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Revision Number 1  
EN**Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE  
COMPANY/UNDERTAKING****1.1. Product identifier**

Safety data sheet number CPS-E-2029M

Product Name Silaplane FM-4421

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

Recommended Use Resin modifier

Uses advised against Please do not use for medical applications.

**1.3. Details of the supplier of the safety data sheet****Importer****Manufacturer**JNC CORPORATION,  
Shin Otemachi Bldg.,2-1,Otemachi 2-Chome,Chiyoda-ku,Tokyo 100-8105 Japan  
TEL:+81-3-3243-6190 Fax:+81-3243-6069  
For further information, please contact**E-mail address** Silicon@jnc-corp.co.jp**1.4. Emergency telephone number**

Emergency Telephone +81-3-3243-6190

**Emergency Telephone - \$45 - (EC)1272/2008****Europe** 112**Section 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

**2.2. Label elements**

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

**hazard statements**

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

**2.3. Other hazards**

No information available

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

The product contains no substances which at their given concentration, are considered to be hazardous to health

Chemical name	EC No.	CAS RN®	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Poly[oxy(dimethylsilylene)], .alpha.-[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]-.omega.-[[[3-(2-hydroxyethoxy)propyl]dimethylsilyl]oxy]- (Mw5000)	-	156327-07-0	100	no data available	no data available

**Full text of H- and EUH-phrases: see section 16**

**Section 4: FIRST AID MEASURES****4.1. Description of first aid measures**

Inhalation	Remove to fresh air.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Do NOT induce vomiting. Rinse mouth thoroughly with water. Get immediate medical advice/attention.

**4.2. Most important symptoms and effects, both acute and delayed**

Symptoms	No information available.
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**4.3. Indication of any immediate medical attention and special treatment needed**

Note to physicians	Treat symptomatically.
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**Section 5: FIRE-FIGHTING MEASURES****5.1. Extinguishing media**

Suitable Extinguishing Media	Dry chemical or CO2. Foam.
Unsuitable extinguishing media	Do not use straight streams. Do not scatter spilled material with high pressure water streams.

**5.2. Special hazards arising from the substance or mixture**

Specific hazards arising from the	No information available.
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chemical

**Hazardous combustion products** Silicon dioxide.

### **5.3. Advice for firefighters**

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## **Section 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions** Ensure adequate ventilation.

**For emergency responders** Use personal protection recommended in Section 8.

### **6.2. Environmental precautions**

**Environmental precautions** See Section 12 for additional Ecological Information.

### **6.3. Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### **6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## **Section 7: HANDLING AND STORAGE**

### **7.1. Precautions for safe handling**

**Advice on safe handling** Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

### **7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

### **7.3. Specific end use(s)**

**Identified Uses**

**Risk Management Methods (RMM)** The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

**Exposure Limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

### 8.2. Exposure controls

#### **Personal protective equipment**

**Eye/face protection** Tight sealing safety goggles. Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable protective gloves. Impervious gloves. Rubber gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing. Apron. Protective shoes or boots.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** No information available.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	No information available
<b>Color</b>	light yellow clear
<b>Odor</b>	Odorless.
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	no data available	
<b>Melting point / freezing point</b>	no data available	
<b>Initial boiling point and boiling range</b>	no data available	
<b>Flash point</b>	338 °C	Cleveland Open Cup
<b>Evaporation rate</b>	no data available	
<b>Flammability</b>	no data available	
<b>Flammability Limit in Air</b>		
<b>Upper flammability or explosive limits</b>	no data available	
<b>Lower flammability or explosive limits</b>	no data available	

vapor pressure	no data available	
Relative vapor density	no data available	
Relative density	0.97	@ 25 °C
Water solubility	Insoluble in water	
Solubility(ies)	no data available	
Partition coefficient	no data available	
Autoignition temperature	no data available	
Decomposition temperature	no data available	
Kinematic viscosity	no data available	
Dynamic viscosity	80mm2/S	@ 25 °C
Explosive properties	No information available	
Oxidizing properties	No information available	

