

SAFETY DATA SHEET

Issue date: Nov.2,2009
 Revise date: Dec. 20, 2013

1. PRODUCT & COMPANY IDENTIFICATION

[Product Identification]

Toner 11 MR ; 22

[Company Identification]

Name : MCVUWTCI CY C'GNGETK'E'EQ0'NVF0

Address: 41-1, Shimomaruko 4-chome, Ota-ku, Tokyo 146-8585, Japan

Telephone : 81-3-3758-3550 Facsimile : 81-3-3758-7568

2. HAZARDS IDENTIFICATION

GHS Classification

Physical Hazards	
Explosives	Not classified
Flammable gases	Not applicable
Flammable aerosols	Not applicable
Oxidizing gases	Not applicable
Gases under pressure	Not applicable
Flammable liquids	Not applicable
Flammable solids	Classification not possible
Self-reactive substances and mixtures	Classification not possible
Pyrophoric liquids	Not applicable
Pyrophoric solids	Classification not possible
Self-heating substances and mixtures	Classification not possible
Substances and mixtures, which in contact with water, emit flammable gases	Classification not possible
Oxidizing liquids	Not applicable
Oxidizing solids	Classification not possible
Organic peroxides	Classification not possible
Corrosive to metals	Classification not possible
Health Hazards	
Acute toxicity (oral)	Classification not possible
Acute toxicity (dermal)	Classification not possible
Acute toxicity (inhalation: dust, mist)	Classification not possible
Skin corrosion / irritation	Classification not possible
Serious eye damage / eye irritation	Classification not possible
Respiratory sensitizer	Classification not possible
Skin sensitizer	Not classified
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Toxic to reproduction	Classification not possible
Specific target organs/systemic toxicity following single exposure	Classification not possible
Specific target organs/systemic toxicity following repeated exposure	Classification not possible
Aspiration hazard	Classification not possible
Environmental Hazards	
Hazardous to the aquatic environment (acute)	Classification not possible
Hazardous to the aquatic environment (chronic)	Classification not possible

In accordance with GHS classification criteria, this product is not classified as hazardous mixture.

Indication of danger:

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 99/45/EC and their various amendments and adaptations.

[Potential Health Effects]

Ingestion Effects: Ingestion is not applicable route of entry for intended use.

Inhalation Effects: Minimal respiratory tract irritation may occur with exposure to large amount of toner dust.

Eye Effects: Solid or dusts may cause irritation or scratch the surface of eye.

Skin Effects: Unlikely to cause skin irritation.

[Environmental Hazards]

No particular hazards known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

[Composition / Information]

Ingredients	CAS No.	Proportion	OSHA PEL	ACGIH TLV	ACGIH TLV
Polyester resin-1	Proprietary	45-65%	Not listed	Not listed	Not available
Polyester resin-2	Proprietary	25-45%	Not listed	Not listed	Not available
Carbon black	1333-86-4	3-7%	3.5mg/m3	3.5mg/m3	Not available
Wax	Proprietary	1-5%	Not listed	Not listed	Not available
Dye	104815-18-1	0.5-1.5%	Not listed	Not listed	Not available
Pigment	147-14-8	0.1-1%	Not listed	Not listed	Not available
Silica	7631-86-9	1-3%	20 mppcf (*) 80/(%SiO2) mg/m3	Not listed	Not available

(*) million particles/cubic foot

[Further Information]

All ingredients of this product are registered in TSCA Inventory.

4. FIRST-AID MEASURES

Ingestion : Dilute stomach contents with several glasses of water. Get medical attention if symptoms persist.

Inhalation : Move person to fresh air immediately. If symptoms occur, consult a physician.

Eye Contact: Immediately flush with large amount of clean water for at least 15 minutes. If irritation persists, consult a physician

Skin Contact: Wash affected areas thoroughly with soap and water. If irritation persists, consult a physician.

5. FIRE-FIGHTING MEASURES

Extinguishing Media : CO2, water, dry chemical

Special Fire-fighting Procedure : None

Unusual Fire & Explosion Hazards : Toner material, like most organic material in powder form, is capable of creating a dust explosion.

6. ACCIDENTAL RELEASE MEASURES

Spill and Leakage Procedure :

Wear personal protective equipment as described in Section 8. Avoid breathing dust. Minimize the release of particles. Vacuum or sweep the material into a bag or other sealed container. Dispose of waste toner in accordance with local requirements.

Environmental precautions :

Do not discharge into drains .

7. HANDLING & STORAGE

Advise on safe handling and protection against fire :

Keep material out of reach of children. Avoid inhalation of dust and contact with eyes. Keep away from excessive heat, sparks, and open flames.

