### FUJI SILYSIA CHEMICAL LTD.

2-1846 KOZOJI-CHO, KASUGAI, AICHI, 487-0013 JAPAN

FAX NO.

#### MATERIAL SAFETY DATA SHEET

No. CA - 001 - 200 - E

Revised date: June 10, 2010 First edition: July 15, 2002

#### 1. The Chemical Substance and Company Information

Names of chemical substance CARiACT

Product name P Series (P-10 / P-10ZX )
Company's name Fuji Silysia Chemical Ltd.

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#### Recommended use and restriction of use

Recommended use

Catalyst carrier

Lmitation of usage

Health hazards

#### 2. Hazards identification

#### GHS classification

Physicochemical hazards

Flammable solids not classified
Pyrophoric solids not classified
Self-heating substances and mixtues not classified

Substances and mixtures which, in

contact with water ,emitflammable not classified

gases

Oxidizing solids not classified
Acute toxicity -oral not classified
Acute toxicity -dermal not classified

Acute toxicity -inhalation : dust classification not possible Acute toxicity -inhalation : mist classification not possible

Skin corrosive / irritation not classified
Eye damage / irritation category 2B

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Sensitization-respiratory classification not possible Sensitization-skin classification not possible

Germ cell mutagenicity not classified Carcinogenicity not classified

Toxic to reproduction classification not possible Specific target organ systemic toxicity classification not possible

(single exposure)

Specific target organ systemic toxicity classification not possible

(repeated exposure)

Aspiration toxicity classification not possible

Environmental hazards

Hazardous to the aquatic environment- acute hazard classification not possible

Hazardous to the aquatic environment chronic hazard2

classification not possible

Label elements

Pictogram or symbol Non
Signal Word Warning

Hazard statement Cause eye irritation

Precautionary statement

[Precaution]

[Correspondence]

If in eyes:

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.

Wash hands thoroughly after handling.

[Storage]

[Disposal]

Country / area information

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3. Composition / Information on Ingredients

Chemical characterization Single substance

Chemical name or generic name Amorphous silico dioxide

Alias Silica Gel

Chemical formula SiO<sub>2</sub>

CAS registered No. 7631-86-9
Official gazette No. (1)-548
A purity or a range 100%

4. First Aid Measure

IF INHALED Remove to fresh air and keep at rest in a position comfortable

for breathing.

Get medical advice/attention if you feel unwell.

IF ON SKIN Wash exposed area with water.

Wash contaminated clothing before reuse.

If skin irritation or redness occurs, get medical advice/attention.

IF IN EYES Do not rub eyes.

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.

IF SWALLOWED Vomit up linse mouth with clean water well.

Get medical advice/attention if you feel unwell.

5. Fire Fighting Measure

Extinguish This material is not combustible.

Use extinguish agents appropriate for surrounding fire.

Special hazards

Special fire extinguishing method Protection of a person to extinguish

a fire Wear respiratory protection or chemical protective clothing

for surrounding fire.

6. Accidental Release Measure

Instructions for the human body,

Protective equipment and emergency step

Large spill :

Isolate hazard area and deny entry to unnecessary personel.

Wear appropriate protection to avoid contact/inhalation to eyes and

skin.

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

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Instructions for the environment

Do not discharge it to environment.

Collection, neutralization

Vacuum spillage and into an empty container and dispose them later  $\epsilon$ 

an industrial waste.

Preventive measures against second disaster

Residue on the floor may cause slip, clean up diligently.

#### 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 precautionary measures against static discharge.

Do not contact, inhale or swallow.

Perform ventilation for exhaust to keep the atmospheric

concentration lower than exposure limit.

Wash thoroughlyafter handling.

Contact evasion Refer to the "10. Stability and reactivity ".

Storage

Technical Measures Instal lighting and ventilation to store and handle.

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

Storage condition Store in a cool/well-ventilated place to protect from sunlight and

rainwater.

Container and packaging materials

Store it in tightly closed container which is

not breakable.

#### 8. Exposure Control/ Personal Protection

Standard control concentration No setting

Permissible concentration:

(an exposure limit value/ a biological exposure index)

ACGIH(2009)

TLV-TWA

No setting

Equipment measure Install washing eyes device 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.

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Protective equipment

Protection for respiratory Wear appropriate respiratory protection.

Protection for hands Wear appropriate protective gloves.

Protection for eyes Use personal eye protection .

Protection for skin and body Use the apropriate protection suit and mask..

Hygiene measure Wash hands thoroughly after handling.

#### 9. Physical and Chemical Properties

Physical State/Shape/Color... Soid / Spherical fine particle / White

Odor Odorless

pH  $5.0 \sim 8.0 \, (5\% \, \text{slurry})$ 

Melting Point  $1610^{\circ}$ C Boiling Point  $2230^{\circ}$ C

Flash point Non-flammable
Pyrophoric temperature Non-flammable
Explosion range Non-flammable
Vapor Pressure 10mmHg(at 1732°C)

[Conversion value 1333Pa(  $1732 \,^{\circ}$ C )]

Vapor Density (Air =1) No data

Specific Gravity True Specific Gravity 2.2 Solubility Insoluble in water

Octanol / water distributed coefficient No data
Decomposition temperature No data

#### 10. Stability and Reactivity

Stability Stable under ordinary conditions of use(ambient temperature)
Hazard reaction possibility On reacting with hydrogen fluoride, forms silicon fluoride(gas).

Condition to avoid Contact with composite hazard substance

Composite hazard substance Hydrogen fluoride

Hazard resolution substance Non

#### 11. Toxicological Information

Acute Toxicity

Oral Silicon dioxide : Rat LD50=7800mg/kg(average) IUCLID(2000)

Dermal Silicon dioxide : Rabbit LD50>5000mg/kg IUCLID(2000)

Skin corrosion / irritation Silicon dioxide : Rabbit not irritating IUCLID(2000)

Serious eye damage / Silicon dioxide: Human slightly irritating IUCLID(2000)

irritation

Respiratory / skin sensitizer Not Available

Germ cell mutagenicity Silicon dioxide: Negative in vivo micronucleus test using bone

marrow of mice (JJFC2003)

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Carcinogenivity Silicon dioxide: Group 3 IARC(2006)

Toxic to reproduction toxicity Not Available

Specific target organ systemic toxicity

(single exposure) Not available.

Specific target organ systemic toxicity

(repeated exposure) Not available

#### 12. Environmental influence information

Hazardous to the aquatic environment- acute hazard

Not available

Hazardous to the aquatic environment-chronic hazard2

Not available

#### 13. Disposal Considerations

Leftover waste The disposal of the leftover waste has to be carried out in

accordance with the legal requirements.

A pollution container and packing

Clean a container and recycle it, or

appropriate disposal must be made according to official regulations. When an empty container is disposed, completely remove contents.

#### 14. Transportation Information

International regulation

Marine regulation information Non-hazardous material
Air regulation information Non-hazardous material

#### 15. Regulatory Information

#### 16. Other Information

Fuji Silysia Chemical 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.

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#### References

IUCLID (2000)
IARC (2006)
ACGIH-TLV (2009)
NITE CHRIP data base
GHS Classification Guidance of Enterprises(March, 2009)
Ministry of Economy, Trade and Industry
JJFC Vol.10(3) 2003

A disaster example

No information

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