

## SAFETY DATA SHEET

Revision Date 4 Dce. 16, 2019  
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Date Prepared Sep. 1, 2016

## 1. Chemical Product &amp; Company Information

Product Name : SARCON SPG-20B  
Manufacture's Name : Fuji Polymer Industries Co., Ltd.  
Address : 175 Kajiyashiki-cho Toyota-shi Aichi, Japan  
Telephone Number : +81-565-65-2121  
(Aichi Plant / Quality Assurance Dept.)

## 2. Hazards Identification

GHS Classification :  
Physical hazards : Classification not possible  
Health hazards :  
Acute toxicity - Oral : Not classified\*  
Acute toxicity - Dermal : Not classified\*\*  
Carcinogenicity : Category 1A  
Specific target organ toxicity - single exposure : Category 1(Respiratory system)  
: Category 3(Respiratory tract irritation)  
Specific target organ toxicity - repeated exposure : Category 1(Lung:inhalation, Respiratory system, Kidney)  
Environmental hazards : Classification not possible

※ About Physical hazards, Health hazards and Environmental hazards : The items except the above are "Not applicable" and "Classification not possible" at present.

\*) It was determined by Acute toxicity value from a known ingredient(about 80%).

\*\*) It was determined by Acute toxicity value from a known ingredient(about 10%).

## GHS Label Elements

Pictogram :



Signal Word : danger

Hazard Risk Statement : H335 May cause respiratory irritation  
H350 May cause cancer.  
H370 Causes damage to organs.(Respiratory system)  
H372 Causes damage to organs through prolonged or repeated exposure.(Lung: inhalation, Respiratory system, Kidney)

## Precautionary Statement

It must be considered that there is no inhalation of dust. So please handle it with the following points in mind.

Prevention : Do not breathe dust.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Wear protective gloves/protective clothing/eye protection/face protection.Response : Specific treatment.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
IF exposed or concerned: Call a POISON CENTER or doctor/physician.  
IF exposed or concerned: Call a POISON CENTER or doctor/physician if you feel unwell.  
IF exposed or concerned: Get medical advice/attention.  
IF exposed or concerned: Get medical advice/attention if you feel unwell..

Storage : In order to prevent any characteristics alteration, keep it away from direct sunlight, water leakage, moisture, and heat.

Disposal : Dispose of contents/container by outsourcing to an authorized waste disposer approved by the local prefectural governor.

Other Hazard : No information

**3. Composition/Information on Ingredients**

Chemical characterization : Mixture

Generic Name : Silicone Rubber

**Ingredients and Contents**

Component Name	Content	CAS No.	METI Number
Silicone polymer	5-15%	—	
Silica	15-25%	—	
Aluminum oxide	65-75%	1344-28-1	(1)-23
Magnetite	<0.1%	1317-61-9	(1)-357
Other ingredients	<0.5%	—	

Impurities and stabilizing additives which contributing classification : No information

**4. First Aid Measures**

In Case of Inhalation : Remove person to fresh air and keep comfortable for breathing.  
Get medical advice/attention.

In Case of Skin Contact : Wash with plenty of soap and water.  
If skin irritation occurs, it get medical advice/attention.

In Case of Eye Contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present  
and easy to do. Continue rinsing.  
If eye irritation persists, it get medical advice/attention.

In Case of Ingestion : Rinse mouth. Immediately spit it out .  
Get medical advice/attention.

Important Symptoms and Hazard effects : No information

Personal Protection for First Aid or Rescue Personnel :  
The rescuer wears a tool for protection such as rubber gloves, sealing up goggles.

Note to physicians : No information

**5. Fire Fighting Measures**

Suitable Extinguishing Media : We recommend any Dry chemical, Carbon dioxide(CO<sub>2</sub>), Foam, Water spray, Dry sand.

Unsuitable Extinguishing Media : Straight water injection

Specific Hazards : Fire may produce irritating and/or toxic gases.

Specific Fire Fighting : Prohibit the entrance except the person concerned to the outskirts of the fire scene.  
The fire fighting should be done from the windward side. Use an appropriate fire  
extinguishing method depending on a surrounding.

Protection for Fire-fighter : Wear appropriate protective equipment(e.g., gloves, goggles, mask) when fighting fires.

