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**SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

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**Product Identifier:****Product Name:** Toner for KIP7970**Product Code:** None**Relevant Identified Uses and Uses Advised Against :** This product is a toner used in printers/copiers.**Manufacturer:** KATSURAGAWA ELECTRIC CO., LTD.**Address:** 21-1, Shimomaruko 4-Chome, Ota-ku, Tokyo 146-8585, Japan**Details of Supplier of Safety Data Sheet:****Supplier:****Address:****Telephone Number:****E-mail Address:****Emergency Telephone Number:**

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**SECTION 2 HAZARDS IDENTIFICATION**

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**Emergency Overview:**

This product is not classified as dangerous according to the latest adaptations of EU Directive 1999/45/EC or 67/548/EEC.

Appearance and odor : Fine black powder, slight plastic odor.

**US Regulatory Status:**

Hazardous under OSHA HCS.

**US Label Elements:****Signal Word:** Not required**Hazard Warning:** Not required**Safety Advice:** Not required**Hazardous Component:** None**EU Classification:**

Not classified as dangerous.

**EU Label Elements:****Symbol & Indication:** Not required**R-Phrase:** None**S-Phrase:** None**Dangerous Component:** None**Applicable Label Elements in accordance with Annex V to 1999/45/EC:**

Not applicable

**Authorisation# under (EC)****No 1907/2006:**

None

**Other Hazards:** Fine and explosion hazard:  
This product, like most organic powders, can cause a dust explosion if particles form thick clouds.

### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Substance or Mixture:** Mixture

**Ingredient(s):**

Chemical Name/ Generic Name	CAS#	EC#/ Registration#	Concentration/ Concentration Range (%)	EU Classification according to 67/548/EEC		EU Classification according to (EC) No 1272/2008	
				Symbol/ Indication of Danger	R-Phrase* <sup>1</sup>	Hazard Class/ Category Code	Hazard Statement* <sup>1</sup>
Polyester resin	186397-54-6	Not applicable	65-75%	None	None	None	None
Polyester resin	148556-68-7	Not applicable	15-25%	None	None	None	None
Carbon black	1333-86-4	215-609-9	3-7%	None	None	None	None
Polypropylene	9003-07-0	Not applicable	1-5%	None	None	None	None
pigment	147-14-8	205-685-1	0.1-1%	None	None	None	None
Dye	104815-18-1	403-590-1	0.5-1.5%	None	None	None	None
Amorphous Silica	7631-86-9	231-545-4	1-3%	None	None	None	None

\*1 Full texts of R-phrase(s) and Hazard statement(s) are listed in SECTION 16

**Carcinogen(s):**

Chemical Name:	CAS#:	Reference:
Carbon black	1333-86-4	2B (IARC)

**PBT Substance(s) and vPvB Substance(s):**

Chemical Name:	CAS#:	Category:
None		

**Substance(s) listed in Candidate List of SVHC:**

Chemical Name:	CAS#:	Category:
None		

### SECTION 4 FIRST AID MEASURES

**First Aid Measures:**

**Inhalation:** Provide fresh air immediately. If symptoms occur, seek medical advice.

**Ingestion:** Clean mouth out with water. Drink several glasses of water. If sickness develops, seek medical advice.

**Skin:** Wash out particles with plenty of water and soap. If irritation develops, seek medical advice.

**Eye:** Do not rub eyes. Immediately rinse with plenty of clean running water until particles are washed out. If irritation persists, seek medical advice.

**Most Important Symptoms and Effects, both Acute and Delayed:**

**Inhalation:** None known.

**Ingestion:** None known.

**Skin :** None known.

**Eye:** None known.

**Chronic Effects:** None known.

**Medical Conditions Generally known to be Aggravated by Exposure:** None known.

**Indication of Any Immediate Medical Attention and Special Treatment Needed:** None known.

## SECTION 5 FIRE FIGHTING MEASURES

### Extinguishing Media:

**Suitable Extinguishing Media:** Carbon dioxide, water, foam, dry chemical

**Unsuitable Extinguishing Media:** None known.

**Special Hazards:** None known.

**Hazardous Combustion Products:** Toner, like most organic powders, is capable of creating a dust explosion when particles are dispersed. Carbon monoxide and carbon dioxide are hazardous resulting gases.

**Advice for Fire-fighters:** None known.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures:** Avoid dust formation. Do not breathe dust.

Wear personal protective equipment as described in Section 8.

**Environmental Precautions:** Do not discharge into drains.

**Methods and Material for Containment and Cleaning Up:** Eliminate source of ignition and flammables. Vacuum or sweep the material into a sealed container. If a vacuum cleaner is used, it must be dust explosion-proof. Dispose of the material in accordance with Federal/state/local requirements.

