

CANON OPTRON INC.

SDS Number: ES04

Product Name: SiO₂ (Fused)

SAFETY DATA SHEET

rev. 7.2 Date of Issue 2014/9/1
Revised Date 2022/10/3

SECTION 1 Chemicals and company identification

Product name	SiO ₂ (Fused)
Product code	ES04
Company name	CANON OPTRON INC.
Address	1744-1, Kanakubo, Yuki-shi, Ibaraki-ken, 307-0015 Japan
Section name	Sales Department
Telephone number	+81-296-21-3700
Fax number	+81-296-21-3770
Emergency telephone number	+81-296-21-3700
Use	Vacuum deposition material

SECTION 2 Hazards identification

GHS Classification (A classification by JIS Z 7252 "classification methods such as chemical substances based on GHS")

No data available

Label element

hazard Pictograms	No data available
Signal word	No data available
Dangerous goods hazard information	No data available

Precautionary statement

【Safety measures】	Obtain special instructions before use. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume/gas/mist/vapours/spray.
【First-aid measures】	If swallowed: Call a poison center or doctor/physician if you feel unwell. Rinse mouth. If in eyes: Rinse cautiously with water for several minutes.Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call poison center or doctor/physician
【Storage】	Store in a well-ventilated place, keep container tightly closed. Store locked up.
【Disposal】	Dispose of contents/container in accordance with national regulations.
【Other hazards】	-

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SECTION 3 Composition/information on ingredients

Substance/Mixture	Substance
Chemical name	<i>Silica, vitreous</i>
Chemical formula	<i>SiO₂ (Fused)</i>
Concentration or concentration range	99.9<
CAS No.	60676-86-0
TSCA Inventory	<i>Silica, vitreous</i>
EINECS number	<i>262-373-8</i>
Radioactive information	Radioactive substances are not used as the material. Therefore, there is no reason that ionizing radiation would be generated.

SECTION 4 First aid measures

Inhalation	Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.
Skin contact	Take off immediately all contaminated clothing. Rinse affected areas with water/shower. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: : Get medical advice/attention.
Eye contact	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.
Ingestion	Rinse mouth. Get medical advice/attention.
Most important symptoms and effects, both acute and delayed	No data available
Protection of first aiders	Rescuers, wear suitable protective equipment as the situation demands.
Special precautions for physicians	No data available

SECTION 5 Firefighting measures

Suitable extinguishing media	It uses a water mist, dry chemicals, fire foam, carbon dioxide depending on neighboring fires.
Unsuitable extinguishing media	Because a fire might spread through the outskirts, It avoid direct stick irrigation.
Specific hazards	In the case of fires, a toxic decomposition product may occur.
Specific extinguishing methods	It performs the fire fighting from windward. Restrict access to the area around the fire location to persons other than those involved with the fire. If it is not dangerous to do so, move the container out of the fire area.
Special protective equipment for firefighters	On the occasion of fire extinguishing work, it wears appropriate personal protective equipment and rescue suit.

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SECTION 6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures	It prohibits the entrance except the person concerned. The worker wears appropriate personal protective equipment (in item of "8. revelation prevention and protection measures" reference) and avoids eyes, contact and inhalation to skin.
Environmental precautions	It avoids an outflow to the environmental average of the product to have possibilities to influence neighboring environment.
Methods and material for containment and cleaning up	It collects it in sky containers as if sweeping the scattered thing, and gathering you, or being able to absorb it with a vacuum sweeper, and from scattering not pitching a camp. The prohibition of handling and eating and drinking in neighboring of the storage area. It prevents the inflow to a drainage, a sewer, a basement or the closedown place.
Secondary disaster prevention measures	No data available

SECTION 7 Handling and storage

Precautions for safe handling	
Technical measures	Take measures for equipment as described in "8. Exposure controls/personal protection" and wear protective equipment.
Safety handling precautions	It prevents you from producing dust.
Avoidance of contact	Refer to "10. Stability and reactivity."
Hygiene measures	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
Conditions for safe storage, including any incompatibilities	
Safe storage conditions	The storage area shall be equipped with the necessary lighting and ventilation equipment to store or handle dangerous or hazardous substances. It avoids direct rays of the sun and keeps it in the cool and dark space.
Safety packaging material	It uses the container which it can seal up without damage and the leak.

SECTION 8 Exposure controls/personal protection

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Permissible concentration

ACGIH

TLV-TWA: 0.1 mg/m³
 (respiratory)
 (amorphous silica)
 (2015 version)

Appropriate engineering controls

In the work shop which dust produces, it uses a device, an apparatus sealed up by all means or a local ventilator.