**6. Accidental Release Measures**

Personal Precautions, Protective Equipment and Emergency Procedures :  
Wear appropriate protective equipment(e.g., gloves, goggles, protective clothing) when cleaning up spills.

Environmental Precautions :

Be careful not to be exhausted in a river, the sewer, the soil.

Methods and Materials for Containment and Cleaning up : Gather the material.  
Wipe off with waste cloth and duster.

Prevention of secondary hazards :

Remove a thing becoming the nearby firing source immediately.

Set up a fire extinguisher, when fire it.

**7. Handling and Storage**

Handling :	
Technical Measures	: Implement the measures mentioned in "8.Exposure Controls/Personal Protection". Wear appropriate protective equipment.
Local and General Ventilation	: In case of powder dust happens, install the local or general ventilation.
Safe Handling Advice	: Keep away from heat/hot surfaces/sparks/open flames. In case of powder dust happens, do not inhale it. Avoid contact with eyes and the skin. Wash hands thoroughly after handling.
Storage :	
Technical Measures	: Equip with adequate sunlight/lights and ventilation in a storing place .
Storage Conditions	: In order to prevent any characteristics alteration, keep it away from direct sunlight, water leakage, moisture, and heat. Store in a dry, well-ventilated place.
Substances to Avoid Mixing	: Refer to precautions indicated in "10. Stability and Reactivity".
Packaging Material	: In order to prevent from deterioration, use packing without any damage.

**8. Exposure Controls/Personal Protection**

Standard Control Notification	: Not established.
Industrial Hygiene Standards :	
Japan Association on Industrial Health Guideline :	
Aluminum oxide	(Inhalable dust) : 0.5 mg/m <sup>3</sup> , (Total dust) : 2 mg/m <sup>3</sup>
Silica	Crystalline silica (Inhalable dust) : 0.03 mg/m <sup>3</sup>
ACGIH :	
Aluminum oxide	ALUMINUM METAL AND INSOLUBLE COMPOUNDS, RESPIRABLE FRACTION TLV-TWA = 1 mg/m <sup>3</sup>
Silica	SILICA, CRYSTALLINE- $\alpha$ -QUARTZ, RESPIRABLE FRACTION TLV-TWA = 0.025 mg/m <sup>3</sup>
Engineering Measures	: Risk of exposure is low. Provide hand-washing, washing eyes and physical washing facilities in the place where the product is handled near, if necessary. In case of powder dust happens, perform local or general ventilation.
Personal Protective Equipment	
Respiratory protection	: Wear protection mask and a tool for protection for breathing, if necessary.
Hand protection	: Impermeable protection gloves, if necessary.
Eye protection	: Protection glasses, goggles type protection glasses, if necessary.
Skin protection	: Wear protective clothing or protection apron, if necessary.
Hygiene Measures	: Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Check the tool for protection by a tool for protection check list regularly.

**9. Physical and Chemical Properties**

Physical State	: Form	: Putty
	: Color	: Light Gray
Odor	: none	
pH	: Not determined.	
Melting Point/Freezing Point	: $\geq 100^{\circ}\text{C}$	
Boiling point, Initial Boiling Point, and Boiling Range	: Not determined.	
Flash Point	: $>200^{\circ}\text{C}$ (Seta Closed-cup)	
Autoignition Temperature	: Not determined.	
Combustion or explosion limit(Lower/Upper)	: Not determined.	
Vapor Pressure (mmHg)	: Not determined.	
Vapor Density (AIR=1)	: Not determined.	
Specific Gravity	: 2.8	
Solubility (Water)	: Insoluble	
Octanol/water partition	: Not determined.	

Decomposition Temperature : Not determined.  
Other information : Oxygen index : 55.0

## 10. Stability and Reactivity

Reactive and Chemical Stability : On the normal handling condition, it is stable.  
Possibility of Hazardous Reactions : None.  
Conditions to Avoid : Avoid substance to avoid mixing/contact  
Substance to Avoid Mixing/Contact With : Strong oxidising agents  
Hazardous Decompositions Products : Silicone polymer: If it is heated to >150 degrees C, trace quantities of formaldehyde may be released, and adequate ventilation is required.