**Reference to Other Sections:** Refer to section 13.

## SECTION 7 HANDLING AND STORAGE

**Precautions for Safe Handling:** Keep out of reach of children.  
Avoid dust formation. Handle in adequately ventilated areas.  
Do not breathe dust. Do not get in eyes or on skin.  
Keep away from excessive heat and sources of ignition such as sparks and open flames.  
Ensure all the equipment is electrically earthed/grounded before beginning operation.

**Conditions for Safe Storage, Including Any Incompatibilities:** Keep out of reach of children.  
Keep container closed and store at room temperature.  
Keep away from excessive heat and sources of ignition.  
Do not store with strong oxidizers.

**Specific End Uses:** This product is a toner used in printers/copiers.

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION****Control Parameters:**

<b>Product:</b>	<b>USA OSHA PEL</b>	<b>ACGIH TLV</b>	<b>EU OEL</b>	<b>DFG MAK</b>
toner	Total dust: 15mg/m <sup>3</sup> Respirable fraction: 5mg/m <sup>3</sup>	Inhalable particulate: 10mg/m <sup>3</sup> Respirable particulate: 3mg/m <sup>3</sup>	None known.	None known.

<b>Ingredient(s):</b>	<b>USA OSHA PEL</b>	<b>ACGIH TLV</b>	<b>EU OEL</b>	<b>DFG MAK</b>
Carbon black	3.5mg/m <sup>3</sup>	3.5mg/m <sup>3</sup>	None known.	None known.
Amorphous silica	20mppcf* or 80%SiO <sub>2</sub> mg/m <sup>3</sup> (* million particles per cubic foot)	Not listed	None known.	None known.

**Exposure Controls:**

**Engineering Controls:** Good general ventilation should be sufficient under normal conditions of use.  
Gloves are recommended.  
Protective goggles or safety glasses are recommended.  
Personal respiratory mask is not required under normal conditions of use, but a respirator is needed in case of dust formation.

**DNEL(s):** Not available

**PNEC(s):** Not available

**Individual Protection Measures:**

**Eye/Face Protection:**  Required  Not Required

**Skin Protection:**  Required  Not Required

**Respiratory Protection:**  Required  Not Required

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES****Information on Basic Physical and Chemical Properties:**

<b>Appearance:</b>	Fine black powder
<b>Odor:</b>	None or slight plastic-like odor
<b>pH:</b>	Not applicable
<b>Melting Point/Freezing Point (°C):</b>	120-130 degrees centigrade (Softening Point)
<b>Initial Boiling Point and Boiling Range (°C):</b>	Not applicable
<b>Flash Point (°C):</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Flammability:</b>	Not applicable
<b>Upper/Lower Flammable or Explosive Limits:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable
<b>Vapor Density:</b>	Not applicable

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<b>Relative Density:</b>	Not applicable
<b>Water Solubility:</b>	Negligible
<b>Fat Solubility:</b>	Partially soluble in toluene and THF
<b>Partition Coefficient (n-Octanol/Water):</b>	Not applicable
<b>Auto-ignition Temperature (°C):</b>	Not applicable
<b>Decomposition Temperature (°C):</b>	> 200°C
<b>Viscosity (mPa s):</b>	Not applicable
<b>Explosive Properties:</b>	Not applicable
<b>Oxidizing Properties:</b>	Not applicable
<b>Other Information:</b>	None

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**SECTION 10 STABILITY AND REACTIVITY**

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<b>Reactivity:</b>	No hazardous polymerization will occur.
<b>Chemical Stability:</b>	<input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable
<b>Possibility of Hazardous Reactions:</b>	None
<b>Conditions to Avoid:</b>	Excessive heat, Dust formation
<b>Incompatible Materials:</b>	Strong oxidizers, which could vigorously oxidize organic materials in this mixture and cause a fire in an extreme case.
<b>Hazardous Decomposition Products:</b>	Carbon monoxide and carbon dioxide when combusted.

