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.: +81-29-861-4059
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Emergency Contact: Same as above

Prepared on: December 11, 2012
Revised on: March 31, 2017
ID Number: 3008001

Identity of Substance/Mixture: Certified reference material: NMIJ CRM 3008-a
Recommended Use of the Chemical and Restriction on Use:
This CRM can be used to standardize titrants for argentometry, and to control the precision of analysis or to confirm the validity of analytical methods or instruments during analysis of chloride ion. Do not use this reference material for other purposes than testing/research.

2. Hazards Identification

GHS Classification: Serious eye damage/ Eye irritation: Hazard Category 2B
Signal Word: Warning
Hazardous Statement: Eye Irritation
Precautionary Statement:
[Action] 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] Store in a dark, clean and dry environment at less than relative humidity of 60 %.
[Disposal] Incinerate this reference material and its containers in an appropriate incinerator. Or 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
3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Substance or mixture</th>
<th>: Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Identity</td>
<td>: Sodium chloride</td>
</tr>
<tr>
<td>Synonym</td>
<td>: -</td>
</tr>
<tr>
<td>Content</td>
<td>: 99.9 % or above</td>
</tr>
<tr>
<td>Chemical Formula</td>
<td>: NaCl</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>: 58.44</td>
</tr>
<tr>
<td>Reference Number in Gazette List in Japan</td>
<td>: Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (1)·236 Industrial Safety and Health Act : Published</td>
</tr>
<tr>
<td>CAS Number</td>
<td>: 7647·14·5</td>
</tr>
</tbody>
</table>

4. First-aid Measures

If in eyes : Rinse cautiously with clean water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

If on skin : Wash with plenty of water and soap.

If inhaled : Remove victim to fresh air and keep at rest. Rinse mouse and nose thoroughly with plenty of water.

If swallowed : Rinse mouth thoroughly with water. Drink a lot of water then it induces vomiting. Seek medical attention, if necessary.

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 : This material is incombustible. Use a fire extinguishing agent suitable for surrounding fire.

Fire-Specific Hazards : May form irritating or toxic fume (or gas) at the time of fire. Extinguish from windward, Use personal protective equipment to avoid inhaling fume or toxic gases.

Specific Fire-Fighting Method : This material is nonflammable. 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, and circulating oxygen respirator.
6. Accidental Release Measures

**Personal Precaution**
- **Personal Protective Equipment and Emergency Procedures**:
  - Remove ignition source in the vicinity immediately. Prepare fire-fighting equipment for the possibility of fires.

**Environmental Precautions**:
- 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.

**Recovery and Neutralization**:
- 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.

**Prevention of Secondary Disaster**:
- Adsorb spillage with waste clothes, wiping clothes or dry sand, and collect in empty containers. Rinse away the remains with plenty of water.

- 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**:
- Nothing special

**Local and General Ventilation Precautions**:
- Use local ventilation system in indoor handling areas.

**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.
- 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.

**Storage**

**Appropriate Storage Conditions**:
- Keep out of sunlight and heat sources. Seal the case and stored at a clean and cool place at normal room temperature. Avoid contact with air.

**Safe Container Packaging Material**:
- Glass

※ Please refer the certificate about the details of appropriate storage conditions and precautions for the use as reference material.
8. Exposure Controls/Personal Protection

Threshold Limit Value
   Not specified

Permissible Concentration
   - ACGIH TLV-TWA : Not specified
   - Values 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 : Store in a dry place. Seal and avoid contact with air.

Personal Protective Equipment (PPE)
   - Respiratory System : Protective mask, Self-contained compressed air breathing apparatus.
   - Hands : Protective gloves
   - Eyes : Protective glasses, Eye protector with side plates.
     If necessary, goggle type or safety face mask.
   - Skin and Body : Protective clothing, Protective boots etc.

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

9. Physical and Chemical Properties

   - Appearance, etc. : Powder crystal
   - Color : White
   - Odor : Odorless
   - pH : 5.0 to 8.0 (50 g/L, 25 °C)
   - Melting point : 801 °C
   - Boiling point : 1413 °C
   - Flashing point : No data
   - Explosive range : No data
   - Vapor pressure : No data
   - Relative vapor density(Air=1) : No data
   - Specific gravity or bulk : 2.164 (20/4 °C)

Specific gravity
   - Solubility : Soluble in water and insoluble in ethanol.
   - n-Octanol/water partition coefficient (Log Po/w) : No data
   - Auto-ignition temperature : No data

10. Stability and Reactivity

   ◇ Chemical Stability
11. Toxicological Information

Acute Toxicity
- Oral Rat  LD50=3,000 mg/kg
- Abdominal cavity Mouse  LD50=2,602 mg/kg
- Intravenous Mouse  LD50=645 mg/kg
Skin corrosivity / irritancy
- Skin irritation Rabbit 500 mg/24H  light
Severe eye damage / irritancy
- Eyes Rabbit 10 mg  Moderate
- Eyes Rabbit 100 mg/24H  Moderate
Reproductive cell mutagenicity  No data available.
Carcinogenicity  No data available.

12. Ecological Information

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

13. Disposal Considerations

- Dispose in accordance with applicable regional, national and local laws and regulations.
- Dispose of containers after thoroughly removing their contents.

14. Transport Information

UN Number  :  Not specified
UN Classification  :  Not specified
Shipping Name  :  Sodium chloride
Packing Group  :  —
ICAO/IATA  :  —
Marine Pollutant  :  Not specified
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.