Requirements for storage rooms and advice on compatibility :

Keep out of the reach of children. Keep container closed and store at room temperature. Keep away from strong oxidizers.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Occupational Exposure Limits For Toner :

ACGIH TLV : Particulates (Insoluble) Not Otherwise Specified

10mg/m³ (Inhalable Particulate)

3mg/m³ (Respirable Particulate)

OSHA PEL: Inert or Nuisance Dust

15mg/m³ (Total dust)

5mg/m³ (Respirable fraction)

Respiratory Protection : Not required under intended use.

Ventilation: Good general ventilation should be sufficient under intended use.

Protective Gloves : Not required under intended use.

Eye Protection : Not required under intended use.

Other Protective Equipment : Not required under intended use.

9. PHYSICAL & CHEMICAL PROPERTIES

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

Density : 1.2g/ cm³

Boiling Point : Not applicable

Melting Point : Not applicable

Vapor Pressure : Not applicable

Solubility in Water : Negligible

Solubility in Other Solvent : Partially soluble in toluene and THF

Percent Volatile by Volume : Not applicable

Flammable Limits : Not applicable

Flammability : No data available.

Explosibility : No data available.

10. STABILITY & REACTIVITY

Stability & Reactivity : Stable. Hazardous polymerization will not occur.

Materials to Avoid : None

Hazardous Decomposition Products : Combustion will produce carbon dioxide and, possibly toxic chemicals such as carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Acute toxicity (oral):

No test data available.

Acute toxicity (dermal):

No test data available.

Acute toxicity (inhalation: dust, mist):

No test data available.

Skin corrosion / irritation:

No test data available.

Serious eye damage / eye irritation:

No test data available.

Respiratory sensitizer:

No test data available.

Skin sensitizer:

Based on the result of the skin sensitization study in guinea pigs, the skin sensitizing potential of this product was considered negative. *1

Germ cell mutagenicity:

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

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

Toxic to reproduction:

No test data available.

Specific target organs/systemic toxicity following single exposure:

No test data available.

Specific target organs/systemic toxicity following repeated exposure**Oral:**

No test data available.

Dermal:

No test data available.

Inhalation:

No test data available.

In a study in rats of chronic inhalation exposure to a typical toner, a mild to moderate degree of lung fibrosis was observed in 92% of the rats in the high concentration (16mg/m³) exposure group. And a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/ m³) exposure group. But no pulmonary change was reported in the lowest (1mg/ m³) exposure group, the most relevant level to potential human exposures. The quantity of toner exhausted with the normal use of this product is estimated less than 1mg/m³ per day.

Aspiration hazard

No test data available.

12. ECOLOGICAL INFORMATION

No data available for ecological and wastewater treatment (sewage) systems. Avoid spills and dispose of in accordance with applicable laws and regulations.

Environmental Effects: No data available.

13. DISPOSAL CONSIDERATION

[Waste From This Product]

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.

14. TRANSPORT INFORMATION

[International Transport Information]

UN Number : None

Hazards Class: None

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

15. REGULATORY INFORMATION**California Proposition 65:**

Ingredient carbon black subject to California Proposition 65 is bound in polymer-matrices so that warnings are not required.

Label Information According to the DIRECTIVE 1999/45/EEC (EU) : None
Please refer to any other national measures that may be relevant.

16. OTHER INFORMATION
[MSDS STATUS]

Documents list

- *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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SAFETY DATA SHEET

MSDS No.: KG32-02E

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTIFICATION:

Organic Photoconductor for KIP9900

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: Sep. 19. 2008

DATE REVISED: Dec. 24. 2013

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is an "article".

<u>INGREDIENTS</u>	<u>CAS No.</u>	<u>PROPORTION</u>
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: CO₂, 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 ₅₀ >2,000mg/kg ¹⁾ (Photoconductive layer)
	skin (rabbit) LD ₅₀ not available
SKIN IRRITATION:	No skin irritation was noted in the rabbit dermal toxicity study. ¹⁾ (Photoconductive layer)
EYE IRRITATION:	Reversible and mild eye irritation potential to the eyes of rabbits. ¹⁾ (Photoconductive layer)
SENSITIZING:	Not available.
CHRONIC TOXICITY:	Not available.
MUTAGENICITY:	Negative in the Ames test. ¹⁾ (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, "Candidate List of Substances of Very High Concern for authorization", updated on 20/06/2011

16. OTHER INFORMATION

MSDS STATUS: No special notes.

REFERENCES:

1) In-house data