## 11. Toxicological Information

We believe that harmful health effects do not occur with the recommended usage method, but below we describe the raw materials used.

Acute Toxicity (oral) : Aluminum oxide rat LD50 > 5000mg/kg  
Silicone polymer rat LD50 > 5000mg/kg  
Magnetite rat LD50 > 5000mg/kg bw

Acute Toxicity (dermal) : Silicone polymer rabbit LD50 > 2000mg/kg

Acute Toxicity (inhalation: gas) : Not applicable  
Acute Toxicity (inhalation: vapor) : No information  
Acute Toxicity (inhalation: dust/mist) : No information

Skin Corrosion/Irritation :  
Aluminum oxide No irritation in rabbit skin irritation test (OECD TG404)(test period unknown)  
Magnetite No irritation in rabbit skin irritation test (OECD TG404)(test period unknown)

Serious Eye Damage/Irritation :  
Aluminum oxide No irritation in rabbit eye irritation test (OECD TG405)(test period unknown)  
Magnetite No irritation in rabbit eye irritation test (OECD TG405)(test period unknown)

Respiratory Organs Sensitization or Skin Sensitization :  
Magnetite There is no skin sensitization in the examination using the guinea pig(Maurer optimisation test).

Germ Cell Mutagenicity :  
Aluminum oxide  
It was negative with or without metabolic activation in Ames test using salmonella. When it did not become metabolic activation in genetic exchange test using bacillus subtilis, it was negative.  
Silica  
It was negative bone marrow micronucleus test of the in vivo mutagenicity mouse(IARC68, 1997; CICAD24, 2000; DFGOT vol.14, 2000). Thus, assumed it Not classified.  
Magnetite  
It was negative with or without metabolic activation in Ames test using salmonella. It was negative in somatic cell mutation assay using chinese hamster lung fibroblast. It was negative in chromosome aberration test using chinese hamster lung fibroblast.

Carcinogenicity :  
Aluminum oxide  
Because it is classified in A4 in ACGIH, assumed it "Not classified". In addition, in the exposure test that inhaled aluminum oxide fiber for 86 weeks to a rat, fibrosis and oncogenesis were not seen. In the intrapleural administered test aluminum oxide fiber(whisker)of 4-types,The increase in pleura sarcoma incidence was seen. The oncogenesis was not seen in two other fiber and non-fibrillar test substance.  
Silica  
Because classified IARC68(1997) in 1, NTP RoC(11th, 2005) in K and Industrial hygiene academic society recommendation(2005) in 1, assumed it Category 1A.

Reproductive Toxicity :  
Aluminum oxide  
In the examination that gave bait including the aluminum to a pregnancy rat, the influence was not seen in an embryo, the death rate of fetuses, the number of the litters, the weight and size of young rat.

Specific Target Organ. Systemic Toxicity (Single Exposure) :  
Aluminum oxide  
Classified it in Category 3 (Respiratory tract irritation) from a mention of upper respiratory tract irritation (ICSC (2000)). When inhale it at high density, it was confirmed cough, pant, respiratory tract irritation by the physical action, unpleasant deposit of nasal meatus and the aggravation of the symptom in the Homo sapiens having ventilatory impairment.

Silica

There are largely fewer data than repeated Exposure. But in Homo sapiens, When inhalational density is high for a short term in the revelation, there is a description that have an influence on the respiratory system in GIARC68(1997), SITTING(4th, 2002), DHP(13th, 2002). Because IARC68(1997) was Priority 1 document, assumed it Category 1(respiratory system).

Specific Target Organ. Systemic Toxicity (Repeated Exposure) :

Aluminum oxide

By occupational exposure, classified it in (EHC (1997)) mentioned in Category 1 where fibrosis of lung was accepted. In addition, in workers exposed by aluminum oxide dust of aluminum production and the pottery can not confirm the pneumoconiosis. According to the examination of inhalation exposure to a rat and a rabbit for 28 weeks, it was confirmed structural or functional change of the trachea or the bronchi, chronic pulmonary edema and dead.

