
SHIN-ETSU KASEI KOGYO CO., LTD.
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MATERIAL SAFETY DATA SHEET

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1. The Chemical Substance and Company information

Name of Chemical substance : Silica gel A-type , B-type
Company's name : SHIN-ETSU KASEI KOGYO CO.,LTD.
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Recommended use and restriction of use

- Recommended uses :
- Household uses : Moisture exclusion for food items, drugs and medicines,
instruments, clothes, and shoes.
 - Industrial uses : Moisture exclusion for precision machines,
and electric components.
 - Commercial uses : Dehumidification for air and various gasses.
Dehydration for liquid such as organic solvent and
dielectric oil.
 - Other uses :Paving sand for pet animals
Aroma retention
Cigarette filter
dried flowers
export packing

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2. Hazards identification

GHS classification

Physicochemical hazards

Explosives	Out of classification
Flammable / flammable gas	Out of classification
Flammable / flammable aerosol	Out of classification
Oxidizing gas	Out of classification
Compressed gas	Out of classification
Flammable liquid	Out of classification
Flammable solid	Out of category
Self-reactive substance	Out of classification
Pyrophoric liquid	Out of classification
Pyrophoric solid	Out of category
Self-heating substance	Out of category
Substance which, in contact with water, emits flammable gases	Out of category
Oxidizing liquid	Out of classification
Oxidizing solid	Cannot be classified
Organic peroxide	Out of classification
Corrosive to metal substance	Cannot be classified

Health hazards

Acute toxicity(ingestion)	Out of category
Acute toxicity(skin)	Out of category
Acute toxicity(inhalation / gas)	Out of classification
Acute toxicity(inhalation / vapor)	Out of classification
Acute toxicity(inhalation / dust)	Cannot be classified
Acute toxicity(inhalation / mist)	Cannot be classified
Skin corrosive / irritation	Out of category
Serious damage / eye irritation	Category 2B
Respiratory sensitizer	Cannot be classified

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Skin sensitizer	Cannot be classified
Generative cell mutagen	Out of category
Carcinogen	Out of category
Reproductive toxicity	Cannot be classified
Specific target organ systemic toxicity (single exposure)	Cannot be classified
Specific target organ systemic toxicity (repetition exposure))	Cannot be classified
Aspiration hazards	Cannot be classified
Environmental hazards	
Hazardous to the aquatic environment acute toxicity	Cannot be classified
Hazardous to the aquatic environment chronic toxicity	Cannot be classified
Label elements	
Pictogram or symbol	Non
Signal Word	Warning
Hazard statement	Irritation to eyes
Precautionary statement	

【Precaution】

- *With a Personal protection and ventilating device if necessary,
and avoid exposure.
- *Do not inhaling dust.
- *Wash a hand well after handling.

【Correspondence】

- *Contact a doctor if irritation developed
- *Eye contact :
Immediately flush eyes with plenty of water for at least 15 minutes,
lifting lower and upper eyelids occasionally. Get medical attention
immediately.

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【Storage】

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage.

【Disposal】

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. state and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Country / area information

3. Composition / Information on Ingredients

Chemical substance

Chemical name or generic name	:Amorphous silicon dioxide
Alias	:Silica Gel Anhydrous Silicic acid
Chemical formula	:SiO ₂
CAS registered No.	:7631-86-9
Official gazette No.	:(1)-548
Impurities contributing to a classification and stabilization addition	:no information
A purity or a range	:100%

4. First Aid Measure

Inhalation	:Remove to fresh air. Get medical attention for any breathing difficulty.
Skin contact	:Wash exposed area with soap and water. Get medical advice if irritation develops.

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Eye contact :Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Ingestion :Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

Expected acute symptoms and late symptoms Inhalation :A cough

The most important sign and symptoms

5. Fire Fighting Measure

Digestive :This product itself dose not burn.
Use appropriate digestive depends on the surrounding fire circumstances.

Special hazards

Special fire extinguishing method

Protection of a person to extinguish a fire

:Wear the appropriate air respiratory equipments or protection clothes for chemistry at surrounding fires in the occasion of fire extinguishing work.

6. Accidental Release Measure

Instructions for the human body,

Protective equipment and emergency step

:Isolate appropriate distance promptly as a leak area in all directions.

Prohibit an entrance except the person concerned.

A worker wears an appropriate protection and to avoid contact or inhalation to eyes and skin.

(ref. "8.Exposure Control / Personal Protection")

Instructions for the environment

:Be careful of not to cause influence to the environment by letting it

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drain to the rivers.

Do not discharge it in environment.

Collection, neutralization

:Collect leak things and into an empty container and dispose them later.

Containment and purification method / machine

:Stop a leak if not dangerous.

Preventive measures against second disaster

:Clean up diligently, it is possible to slip if it is left on the floor.

7. Handling and Storage

-Handling

Technical measures :Do the equipment measures in the "8.Exposure control/
Personal protection" and wear the protection.

Local/general ventilation

:Do the local and general ventilation in the
"8.Exposure Control/Personal Protection".

Safe handling instructions

:Take precautions a static electric spark
Do not contact inhalation and swallow.
Perform ventilation for exhaust to keep the atmospheric
concentration lower than exposure limit.
Wash a hand well after handling.
Do not eat, drink and breath when you handle it.