**9.2. Other information**

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

## Section 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

Reactivity	No information available.
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**10.2. Chemical stability**

Stability	Stable under normal conditions.
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**Explosion data**

**Sensitivity to Mechanical Impact** no data available.

**Sensitivity to Static Discharge** no data available.

**10.3. Possibility of hazardous reactions**

Possibility of hazardous reactions	It is stable under general handling and storage conditions (40 ° C or less, under atmospheric pressure).
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**10.4. Conditions to avoid**

Conditions to avoid	Humidity. Keep away from open flames, hot surfaces and sources of ignition. static discharge (electrostatic discharge).
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**10.5. Incompatible materials**

Incompatible materials	Acids. Alkali.
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**10.6. Hazardous decomposition products**

Hazardous decomposition products	Silicon dioxide, nitrogen oxides and the like may be generated by combustion or thermal decomposition.
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## Section 11: TOXICOLOGICAL INFORMATION

**11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	May be harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics**

<b>Symptoms</b>	No information available.
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**Numerical measures of toxicity****Acute toxicity**

<b>Unknown acute toxicity</b>	100 % of the mixture consists of ingredient(s) of unknown toxicity.
	100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
	100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
	100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
	100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

**Product Information**

<b>Oral LD50</b>	> 5000 mg/kg (rat)
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**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Skin corrosion/irritation</b>	No information available.
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Product Information					
Method	Species	Exposure route	Effective dose	Exposure time	Results
OECD Test No. 404: Acute Dermal Irritation/Corrosion	Rabbit	Dermal			

<b>Serious eye damage/eye irritation</b>	No information available.
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<b>Respiratory or skin sensitization</b>	No information available.
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<b>Germ cell mutagenicity</b>	No information available.
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<b>Carcinogenicity</b>	No information available.
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<b>Reproductive toxicity</b>	No information available.
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<b>STOT - single exposure</b>	No information available.
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<b>STOT - repeated exposure</b>	No information available.
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<b>Aspiration hazard</b>	No information available.
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## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

Ecotoxicity	The environmental impact of this product has not been fully investigated.
Unknown aquatic toxicity	Contains 0 % of components with unknown hazards to the aquatic environment.

### 12.2. Persistence and degradability

Persistence and degradability	No information available.
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### 12.3. Bioaccumulative potential

Bioaccumulation	No information available.
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### 12.4. Mobility in soil

Mobility in soil	No information available.
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### 12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment	No information available.
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### 12.6. Other adverse effects

Other adverse effects	No information available.
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## Section 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

Waste from residues/unused products	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Empty remaining contents. Dispose of contents/containers in accordance with local regulations.

## Section 14: TRANSPORT INFORMATION

### IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	No information available

**RID**

14.1	UN Number	Not regulated
14.2	UN proper shipping name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing Group	Not regulated
14.5	Environmental hazards	Not applicable
14.6	Special Provisions	None

**ADR**

14.1	UN number or ID number	Not regulated
14.2	UN proper shipping name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing group	Not regulated
14.5	Environmental hazards	Not applicable
14.6	Special Provisions	None

**IATA**

		Not regulated
14.1	UN number or ID number	Not regulated
14.2	UN proper shipping name	Not regulated
14.3	Transport hazard class(es)	Not regulated
14.4	Packing group	Not regulated
14.5	Environmental hazards	Not applicable
14.6	Special Provisions	None

**Section 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

**Authorizations and/or restrictions on use:**

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009** Not applicable

**International Inventories**

TSCA	Does not comply
DSL/NDL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Not included
KECL	Does not comply
PICCS	Does not comply
AIIC	Does not comply

**Legend:**



**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AIIC** - Australian Inventory of Industrial Chemicals

### 15.2. Chemical safety assessment

**Chemical Safety Report** No information available

## Section 16: OTHER INFORMATION

### Key or legend to abbreviations and acronyms used in the safety data sheet

#### Legend

SVHC: Substances of Very High Concern for Authorization:

#### Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	On basis of test data
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapor	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitization	Calculation method
Skin sensitization	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method
Ozone	Calculation method

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

#### Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

