

Date of issue: 19<sup>th</sup> Apr, 2019

## SAFETY DATA SHEET

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### Section 1: Chemical product and company identification

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#### 1.1 Product identifier

**Product name:** Dispersion of Titanium Dioxide : DIS-11A

#### 1.2 Details of the supplier of the safety data sheet:

**Manufacturer:** Sakai Chemical Industry Co., Ltd.  
**Site Name:** Onahama Manufacturing Site  
**Section Name:** Technology Section, Matsubara Factory  
**Address:** 110 Tajuku, Shimokawa, Izumi-machi, Iwaki-shi, Fukushima 971-8183, Japan  
**Tel:** +81-(0)246-56-5111  
**Fax:** +81-(0)246-53-5223  
**Emergency phone number:** +81-(0)246-56-5111

#### 1.3 Recommended use and restrictions:

Cosmetics

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### Section 2: Hazards identification

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#### 2.1 GHS Classification

Physical Hazards:

Inflammable liquid: Category 4

Health Hazards

Serious eye damage/eye irritation: Category 2B

Environmental Hazards:

Hazardous to the aquatic environment (long-term hazard): Category 4

#### 2.2 GHS Label Elements

Pictogram: None

Signal Word: Warning

Hazard Statements: H227 Combustible liquid.  
Eye irritation.  
May cause long lasting harmful effects to aquatic life.

Precautionary Statements

[Prevention]

Keep away from flames and hot surfaces. –No smoking.  
Wear protective gloves/eye protection/face protection.  
Do not breathe dust/fume/gas/mist/vapors/spray.  
Wash hands thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Avoid release to the environment.

[Emergency response]

IF exposed: Call a POISON CENTER or doctor/physician.

Specific treatment.

In case of fire: Use water (mist), dry chemicals, fire form or carbon dioxide for extinction.

Collect spillage.

[Storage]

Store in a well-ventilated place. Keep cool.

[Disposal]

Dispose of contents/ container in accordance with related laws and local/ regional regulations.

**2.3 Important hazards and adverse effects**

Flammable liquid.

Eye irritation.

May cause long lasting harmful effects to aquatic life.

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**Section 3: Composition/ information on ingredients**

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**3.1 Substance/ Mixture:** mixture

**3.2 Common name or chemical name:**

Titanium dioxide dispersion silicone

**3.3 Information on ingredients**

Chemical name	Chemical formula	CAS number	Class reference No. in the JPN Gazetted list	Concentration or Concentration range
Titanium dioxide	TiO	13463-67-7	(1)-558	26~36%
Hydrated silica	SiO <sub>2</sub> · nH <sub>2</sub> O	1343-98-2	(1)-548	1.0~10%
Aluminum Hydroxide	Al(OH) <sub>3</sub>	21645-51-2	(1)-17	1.0~10%
Hydrogen dimethicone	[SiO(CH <sub>3</sub> ) <sub>2</sub> ] <sub>m</sub> [SiO(CH <sub>3</sub> )H] <sub>n</sub>	68037-59-2	(7)-477	1.0~10%
Decamethylcyclopentasiloxane	[(CH <sub>3</sub> ) <sub>2</sub> SiO] <sub>5</sub>	541-02-6	(7)-475	45~55%
PEG-10 dimethicone	Unidentified	—	—	5.0~15%

**3.4 Hazardous constituents to contribute to the GHS classification**

Titanium dioxide、Cyclopentasiloxane

## **Section 4: First aid measures**

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### **4.1 Description of first aid measures**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms (e.g. nausea or headache) continue, call a POISON CENTER or doctor/physician.

IF ON SKIN: In case of skin irritation or discomfort, stop using the product. Wash with plenty of water. If symptoms continue, call a POISON CENTER or doctor/physician.

IF IN EYES: Rinse cautiously with water for 15 -20 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms continue, call a POISON CENTER or doctor/physician.

IF SWALLOWED: Rinse mouth. Slowly drink 1-2 cups of water or milk for diluting content of the stomach. But if caused clouding of consciousness, coma or spasm, giving nothing and call doctor/physician.

### **4.2 Protection of first-aiders**

First-aiders should wear suitable protective equipment for eyes and skin and respirator depending on situations.

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## **Section 5: Firefighting measures**

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### **5.1 Suitable extinguishing media:**

Water (mist), dry chemicals, fire form or carbon dioxide

### **5.2 Unsuitable extinguishing media:**

Avoid direct discharge of water jet because it may spread fire to surroundings.

### **5.3 Specific hazard**

The mixture of vapor and air is explosive.

May produce fumes of silicon dioxide and powder dust in case of fire.

### **5.4 Specific fire fighting methods**

Take action from windward.

Keep out except responsible personnel.

Move container to a safe area if it can be done without risk.

### **5.5 Protection for firefighters**

Avoid inhalation of toxic smoke, vapor, gas, fumes or powder dust in fire fighting.

Fire fighters should wear appropriate personal protective equipment.

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## **Section 6: Accidental release measures**

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

Off-limit except responsible personnel.

Wear suitable protective equipment (See Section 8) to prevent any contamination of skin or eyes.

### **6.2 Environmental precautions**

Avoid release into the environment because product may cause local effects.

May cause long lasting harmful effects to aquatic life.

### 6.3 Methods for isolation and cleaning up

Collect spill by absorbing with dry soil, sand or other non-flammable materials or pick up spill in an empty containers sealed over.

Stick the label about contents on the container.

Dispose later.

Sweep with the cleaning tool at spillage area and then completely washed with water.

### 6.4 Prevention of secondary hazards

Do not eat or drink near handling and storage locations.