Silica

To CICAD24(2000), IARC68(1997), DFGOT vol.14(2000), ACGIH-TLV(2005) of Priority 1 Document, because there was a description that had an influence on a respiratory system, the kidney in Homo sapiens, assumed it Category 1(Respiratory system, Kidney).

Aspiration Hazard : No information

Other : No information

**12. Ecological Information**

We do not believe that the recommended usage method will affect the environment, but below we describe the raw materials used.

Ecotoxicity

Fish	: Aluminum oxide	Salmo trutta: 96hr-NOEC > 100mg/L
	: Magnetite	Danio rerio: 96hr-LL0 ≥ 10000mg/L
Crustacea	: Aluminum oxide	Daphnia magna: 48hr-NOEC > 100mg/L
	: Magnetite	Daphnia magna: 48hr-EL0 ≥ 10000mg/L
Algae	: Aluminum oxide	Algae: 72hr-NOEC > 100mg/L
Other	: No information	
Persistence and Degradability	: No information	
Bioaccumulative Potential	: Silicone polymer	No bioaccumulation potential.
Mobility in Soil	: Silicone polymer	In soil, siloxanes are degraded.
Hazardous to the ozone layer	: Do not include an ingredient listed by an annex of Montreal Protocol.	
Other hazardousness	: Silicone polymer	Fate and Effects in Waste Water Treatment Plants No adverse effects on bacteria. Removed >90% by binding onto sewage sludge. The siloxanes in this product do not contribute to the BOD.

**13. Disposal Considerations**

Residual Waste :

Dispose of in accordance with relevant laws and local regulation.

Outsource to the industrial waste disposer who has the permission of governor of each prefecture or local public body for adequate disposal.

**14. Transport Information**

International Regulations	Land Transport	: Follow a rule of ADR/RID.
	Sea Transport	: Follow a rule of IMO.
	Air Transport	: Follow a rule of ICAO/IATA.
	UN-Number	: Not applicable
	UN-Hazard classr	: Not applicable
	Proper Shipping Name	: Not applicable
	Packing group	: Not applicable
	Marine Pollutant	: Not applicable
	Local Regulations	Land regulation information
Marine regulation information		: Follow the Law for Safety of Vessels.
Aviation regulation information		: Follow the Aviation Act.

Specific safety measures at the time of the transportation and condition :  
Under loading, containers must be carefully handled to prevent damage of containers and must be fixed them tightly to prevent falling of containers.  
Avoid the transportation under direct rays of the sun and the higher temperature  
Avoid contact with the water  
Transport it according to the standard of other laws concerned  
Emergency Response Guidebook number : Not applicable

## 15. Regulatory Information

Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances. : Not applicable  
Industrial Safety and Health Law : Article 57-2 Regulated Substance(s)  
189 Aluminum oxide  
312 Silica

Poisonous and Deleterious Substance Control Law : Not applicable  
Pollutant Release and Transfer Register(PRTR law) : Not applicable

Fire Service Law : Non-hazardous materials  
Sea Pollution Prevention Act : Not applicable  
Aviation Act : Not applicable  
Law for Safety of Vessels : Not applicable

## 16. Other Information

References :  
Globally Harmonized System of classification and labeling of chemicals, (5th ed., 2013), UN  
JIS Z 7253:2014  
1) NITE GHS classification data  
2) ECHA Home Page (<http://echa.europa.eu/information-on-chemicals>)  
3) NITE CHRIP (<http://www.safe.nite.go.jp/japan/sougou/view/SystemTop.jp.faces>)  
4) Safe site of the workplace(Ministry of Health, Labour and Welfare in Japan)  
5) International Chemical Safety Cards(ICSC)  
6) Judgment test result of Fire Services Law dangerous materials

Although the description content is based so far on our latest knowledge, absolute accuracy of the content and comprehensiveness of collecting information are not complete. Since all raw materials have unknown dangers, it is necessary to pay sufficient attention to handling.

Also, this information relates to raw materials and products being used, and we do not assume that this product is combined with other materials or processed.

This product is used for industrial; therefore, any other use of the product which involves medical purpose and other process is responsibility of the user. Do not use the purpose of implant for human body or if there is any possibilities to remain in body.

The contents of this SDS are subject to change without notice due to new findings.

The content of this SDS does not determine delivery specifications or rules.