

Safety Data Sheet



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 Material Office, Center for Quality Management of Metrology, The National Metrology Institute of Japan
 Person in Charge : Person in Charge of Reference Materials Office
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 Emergency Contact : Same as above

Creation date : February 28, 2020

Revised on : February 5, 2021

ID Number : 5809001

Identity of Substance/Mixture : Certified reference material NMIJ CRM 5809-a
 Quartz Glass for Thermal Diffusivity Measurement
 Recommended Use of the Chemical and Restriction on Use : This CRM is intended for use in the calibration of instruments, and validation of instruments used for thermal diffusivity measurements.
 Do not use this CRM for other purposes than testing/research.

2. Hazards Identification

GHS Classification: Not classifiable
 GHS Label element : Not available
 Signal word : -
 Hazard communication : -
 Other Hazards : Harmful if inhaled or swallowed.
 Statement : If in eyes: Eye or mucous membrane irritation
 May cause symptoms such as discomfort, nausea, and headache through prolonged exposure
 Precautionary Statement : [Precaution]
 Use protective gloves when handling.
 Broken easily.
 Avoid rough handling such as dropping and giving a shock.
 Be cautious of cuts from broken fragments.
 [First-Aid Measure]
 If swallowed: Give/Drink plenty of water to induce vomiting.
 If unusual symptoms are observed: Get medical advice/attention.
 [Storage]
 Store in a clean environment at room temperature.
 Store in dry air or nitrogen gas.
 Keep away from radiation source.
 [Disposal]

No data available

The other hazards than the above do not result in classification or are not classifiable.

3. Composition/Information on Ingredients

Substance/Mixture	:	Single product
Chemical name	:	Fused Silica Glass for Thermal Diffusivity Measurement
Ingredient	:	Fused silica glass
Synonym	:	Quartz glass, Silica glass, Silicon dioxide
Amount	:	SiO ₂
Chemical formula	:	99.9 % or more
Molecular weight	:	-
Official Gazette Reference No.	:	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. : (1)-548
	:	Industrial Safety and Health Act : Published
CAS number	:	60676-86-0
Hazardous Ingredient	:	-

4. First-Aid Measures

If in Eyes	:	Rinse with plenty of clean water. Get medical advice/attention.
If on Skin	:	Wash with plenty of clean water. If skin irritation occurs: Get medical advice/attention.
If Inhaled	:	Not so harmful in normal handling
If Swallowed	:	Give/Drink plenty of water to induce vomiting. Get medical advice/attention immediately.
Expected Acute & Delayed symptom	:	If in eyes: Irritates eyes or mucous membrane upon contact
Most significant characteristics & symptoms	:	No data available
Protecting the person applying first-aid	:	Low in harm in a normal handling

5. Fire-Fighting Measures

Extinguishing Media	:	Use extinguishing media appropriate for surrounding fire as this reference material is incombustible.
Fire-Specific Hazard	:	Not in particular
Specific Fire-Fighting Method	:	Immediately eliminate all combustible or ignitable materials from fire area and start extinguishing with extinguishing media. Remove movable containers to a safe place promptly.
Protection of	:	Use personal protective equipment such as fire-proof clothing

Fire-Fighters and self-contained compressed air breathing apparatus.

6. Accidental Release Measures

- Personal Precaution : Immediately eliminate all ignitable materials from fire area. Make fire extinguishing media/equipment available to prepare for potential ignition.
- Personal Protective Equipment and Emergency Procedure : Ventilate the affected areas thoroughly, if it is in an indoor environment, until the clean-up operation is completed. Use appropriate personal protective equipment to avoid contact with skin and eyes and contamination of personal clothes.
- Environmental Precaution : Take precautions to prevent spillage from draining into rivers, etc. to adversely affect the environment. Treat contaminated wastewater properly before discharging it.
- Recovery and Neutralization : Collect fragments and broken pieces thoroughly. Rinse away the remains with plenty of water.
- Prevention of Secondary Disaster : No data available