Prevent to flow into drains, sewers, basements or closed areas.

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## Section 7: Handling and storage

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### 7.1 Handling

Technological countermeasure:

Wear suitable protective equipment according to Section 8.

Precautions for safe handling:

Wash hands thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wash contaminated clothing before reuse.

### 7.2 Storage

Technological countermeasure:

Store dangerous and hazardous materials, or install and ventilation system to handle the product.

Conditions for safe storage:

Seal the container and store in a well-ventilated, dry and cool place.

Store to avoid high temperatures.

Safety container packaging materials

Use a sealed container without damage or leakage.

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## Section 8: Exposure controls/ personal protection

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### 8.1 Administrative control level/Working environment assessment standard

Soil and stone, rock, mineral, metal or dust of carbon: E = 3.0 mg/m<sup>3</sup>

(IF NOT contain free silicic acid (Crystalline silica))

### 8.2 Acceptable concentration (exposure limit, biological exposure index)

Japan SOH : 1 mg/m<sup>3</sup> (as titanium dioxide, respirable dust)

4 mg/m<sup>3</sup> (as titanium dioxide, total dust)

ACGIH TLV-TWA (2009): 10 mg/m<sup>3</sup> (as titanium dioxide)

### 8.3 Personal protective equipment

Respiratory protection: Wear mask for organic gases or with a filter as necessary if may produce dust/fume/vapor/gas.

Hand protection: Wear protective rubber gloves for reagent if hand contact.

Eye protection: Wear safety goggles for reagent if in eyes.

Skin protection: Wear protective clothing and safety hat.

#### 8.4 Equipment measures

Install ventilation system if may produce dust/fume/ vapor/gas.

#### 8.5 Hygiene measure

Wash hands and face well after handling.

Do not eat, drink or smoke around the handling place.

Wash contaminated work clothing before reuse.

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### Section 9: Physical and chemical properties

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Appearance: White liquid

Flash point: About 77°C

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### Section 10: Stability and reactivity

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#### 10.1 Reactivity

Nonreactive under normal handling condition.

#### 10.2 Chemical stability

Stable under normal handling condition.

#### 10.3 Conditions to avoid

Do not contact with strong oxidants.

#### 10.4 Hazardous decomposition products

May produce carbon monoxide, silicon dioxide, formaldehyde or many carbon hydrides by inflammation.

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### Section 11: Toxicological information

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#### 11.1 Information on the product

No information

#### 11.2 Information on ingredient

Titanium dioxide

Acute toxicity: Oral LD<sub>50</sub> (rat) > 10,000 mg/kg  
Dermal approx.LD50 (rabbit) > 10,000 mg/kg  
Inhalation (dust) LC (rat) > 6.82 mg/L (4h)

Serious eye damage/ irritation:

Category 2B (Causes eye irritation).

Rabbit : mild irritation.

Carcinogenicity:

In epidemiological research about the carcinogenicity to human in Europe and North America, there is no causal relationship between exposure to titanium dioxide and carcinogenicity.

However information is too insufficient to sort out.

## **Section 12: Ecological information**

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### **12.1 Information on the product**

No information

### **12.2 Information on ingredient**

Titanium dioxide

Hazardous to the aquatic environment (long-term hazard):Category 4

The behavior of titanium dioxide in water is unknown.

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## **Section 13: Disposal consideration**

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### **13.1 Remaining product**

Dispose of waste in accordance with applicable local, regional and international regulations and standards.

When disposing, consult to a certificated waste trader or local offices if they deal with the waste.

May rapidly produce large amount of gas if heated.

### **13.2 Contaminated containers and packaging**

Used container should be recycled after cleaning or dispose of in compliance with related laws and local regulations.

Contents should be removed completely when dispose of empty containers.

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## **Section 14: Transport information**

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### **14.1 International regulation**

**UN number:** Not applicable.

**Class:** Not applicable.

### **14.2 National regulation:**

Ground transport: Follow transport methods in accordance with Fire Service Act (Flammable liquids, fourth group, third class petroleum).

Air transport: Not applicable.

Marine transport: Not applicable.

### **14.3 Emergency Response Guidebook: 171**

### **14.4 Special security measures**

When transporting, avoid direct sunlight and ensure appropriate measures to prevent loading damage, falling containers or leaking wet the product.

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**Section 15: Regulatory information**

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Industrial Safety and Health Act: Dangerous and hazardous substance to be notified in terms of whose name (Titanium dioxide; containing more than 1% by weight)

Fire Service Act: Flammable liquids, fourth group, third class petroleum

Marine Pollution Prevention Law: First harmful liquid substance (Class Z) (Titanium dioxide)

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**Section 16: Other information**

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This product contains nanomaterials and nanomaterial ensembles which at least one dimensions of three-dimensional indicating the size is 1 nm - 100 nm.

**Reference:**

Chemical Management Field, Chemical Risk Information Platform (CHRIP) GHS Classification (<http://www.safe.nite.go.jp/ghs/list.html>).

The Japan Society for Occupational Health (2006) Recommendation of Occupational Exposure Limits.  
ACGIH (2009) TLVs and BEIs

**[Disclaimer]**

This MSDS has been prepared according to JIS Z 7250:2005, JIS Z 7251:2006 and JIS Z 7252:2009, and based on the best available information however, it may not be sufficient in some cases. It is User's responsibility to modify or update any contents in this MSDS regarding information on hazardous properties and/ or instruction for safe handling of the product when they become available. Precautionary measures in this MSDS are only applicable for normal handling conditions and it is necessary to take appropriate additional measures to ensure safe handling which depend on your specific use conditions or situations.