispose the contents and container in accordance with related regulations and ordinances of the local government. If disposal according to the above method is not possible, use a waste-treatment firm certified by prefectural governor.
Contaminated containers and packaging: To dispose of an empty container, completely remove the contents.
14. Transport Information

UN Dangerous Goods Number : Not applicable
UN Classification : Not applicable
Product name : -
Packing group : -
ICAO/IATA : -
Marine pollutant : Not applicable
Matters to be attended to : Avoid direct sunlight. Prevent leakage and fire caused by dropping, shock or agitation to the container, and transport with caution.

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.