

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 No. : Same as above

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ID Number : 3007001

Identity of Substance/Mixture : Certified reference material: NMIJ CRM 3007-a
Sodium Oxalate
Recommended Use of the Chemical and Restriction on Use : This certified reference material (CRM) is intended for the standardization of titrants for oxidimetry and so on.
Do not use this reference material for other purposes than testing/research.

2. Hazards Identification

GHS Classification: Serious eye damage/ Eye irritation : Hazard Category 2A

GHS Classification:



Signal Word: Warning

Hazards Statement: Serious eye irritation

Precautionary Statement: [Precaution]

Statement: Wear protective glasses / face protection.

Wash hands thoroughly after handling.

[Action]

If inhaled: Remove victim to fresh air, and bite his nose and gargle.

Get medical advice/attention if you feel unwell.

If swallowed: Wash mouth and drink one or two glasses of water or milk. Immediately get medical advice/attention.

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: Rinse skin with running water. Get medical

advice/attention if necessary.

[Storage]

Store in a dry environment at less than relative humidity of 60 %.
Close cap tightly and hermetically after use. Avoid exposure to acids and alkalis. This CRM is regulated poisonous substance and store in a locked and keyed area.

[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.

Hazards not mentioned above are either not classifiable or not applicable.

3. Composition/Information on Ingredients

Substance/Mixture	:	Substance
Chemical Identity	:	Sodium oxalate
Synonym	:	Oxalic acid soda
Content	:	99 % or above
Chemical Formula	:	$\text{Na}_2(\text{COO})_2$
Molecular Weight	:	134.0
Reference Number in Gazetted List in Japan	:	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (2)-922 Industrial Safety and Health Act : Published
CAS Number	:	62-76-0

4. First-aid Measures

If in eyes	:	Rinse mouth thoroughly with water. Immediately call a physician.
If on skin	:	Rinse mouth thoroughly with water. Immediately call a physician.
If inhaled	:	Remove victim to fresh air immediately. Have victim blow his/her nose. Rinse mouth. Get medical advice/attention.
If swallowed	:	Rinse mouth with water. Have victim drink a couple of glasses of water or milk. Get medical advice/attention immediately.
Measures to be taken to protect the person applying first aid	:	Use personal protective equipment.

5. Fire-fighting Measures

Extinguishing Media	:	Early stage fire extinguishing activity with powder, carbon dioxide, powder fire extinguishing equipment, instrument. Foam extinguishing agent for water soluble liquid (alcohol-resistant foam), carbon dioxide, powder, sand, water.
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Unavailable	: Rod-like water injection is prohibited
Extinguishing Media	
Fire-Specific Hazards	: In the case of fire, may emit irritating or toxic fume (or gas). Fire extinguishing media may cause contamination.
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. Extinguish from windward, avoid inhaling toxic gases. It is necessary to perform the appropriate action not to spill substances which have adverse influences, into the environment by water cannon, etc. for fire fighting.
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	: Remove ignition source in the vicinity immediately. Prepare
Personal Protective Equipment and Emergency Procedures	: fire-fighting equipment for the possibility of fires. 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 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 Precautions	: Avoid contact with strong oxidizing substances.
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.

Do not eat, drink, or smoke during handling

Storage

Appropriate Storage Conditions : Protect from sunlight. Store in tightly-closed container at room temperature while keeping humidity at about 60 % or less. Protect from any effects of acid, alkali and other chemical substances.

Store in a locked area.

This reference material should be handled as a deleterious substance stipulated in Poisonous and Deleterious Substances Control Act.

Safe Container : Polyethylene, glass

Packaging Material

※ Please refer to the certificate regarding details of appropriate storage conditions and precautions for use as reference material.

8. Exposure Controls/Personal Protection

Threshold Limit Value

Not specified

Permissible Concentration

• ACGIH TLV-TWA (2000) : (Information Oxalic acid 8H TWA 1mg/m³)

• Values recommended by Japan Society for Occupational Health(1998) : Not specified

• OSHA PEL TWA : (Information Oxalic acid TWA 1mg/m³, STEL 2mg/m³)

Engineering Controls

Ventilation/Exhaust : General ventilation system. When dust or mist is generated, seal the source, and provide local exhaust ventilation.

Safety Control/Gas Detection : Measuring equipment, Detecting tube

Storage Precaution : Ventilate along floor surface. Seal. Keep away from flammable substances, reducing agents and strong oxidizers.

Personal Protective Equipment (PPE)

Respiratory System : Protective gas mask for organic vapors, Self-contained compressed air breathing apparatus.

- Hands : Protective gloves
- Eyes : Safety google
- Skin and Body : Protective clothing, face mask

Hygiene Controls

Handle this reference material in accordance with industrial health and safety standards.
Replace adsorbent of masks etc. regularly or before use.
Keep container tightly closed or use local ventilation system when dust is generated.

9. Physical and Chemical Properties

- Appearance, etc. : Powder crystal
- Color : White
- Odor : Odorless
- pH : No data
- Melting point : 250 °C to 270 °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 : 2.34
- Solubility : Soluble in water and insoluble in ethanol.
- *n*-Octanol/water partition coefficient (Log Po/w) : No data
- Auto-ignition temperature : No data
- Decomposition Temperature : Above 400 °C

10. Stability and Reactivity

◇Chemical Stability

- Stable under normal conditions. Get decomposed into sodium carbonate and carbon monoxide when being heated to 400°C or higher.

◇Conditions to Avoid

- Sunlight, Heat, Humidity

◇Hazardous Decomposition Products

- Sodium carbonate, Carbon monoxide

11. Toxicological Information

- Acute Toxicity Oral Rat LD50= 11160 mg/kg (RTECS)
Oral Mouse LD50= 5094 mg/kg (RTECS)
Abdominal cavity Mouse LD50= 155 mg/kg (RTECS)
Dermal Mouse LD50= 100 mg/kg (RTECS)
- Skin Corrosion/ Irritation No data available

Serious Eye Damage/
Eye Irritation

ECETOC TR48(2)(1998): In the test using rabbits, on the final observation day (on the 14th day after treatment), two rabbits out of three almost fully recovered but the remaining one rabbit did not recover so much. There are no data about recovery for the period of 21 days after treatment. According to the average of Draize Score in 24, 48 and 72 hours after treatment and the observation on the seventh day after treatment, none of the three rabbits recovered fully.

12. Ecological Information

(For information, as Oxalic acid)

Persistence and Degradability

- Degradability: 37 % by BOD (METI “Existing Chemical Substance Safety Check”)

Bioaccumulative Potential

- No data available

Ecotoxicity

- Fish toxicity: No data available

13. Disposal Considerations

Residual Waste

Incineration method

Incinerate in an incinerator equipped with scrubber

Purify wastewater containing this reference material by treating it with activated carbon etc. before discharging it.

- 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 applicable

UN : —

Classification

Shipping Name : —

Packing Group : —

ICAO/IATA : Not applicable

Marine : Not applicable

Pollutant

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

◇Poisonous and Deleterious Substances Control Act

- Deleterious substance Packing Grade 3

◇This SDS is originally prepared for the use of the material in Japan, thus the stated laws

and regulations are stipulated and carried out in Japan. The use of the material in other countries should be referred to and by application of the relevant laws and regulations of the country in which the material will be used.

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.