Individual protection measures,
 such as personal protective
 equipment

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Respiratory protection	Dustproof mask
Hand protection	Protective gloves
Eye/face protection	Dust-proof glasses
Skin protection	Protective clothing

SECTION 9 Physical and chemical properties

Appearance

Physical state	Solid
Form	Pellets, granules
Colour	Transparency
Odour	None

SiO₂ (Fused)

Melting point/freezing point	1610°C
Boiling point or initial boiling point and boiling range	2,503° C (760 mmHg) (CAS No.: 7631-86-9) (NITE-CHRIP (2015))
Flammability	No data available
Upper/lower flammability or explosive limits	Noninflammability (ACGIH (7th,2001))
Flash point	Noninflammability (ACGIH (7th,2001))
Auto-ignition temperature	Noninflammability (ACGIH (7th,2001))
Decomposition temperature	No data available
pH	As synthetic amorphous silica (a CAS number: 7631-86-9): 4-9 (SIDS (2006))
Kinematic viscosity	No data available
Solubility	
Water	Insoluble
Other solvents	No data available
Partition coefficient: n-octanol/water	No data available
Vapour pressure	0 mmHg(20°C) (HSFS (2002))
Density and/or relative density (Density)	2.2
Relative vapor density	No data available
Particle characteristics	No data available
Other information	No data available

SECTION 10 Stability and reactivity

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Reactivity	<i>It is very stable for heat</i>
Chemical stability	<i>No data available</i>
Possibility of hazardous reactions	<i>No data available</i>
Conditions to avoid	<i>No data available</i>
Incompatible materials	<i>No data available</i>
Hazardous decomposition products	<i>No data available</i>

SECTION 11 Toxicological information

SiO₂ (Fused)

Acute toxicity(oral)	<i>No data available</i>
Acute toxicity(dermal)	<i>No data available</i>
Acute toxicity (Inhalation: Gases)	<i>Solid (GHS definition)</i>
Acute toxicity (Inhalation: Vapours)	<i>Solid (GHS definition)</i>
Acute toxicity (Inhalation: Dusts and mists)	<i>No data available</i>
Skin corrosion/irritation	<i>No data available</i>
Serious eye damage/irritation	<i>No data available</i>
Respiratory or skin sensitization	<i>No data available</i>
Germ cell mutagenicity	<i>No data available</i>
Carcinogenicity	<i>This substance has no information on carcinogenicity either in humans or in experimental animals. But the carcinogenicity classification result Group 3 in IARC for amorphous silica (IARC 68 (1997)) is judged to be applicable because this substance belongs to amorphous silica. Namely, it was classified as "Classification not possible" in this hazard class.</i>
Reproductive toxicity	<i>No data available</i>
Specific target organ toxicity(single exposure)	<i>No data available</i>
Specific target organ toxicity(repeated exposure)	<i>No data available</i>
Aspiration hazard	<i>No data available</i>
Other information	<i>No data available</i>

SECTION 12 Ecological information

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Toxicity

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Hazardous to the aquatic environment Short-term(acute)	No data available
Hazardous to the aquatic environment Long-term(chronic)	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Hazard to the ozone layer	No data available
Other adverse effects	No data available

SECTION 13 Disposal considerations

Waste treatment methods	Process is contracted to industrial waste disposers who received approval of a prefectural governor.
Contaminated container and contaminated packaging	The container is recycled after being cleaned, or is appropriately processed according to the standards of related laws and regulations. When disposing of empty containers, the contents should be completely removed.

SECTION 14 Transport information

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International regulation

UN number	Not applicable
UN proper shipping name	Not applicable
UN classification	Not applicable
Transport hazard class	Not applicable
Packing group	Not applicable
Hazardous to the aquatic environment	No data available
Maritime transport in bulk according to IMO instruments	No data available
Japanese laws and regulations	Land regulation information Not applicable Maritime regulatory information non-hazardous materials Aviation regulatory information non-hazardous materials
Special precautions for users	Requires retention of yellow card when transporting. When transporting, protect from direct sunlight and take on cargo without breakage of container, corrosion and leakage. Do not stack heavy good thereupon.
Special Provisions	—

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SECTION 15 Regulatory information (Japan)

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Occupational Safety and Health Law	<i>Not applicable</i>
PRTR Law	<i>Not applicable</i>
Poisonous and Deleterious Substances control Law	<i>Not applicable</i>
Labor Standards Act	<i>Not applicable</i>
Chemical substances control Law	<i>Not applicable</i>
Fire fighting Law	<i>Not applicable</i>
Air Pollution Control Act	<i>Not applicable</i>
Water Pollution Prevention Act	<i>Not applicable</i>
Water Supply Act	<i>Not applicable</i>
Sewerage Act	<i>Not applicable</i>
Marine Pollution Prevention Law	<i>There is it in the case of an application or an application</i>
Waste Management and Public Cleansing Act	<i>Not applicable</i>
Note	Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

SECTION 16 Other information

The Safety Data Sheet (SDS) has been prepared based on currently available materials, information and data, and may be revised based on new information. Further, the important points in the SDS are made for the purpose of normal handling.

When handling the user product in a specialized manner, take the appropriate safety measures for the application or method.

Further, Canon Optron Inc. has paid sufficient attention to the described contents of the SDS, but does not guarantee the accuracy of its contents.

The SDS prepared by our company includes all findings from our investigation for reference. Not applicable to all items listed.

Literature Reference

[WEB site]

National Institute of Technology and Evaluation Homepage

Japan Advanced Information Center of Safety and Health Homepage

Ministry of Health, Labour and Welfare Homepage

[Regulatory review Tools]

ezCRIC (Japan Chemical Database Ltd)