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**SECTION 11 TOXICOLOGICAL INFORMATION**

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**Information on Toxicological Effects:****Acute Toxicity:****Inhalation:** No data available**Ingestion:** This product : LD50rat > 2,000mg/kg  
Similar product : LD50rat > 5,000mg/kg (OECD 425), not harmful. 1)**Corrosivity/Irritation:****Skin:** This product is classified as nonirritant to the dermal tissue of rabbit. 1)**Eye:** This product is classified as nonirritant to the ocular tissue of rabbit. 1)**Sensitization:****Skin:** No data available**Repeated Dose Toxicity:** No data available**Carcinogenicity:** No data available  
In 1996 the IARC reevaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals for which there is inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification is based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats did not show any association between carbon black and lung tumors. Moreover, a two-year cancer

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bioassay using a typical toner product containing carbon black demonstrated no association between toner exposure and tumor development in rats. 2)

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**Mutagenicity:** Ames test (Salmonella typhimurium , Escherichia coli) negative. 1)

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**Toxicity for Reproduction:** No data available

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**Other Information:** Not available

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**Toxicokinetics, Metabolism and Distribution:** Not available

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## SECTION 12 ECOLOGICAL INFORMATION

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**Toxicity:** No data available

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**Persistence and Degradability:** No data available

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**Bioaccumulative Potential:** No data available

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**Mobility in Soil:** No data available

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**Results of PBT and vPvB Assessment:** No data available

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**Other Adverse Effects:** No data available

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## SECTION 13 DISPOSAL CONSIDERATIONS

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**Waste Treatment Methods:** Waste material may be dumped or incinerated on condition that meets all country, state and local environmental regulations.  
Recommendation: consult with the disposal agency and the relevant authorities; cleansing agent is water.

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## SECTION 14 TRANSPORT INFORMATION

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**UN Number:** None

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**UN Proper Shipping Name:** None

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**Transport Hazard Class:** None

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**Packing Group:** None

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**Environmental Hazards:** None

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**Special Precautions for User:** None

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**Transport in Bulk according to Annex II of MARPOL 73/78 and IBC Code:** Not applicable

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**Other Information:** It is not regulated for air-transport IATA regulation.

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**SECTION 15 REGULATORY INFORMATION**

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**US Information:****SARA Title III, 313:****Chemical Name:****Wt%:**

None

**California Proposition 65:****Chemical Name:****Wt%:**

None

**EU Information:****Safety, Health and Environmental Regulations/Legislation:****(EC) No 1907/2006:****Authorisation:**

Not regulated

**Restriction:**

Not regulated

**(EC) No 1005/2009:**

Not regulated

**(EC) No 850/2004:**

Not regulated

**(EC) No 689/2008:**

Not regulated

**Others:**

None

**Chemical Safety Assessment under (EC) No 1907/2006:**

Not assessed

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**SECTION 16 OTHER INFORMATION**

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**Other Information:**

OSHA Hazard Communication Standard 29 CFR 1910.1210, EU Directives 1999/45/EC and 67/548/EEC mean their latest adaptation in this safety data sheet.

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**Annex:**

None

**Date of Issue:****Revision Date:**

Oct. 17, 2013

**Literature Reference:**

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- 1). In-house data
  - 2). •EC-directives 67/548/EEC and 99/45/EC
    - IARC Monographs volumes 1-104
    - EPA, Proposed Guidelines for Carcinogen Risk Assessment (1986)
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**Date of Issue:****Revision Date:** Ver. 2013/10/17

**Abbreviations:**

**EU:** European Union

**PBT:** Persistent, Bioaccumulative and Toxic

**vPvB:** very Persistent and very Bioaccumulative

**SVHC:** Substances of Very High Concern

**OSHA PEL:** PEL (Permissible Exposure Limit) under Occupational Safety and Health Administration

**ACGIH TLV:** TLV (Threshold Limit Value) under American Conference of Governmental Industrial Hygienists

**EU OEL:** Occupational exposure limits at Community level under Directive 2004/37/EC Annex, 98/24/EC Annex, 91/322/EEC Annex, 2000/39/EC Annex, 2006/15/EC Annex and 2009/161/EU

**DFG MAK:** MAK (Maximale Arbeitsplatz-Konzentration) under Deutsche Forschungsgemeinschaft

**DNEL:** Derived No-Effect Level

**PNEC:** Predicted No-Effect Concentration



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# SAFETY DATA SHEET

SDS No.: KG27-04E

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## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### MATERIAL IDENTIFICATION:

Organic Photoconductor for KIP7970

DISTRIBUTOR'S NAME: KATSURAGAWA ELECTRIC CO., LTD.  
DISTRIBUTOR'S ADDRESS: 21-1, Shimomaruko 4-Chome, Ota-ku, Tokyo 146-8585, Japan  
TELEPHONE NUMBER: 81-3-3758-3550  
FACSIMILE NUMBER: 81-3-3758-7568

DATE PREPARED: Apr. 01. 2005

DATE REVISED: Oct. 17. 2013

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is an "article".

