

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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Identity of Substance/Mixture : Certified reference material: NMIJ CRM 5602-a
 Polycarbonate for Positron Hole-size Measurements
 Recommended Use of the Chemical and Restriction on Use : This reference material can be used for quality control of positron annihilation lifetime measurements for polymers with ortho-positronium lifetime longer than 1 ns and for samples similar to polycarbonate as well as for validation of the measurement methods and measurement results.
 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: Cannot be classified
 GHS Label Element: Not applicable
 Signal Word: -
 Hazards Statement: -
 Other Hazards: -
 Precautionary Statement: [Safety Precaution]
 Use appropriate personal protective equipment.
 [First-Aid Measures]
 Ingestion: Make the person vomit as much as possible and seek medical examination/treatment when there is anything wrong.
 Eye contact: Irrigate eyes with clean water immediately and seek medical examination/treatment when there is anything wrong.
 [Storage]
 Store this reference material in light-shielded clean environment at room temperature, keeping it away from hot and humid conditions.
 [Disposal]

Abide by relevant legislation and local government ordinances.
Entrust disposal of this reference material to a professional waste disposal company licensed by prefectural governors.

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

3. Composition/Information on Ingredients

Single Substance/Mixture	:	Single Substance
Chemical Identity	:	Polycarbonate
Content	:	99 %
Chemical Formula or Structural Formula	:	-
Molecular Weight	:	-
Reference Number in Gazetted List in Japan	:	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (7)-738 Industrial Safety and Health Act : Published
CAS Number	:	25971-63-5
Hazardous Ingredient	:	-

4. First-aid Measures

Eye Contact	:	Irrigate eyes thoroughly with clean water. Seek medical examination/treatment when there is anything wrong.
Skin Contact	:	Flush exposed skin area thoroughly with clean water. Take off contaminated clothing, shoes etc. Seek medical examination/treatment when there is anything wrong.
Inhalation	:	Move the person to fresh air and keep him/her at rest and warm. Seek medical examination/treatment when there is anything wrong.
Ingestion	:	Make the person vomit as much as possible and seek medical examination/treatment when there is anything wrong.
Anticipated Acute and Delayed Symptoms	:	-
The Most Important Symptoms and Effects	:	-
Protection of First Responders	:	-

5. Fire-fighting Measures

Extinguishing Media	:	dry-chemical fire-extinguisher, foam fire-extinguisher, CO ₂ , sand and sprayed water
Fire-Specific	:	Carry out fire-fighting from the windward in order to avoid

Hazards	inhalation of hazardous gases such as CO which may be generated.
Specific Fire- Fighting Method	: Eliminate combustion sources at the origin of a fire and put out fire by using extinguishing media. Move movable containers immediately to a safe place. In the case of immovable containers, cool their surroundings with sprayed water.
Protection of Fire-Fighters	: Carry out fire-fighting from the windward in order to avoid inhalation of hazardous gas. Use personal protective equipment such as fireproof clothing, heat-resistant rescue suit, protective clothing, air respirator, closed-circuit self-contained breathing apparatus (SCBA), rubber gloves and rubber boots.

6. Accidental Release Measures

Personal Precaution	: Immediately remove potential ignition sources from surrounding areas. Make fire-extinguishing tools available to prepare for fire ignition.
Personal Protective Equipment and Emergency Procedures	: Ventilate the affected area thoroughly until the clean-up operation is completed when accidental release takes place indoor. 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 this reference material 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	: Collect this reference material in empty containers.
Secondary Disaster Prevention Measures	: 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	: Keep this reference material from alkalis and hot and humid conditions.
Local and General Ventilation	: Use local ventilation equipment when handling this reference material in indoor environment.
Precautions for Safe Handling	: Avoid rough handling such as turning over, dropping, giving a shock to or dragging a container. Do not leave this reference material in hot environment. Seal the container after use. Use appropriate personal protective equipment when handling this reference material.
Storage	:

- Appropriate Storage Conditions : Store this reference material by keeping it away from heat and ignition source.
Keep this reference material away from heat and moisture and store it in light-shielded clean environment at room temperature.
- Safe Container : Brown glass
- Packaging Material

8. Exposure Controls/Personal Protection

Cut-Off Value/Concentration Limit

Not specified

Permissible Concentration

- ACGIH TLV-TWA : Not specified
(Recommended value in the 2007 version)
Total dust 10 mg/m³
- Values recommended by Japan Society for Occupational Health : Not specified
(Recommended value in the 2006 version)
Class 3 dust
Inhalant dust 2 mg/m³
Total dust 8 mg/m³
- OSHA PEL TWA : Not specified

Engineering Controls

- Ventilation/Exhaust : If dust is emitted, its source must be hermetically sealed and local ventilation equipment must be installed.
- Safety Control/Gas Detection : -
- Precautions for Storage : Store this reference material by keeping it away from heat and ignition source.
Keep this reference material away from heat and moisture and store it in light-shielded clean environment at room temperature.

Personal Protection Equipment (PPE)

- PPE for Respiratory System : Use dust protective mask and protective mask when dust may be generated.
- PPE for hands : Protective gloves
- PPE for Eyes : Eye protector
- PPE for Skin and Body : Protective clothing

9. Physical and Chemical Properties

- Appearance, etc. : Solid
- Color : Colorless and transparent
- Odor : No data
- pH : No data
- Melting point : No data
- Boiling point : No data

- Flashing point : 522 °C and higher
- Explosive range : Lower concentration limit of dust explosion 25 g/m³
- Vapor pressure : No data
- Relative vapor density(Air=1) : No data
- Specific gravity or bulk specific gravity : 1.2 g/cm³
- Solubility : Insoluble in water
- *n*-Octanol/water partition coefficient (Log Po/w) : No data
- Auto-ignition temperature : No data

10. Stability and Reactivity

- ◇ Stability
 - Deteriorated when contacting with alkalis or solvents. May be hydrolyzed when being kept in hot and humid conditions.
- ◇ Reactivity
 - No data available
- ◇ Conditions to Avoid
 - Sunlight, heat and moisture
- ◇ Hazardous Decomposition Products
 - Carbon monoxide (CO)

11. Toxicological Information

Nothing special

12. Ecological Information

Do not discard or release this reference material to any ocean or waters in order to prevent marine life and avian species from taking it.

13. Disposal Considerations

- Dispose this reference material in accordance with relevant legislation and local government ordinances.
- Dispose empty containers after completely remove their contents.

14. Transport Information

- UN Number : Not applicable
- UN Classification : Not applicable
- Shipping Name : -
- Packing Group : -
- ICAO/IATA : -
- Marine Pollutant : Not applicable
- 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

- ◇ Waste Management and Public Cleansing Act
 - Plastic waste
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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.
