

# Panasonic Communications Co., Ltd.

## Office Network Company

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## Material Safety Data Sheet

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MSDS No.: 021-000617

Date : 29 August, 2005

### SECTION 1 PRODUCT IDENTIFICATION

Product Name : Toner for DP-8540-PU & DP-7240-PU

Product No. : DQ-TUQ60

### SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS #	PROPORTION (% by wt.)	OSHA PEL	ACGIH TLV	OTHER LIMITS
Polyester resin		85 - 95	None established	None established	None
Carbon black	1333-86-4	4 - 8	3.5 mg/m <sup>3</sup>	3.5 mg/m <sup>3</sup>	None
Wax		< 5	None established	None established	None
Organic pigment		< 1	None established	None established	None

### SECTION 3 HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW : If used as intended, the product does not present acute or chronic health hazard.

PHYSICAL HAZARDS : This product is not classified as flammable or combustible. It will burn in case of fire. Avoid contact with strong oxidizers such as chromate, bromate and nitrates.

Routes of Exposure : Inhalation, dermal contact, incidental ingestion.

INHALATION : Excessive inhalation may cause irritation of the nose, throat and respiratory tract.

EYE CONTACT : Non-irritant.

DERMAL CONTACT : Non-irritant, non-sensitizer.

INGESTION : Not currently known.

CHRONIC EFFECTS : See Section 11 Supplemental Health Information.

CARCINOGENICITY : See Section 11 Supplemental Health Information.

REPRODUCTIVE/DEVELOPMENTAL : Not identified.

TARGET ORGANS : Prolonged breathing of high concentrations may cause adverse effects on the respiratory system.

SIGNS AND SYMPTOMS OF EXPOSURE :

Prolonged exposure to dusts of this product may irritate the respiratory system.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE TO THIS PRODUCTS :

Respiratory disorders, such as asthma, may be aggravated by prolonged exposure to high concentrations of this product.

SECTION 4 FIRST AID MEASURES

EYE CONTACT : Immediately flush eyes with plenty of water for at least 15 minutes. If irritation persists, call a physician.

SKIN CONTACT : Wash with soap and water. Wash clothing before reuse. If irritation occurs or is persistent, seek medical attention.

INGESTION : Dilute stomach contents with several glasses of water.

INHALATION : Remove from exposure area to fresh air immediately. Contact a physician if there is any difficulty in breathing or other signs of distress.

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SECTION 5 FIRE FIGHTING MEASURES

GENERAL HAZARD : Product will burn in case of fire.

FLASH POINT : Not applicable.

FLAMMABLE LIMITS : Not applicable.

AUTOIGNITION TEMPERATURE : Not applicable.

FLAMMABILITY CLASSIFICATION : Not applicable.

EXTINGUISHING MEDIA : Foam, halon, carbon dioxide, dry chemical & water fog.

UNUSUAL FIRE & EXPLOSION HAZARD : Combustible powder. Dust of this product at sufficient concentrations can form explosive mixtures with air.

FIRE FIGHTING PROCEDURES : None

HAZARDOUS COMBUSTION PRODUCTS : Carbon monoxide, carbon dioxide and smoke.

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SECTION 6 ACCIDENTIAL RELEASE MEASURES

SPILLS OR LEAKS : Vacuum-clean spilled toner and carefully transfer into sealable waste container. If no vacuum-cleaner is available, sweep slowly to minimize generation of dust during clean-up. Residue can be removed with soap and cold water.

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SECTION 7 HANDLING AND STORAGE

HANDLING : Avoid dust, keep away from ignition sources.

PREVENTION OF FIRE AND EXPLOSION : This material is capable of creating a dust explosion. Keep away from heat, sparks & flame.

STORAGE : Keep container in cool and dry area.

HYGIENIC PRACTICES : Avoid inhalation and ingestion. Avoid getting in eyes, on skin or clothing. Wash hands thoroughly after handling, and before eating, drinking, or smoking.

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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE LIMITS : ACGIH TLV= 10mg/m<sup>3</sup>(Total dust) , 3mg/m<sup>3</sup>(Respirable fraction)  
OSHA PEL= 15mg/m<sup>3</sup>(Total dust), 5mg/m<sup>3</sup>(Respirable fraction)

ENGINEERING CONTROLS : Maintain adequate ventilation.

EYE PROTECTION : Not required under intended use.

SKIN PROTECTION : Not required under intended use.

RESPIRATORY PROTECTION : Not required under intended use.