Contact evasion

:Refer to the "10.Stability and reactivity".

-Storage

Technical Measures :Keep in a tightly closed container, stored in a cool and dry
ventilated area. Protect against physical damage.

Composite hazard substance : Refer to the "10.Stability and reactivity.

Storage condition :Store it up in a cool and good place of ventilation to avoid
direct rays of the sun and rainwater.

Container and packaging materials

:There is no regulation of a packaging and container.
It is necessary to put it in tightly closed container which is
not breakable.

8. Exposure Control / Personal Protection

Standard control concentration

Permissible concentration

(an exposure limit value / a biological exposure index)

: Japan industrial hygiene society(2005)

Total dust

8mg/m³

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Inhalation-related dust 2mg/m³
 ACGIH(2005) TLA-TWA 10mg/m³

Equipment measure :It would be better install washing eyes device and a safety shower in a workplace to store this material or handle it. install a ventilating device to keep an air pollutant less than permissible concentration when dust occurs by a process.

Protective equipment

Protection for respiratory : Wear the appropriate respiratory protection.

Protective for hands :use the appropriate protection gloves if necessary.

Protection for eyes :use the personal protection for eyes if necessary. Protection for skin and body: use the appropriate protection suit, mask if necessary.

Hygiene measure :Wash a hand well after handling.

9. Physical and Chemical Properties

Physical State/Shape/Color... : Free flow white spherical powder.
 Odor : Odorless
 pH : 3.0~8.0(5% slurry)
 Melting Point : 1610 °C
 Boiling Point : 2230 °C
 Ignition Point : Non-inflammability
 Explosion range : No data
 Vapor Pressure : 10mmHg(1732 °C) conversion value1333Pa(1732 °C)
 Vapor Density(Air=1) : No data
 Specific Gravity : 2.2
 Solubility : Insoluble in water
 Octanol /water distributed coefficient : No date
 Pyrophoric temperature : Non-inflammability
 Decomposition temperature : No data
 Stinky threshold : No data
 Evaporation rate(BuAc=1) : No data
 Combustion characteristics(solid/gas) : No data
 Viscosity : No data

10. Stability and reactivity

Stability : Stable under ordinary of use (ambient temperature)
 Hazard reaction possibility : React with hydrogen fluoride
 Condition to avoid : Contact to composite hazard substance
 Composite hazard substance : Hydrogen fluoride
 Hazard resolution substance : Non

11. Toxicological information

-Acute Toxicity

Ingestion :

LD₅₀ value of ingestion administration test with IUCLID mouse was calculated

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by based on a GHS classification manual and it is out of division because the value was larger than 5000mg/kg.

Skin :

It is out of division by LD₅₀ value of a skin administration test with IUCLID mouse was larger than 5000mg/kg.

Inhalation(gas) :

It is out of classification object because it was solid a GHS definition.

Inhalation(vapor) :

It is out of classification object because vapor pressure in normal Temperature was very low.

Inhalation(dust/mist) :

It can not be classified because there was no data.

-Skin corrosive / irritation : It is out of division by the judgment of there was no Irritation at the examination with IUCLID rabbit.

-Serious eye damage / irritation : It is division 2B because it described there was the weak irritation at the examination with IUCLID rabbit.

-Respiratory / skin sensitizer : It can not be classified there was do data.

-Generative cell mutagenic property: It is out of division by a marrow nebenkern examination of a mouse of in vivo variation abiogenesis was negative and an Ames test which was an in vitro experiment was negative.

-Carcinogen : It is out of division by IARC is 3.

-Reproduction toxicity : It can not be classified because there was no data.

-Specific target organ systemic toxicity (single exposure) : It can not be classified.

-Specific target organ systemic toxicity (repetition exposure) : It can not be classified.

12. Environmental influence information

Hazardous to the aquatic environment acute toxicity

It can not be classified because there was no data.

Hazardous to the aquatic environment chronic toxicity

It can not be classified because there was no data.

13. Disposal Considerations

Leftover waste

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility.

Processing use or contamination of this product may change the waste management options. state and local disposal regulations may differ from federal disposal regulations. Disposal of container and unused contents in accordance with federal, state and local requirements.

A pollution container and packing

Clean a container and recycle it or do appropriate disposal according to the

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law concerned and a standard of a local government.
When an empty container is disposed, completely remove contents.

14. Transportation Information

International regulation

Marine regulation information Non-hazardous materials

Air regulation information Non-hazardous materials

Domestic regulation

Land regulation information Non-pertinence

Marine regulation information Non-hazardous materials

Air regulation information Non-hazardous materials

Special safety measures

On the occasion of the transportation, load it to avoid direct rays of the sun, the damage of a container, corrosion and leaking and be surely prevention of collapse of cargo. Do not pile the heavy goods up on the top.

15. Regulatory Information

The Occupational Safety and Health Act

The hazardous materials which should be notified of names.

(Law 2 of article 57, the enforcement law 2 separate table article 9 of article 18)

(A government ordinance number article 312: Silica)

Quasi drug raw materials standard 2006

16. Other Information

SHIN-ETSU KASEI KOGYO CO., LTD provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

References

IUCLID(2000)

IARC(1997)

Industrial hygiene society advice(2005)

ACGIH-TLV(2005)

A disaster example No information