INGREDIENTS	CAS No.	PROPORTION
Aluminum cylinder	-	>97%
Binder resin	-	<1%
Photosensitive material	-	<1%
Pigment	-	<1%

## 3. HAZARD IDENTIFICATION

### EMERGENCY OVERVIEW

Green, odorless and solid cylinder. None hazardous product.

### POTENTIAL HEALTH EFFECTS

Based on animal testing, this product is presumed to be no health effects.

#### 4. FIRST AID MEASURES

- EYES: No eye contact in normal use. If exposed to the dust of photoconductive layer, flush eyes with water. Get medical attention, if feels irritation.
- SKIN: None treatment is required. If exposed to much of the dust of photoconductive layer, wash out with water.
- INGESTION: No ingestion in normal use. If swallowed the dust of photoconductive layer, induce vomiting as much as possible. Get medical attention, if feels something bad.
- INHALATION: No inhalation in normal use. If exposed to the dust of photoconductive layer, get medical attention if cough or other symptoms develop.

#### 5. FIRE FIGHTING MEASURES

- EXTINGUISHING MEDIA: CO<sub>2</sub>, Dry chemical, Foam or Water
- FIRE-FIGHTING EQUIPMENT: Suitable personal protective equipment

#### 6. ACCIDENTAL RELEASE MEASURES

- PERSONAL PRECAUTIONS : None required under normal use.
- ENVIRONMENTAL PRECAUTIONS : None required under normal use.
- METHODS FOR CLEANING UP : Collect. No special precautions required in collection.

#### 7. HANDLING AND STORAGE

- HANDLING: No special precaution. Do not touch the photoconductive layer directly, expose to organic solvent vapor or sunlight to prevent degradation.
- STORAGE: Store in normal temperature, normal humidity and dark place. Avoid dew condensation, organic solvent vapor.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- OCCUPATIONAL EXPOSURE LIMIT: ACGIH Not established.  
OSHA Not established.
- ENGINEERING MEASURES: Not required.

##### PERSONAL PROTECTIVE EQUIPMENT:

- RESPIRATORY PROTECTION: None required.
- SKIN PROTECTION: No precautions.
- EYE PROTECTION: None.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Green and solid cylinder
ODOR:	Odorless
BOILING POINT:	Not applicable
VAP PRESS:	Not applicable
VAP DENSITY:	Not applicable
SP. GRAVITY:	2.7
SOL IN WATER:	Insoluble
SOL IN OTHER SOLVENT:	Photoconductive layer is soluble in organic solvent like tetrahydrofuran.
FLAMMABLE PROPERTIES:	Not applicable
FLASH POINT:	Not applicable
FLAMMABLE LIMITS	
LFL:	Not applicable
UFL:	Not applicable

## 10. STABILITY AND REACTIVITY

STABILITY:	Stable
HAZARDOUS DECOMPOSITION PRODUCTS:	None
HAZARDOUS POLYMERIZATION:	None

## 11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:	oral (rat) LD <sub>50</sub> >2,000mg/kg <sup>1)</sup> (Photoconductive layer)
	skin (rabbit) LD <sub>50</sub> not available
SKIN IRRITATION:	No skin irritation was noted in the rabbit dermal toxicity study. <sup>1)</sup> (Photoconductive layer)
EYE IRRITATION:	Reversible and mild eye irritation potential to the eyes of rabbits. <sup>1)</sup> (Photoconductive layer)
SENSITIZING:	Not available.
CHRONIC TOXICITY:	Not available.
MUTAGENICITY:	Negative in the Ames test. <sup>1)</sup> (Photoconductive layer)
CARCINOGENICITY:	IARC; , ACGIH; , NTP; Not available.
REPRODUCTIVE TOXICITY:	Not available.

## 12. ECOLOGICAL INFORMATION

No data available.

### 13. DISPOSAL CONSIDERATIONS

Any disposal practice should be done under conditions which meet local, state and federal laws and regulations relating to waste (contact local or state environmental agency for specific rules).

### 14. TRANSPORT INFORMATION

UN Haz. Class:               None allocated

UN No.:                       None

It is not regulated for air-transport IATA regulations.

### 15. REGULATORY INFORMATION

TSCA: This product do not fall in the category of the regulations and orders of section 6 and 7 of TSCA (Toxic Substance Control Act).

California Proposition 65:

This product contains no chemical substances subject to California Proposition 65.

Candidate List of SVHC (\*):

The product does not contain SVHC that are intentionally introduced.

(\*): Candidate lists of substances of very high concern (released by ECHA)

- ECHA/PR/08/38/-REV, 4 November 2008
- ECHA/PR/09/15, 07 December 2009

### 16. OTHER INFORMATION

MSDS STATUS:               No special notes.

REFERENCES:

- 1) In-house data