7. Handling and Storage

- Handling
- Engineering Precaution : Not in particular
- Local and General Ventilation : If dust/particles emitted: Provide local exhaust ventilation.
- Precautions for Safe Handling : Avoid rough handling such as knocking over, dropping, giving a shock to and dragging container. Prevent this reference material from leaking, overflowing and splashing. Do not allow vapor to be emitted. Keep container tightly closed after using this reference material. Do not bring gloves and other contaminated personal protective equipment into staff room. Use appropriate personal protective equipment to avoid inhalation, contact with eyes and skin.
- Storage
- Appropriate Storage Conditions : Protect from direct sunlight and air. Store at room temperature.
- Safe Container Packaging Material : Plastic container

8. Exposure Controls/Personal Protection

- Standard control concentration
Not established
- Occupational exposure limit

• ACGIH TLV(s)	:	TWA 0.1 mg/m ³
• Japan Society for Occupational Health recommended reference value	:	Not established
• OSHA PEL	:	8H TWA 10 mg/m ³ (% resp SiO ₂)
Facility engineering control		
Ventilation, exhaust	:	If generating dust/particle, seal the source of release and install local exhaust ventilation equipment
Safety control, gas detection	:	No data available
Storage precaution	:	No data available
Protective equipment		
Respiratory tract protection	:	For dust/particle, wear a dust-protective mask
Hands	:	Protective gloves
Eyes	:	Safety goggles
Skin and body	:	Protective clothing

9. Physical and Chemical Properties

Appearance, etc.	:	Thickness 1.5 mm、15 mm solid square pieces
Color	:	Colorless, transparent
Odor	:	No data available
pH	:	No data available
Melting point	:	No data available
Boiling point	:	No data available
Flashing point	:	No data available
Explosive range	:	No data available
Vapor pressure	:	No data available
Relative vapor density (Air=1)	:	No data available
Specific gravity or bulk specific gravity	:	No data available
Solubility	:	No data available
<i>n</i> -Octanol/water partition coefficient (Log Po/w)	:	No data available
Auto-ignition temperature	:	No data available

10. Stability and Reactivity

- ◇Stability
 - Stable under normal condition
- ◇Reactivity
 - No data available
- ◇Condition to avoid
 - Sunlight, heat, humidity
- ◇Hazardous decomposition products
 - No data available

11. Toxicological Information

Acute toxicity	: Oral: Rat LD50 3160 mg/kg Abdominal: Rat LDLo 50 mg/kg Intravenous: Rat LD50 15 mg/kg Endotracheal: Rat LDLo 10 mg/kg
Skin corrosivity/ irritation	: No data available
Serious eye damage/ Eye irritation	: No data available
Respiratory sensitization	: No data available
Skin sensitization	: No data available
Germ cell mutagenicity	: No data available
Carcinogenicity	: IARC Group 3 (Not classifiable as to carcinogenicity to humans)
Reproductive toxicity	: No data available
Specific organ toxicity (single exposure)	: No data available
Specific organ toxicity (repeated exposure)	: Rats were fed 2% polystyrene in 5% diet and had no effect.
Aspiration hazard	: No data available

※This reference material is stable under normal conditions, and there is no danger of the noxious additive ingredient being eluted. However, when handling this reference material under special conditions, such as high temperatures, etc., safety precautions for appropriate use are recommended.

12. Ecological Information

Degradability, concentration	• No data available
Bioaccumulation	• No data available
Ecotoxicity	• No data available

13. Disposal Considerations

- No data available
-

14. Transport Information

UN number	: Not available
UN classification	: Not available
Name	: -
Container class	: -
Marine pollutant	: Not applicable
Precaution	: Transport this reference material carefully while keeping it away

from direct sunlight and fire and preventing accidental release due to falling, being knocked over, etc.

15. Regulatory Information

- No applicable legislation

- ◎ **This SDS was originally prepared for the use of the reference material in Japan, and therefore Section 15 “Regulatory Information” covers only those laws and regulations which are enacted and enforced in Japan. In case of using this reference material outside of Japan, it is necessary to refer to and apply relevant laws and regulations of the country in which it is 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.