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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Fine solid powder  
COLOR : Black  
SCENT : Odorless  
MELTING POINT : 110 - 150 degree (Softening point)  
SPECIFIC GRAVITY(H<sub>2</sub>O = 1) : 1.1 - 1.5  
VAPOR PRESSURE (mg Hg.) : Not applicable  
VAPOR DENSITY (AIR = 1) : Not applicable  
EVAPORATION RATE : Not applicable  
SOLUBILITY IN WATER : Negligible  
pH VALUE : Not a water-based product, therefore not applicable.

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SECTION 10 STABILITY AND REACTIVITY

STABILITY : Stable  
INCOMPATIBILITY : Not identified.  
HAZARDOUS DECOMPOSITION PRODUCTS : Carbon monoxide and carbon dioxide.  
HAZARDOUS POLYMERIZATION : Will not occur.

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SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY : LD50 is greater than 2,500mg/kg.  
(This was the highest attainable mass.)  
ACUTE INHALATION : LC50(4H) is in excess of 5.18mg/l.  
(This was the highest attainable concentration.)  
EYE IRRITATION : Non-irritant.  
SKIN IRRITATION : Non-irritant.  
SKIN SENSITIZATION : Non-sensitizer.  
MUTAGENICITY : Negative in the Ames test.  
CARCINOGENICITY :  
In 1996, the IARC classified carbon black as a GROUP 2B carcinogen (possible human carcinogen).

CHRONIC EFFECTS:

In study in rats by 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/m<sup>3</sup>) exposure group, and a minimal to mild degree of fibrosis was noted in 22% of the animals in the middle (4mg/m<sup>3</sup>) exposure group. These findings are attributed to "lung overloading", a general response excessive amounts of any dust retained in the lungs for a prolonged period.

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SECTION 12 ECOLOGICAL INFORMATION

AQUATIC ENVIRONMENT : LC50 is greater than limit of saturation. (fish)  
: EC50 is greater than limit of saturation. (daphnia)  
: Algal Growth Inhibition limit of saturation.

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SECTION 13 DISPOSAL CONSIDERATION

Dispose of in accordance with local, state and federal regulation.  
Empty plastic container may be recycled.

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SECTION 14 TRANSPORT INFORMATION

SPECIAL PRECAUTIONS : None

INTERNATIONAL TRANSPORT INFORMATION :

UN CLASSIFICATION NUMBER : Not applicable  
DOT IDENTIFICATION NUMBER : Not applicable  
DOMESTIC TRANSPORTATION : Not applicable  
OTHER INFORMATION : Not applicable

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SECTION 15 REGULATORY INFORMATION

IARC : See section 11.

US/CANADA INFORMATION :

OSHA HAZARD COMMUNICATION STANDARD, 29CFR 1910. 1200 : Not regulated.

TOXIC SUBSTANCE CONTROL ACT(TSCA) :

All chemical substances in this product comply with all applicable rules or orders under TSCA.

RCRA (40 CFR 261) : Product or components not listed.

CERCLA/SARA information : Not regulated.

NTP ANNUAL REPORT ON CARCINOGENS : Not listed as an NTP carcinogen.

CALIFORNIA PROPOSITION 65 :

Neither toner, nor any of the components, are listed as chemicals known to the State of California to cause cancer or reproductive system effects.

CONTROLLED PRODUCTS REGULATIONS(CANADA) :

This product has been classified in accordance with the hazard criteria of the CPR.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CANADA) :

No toxicology information available.

OTHER STATE REGULATIONS :

Carbonblack is listed in the New Jersey Right to Know List, Pennsylvania Hazardous Substance List, and Massachusetts Substance List.

U.S./CANADA LABEL STATEMENTS :

LOW HAZARD FOR RECOMMENDED HANDLING. Minimize dust generation and accumulation. Use with adequate ventilation.

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SECTION 16 OTHER INFORMATION

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CLASSIFICATION :

Flammability : 1      Reactivity : 0      Health : 0  
( 0=insignificant, 1=slight )

HAZARDOUS MATERIALS INFORMATION SYSTEMS (HMIS) :

Red(Flammability):1      Yellow(Reactivity):0      Blue(Acute Effects):0  
( 0=insignificant, 1=slight )

REFERENCES:

IARC(1996) IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Humans, Vol. 65, Printing Process and Printing Inks, Carbon Black and Some Nitro Compounds. Lyon, PP.149-261.

H.Muhle, B.Bellmann, O.Creutzenberg, C.Dasenbrock, H.Ernst, R.Kilpper, J.C.Mackenzie, P.Morrow, U.Mohr, S.Takenaka and R.Mermelstein (1991) Pulmonary Response to Toner upon Chronic Inhalation Exposure in Rats. Fundamental and Applied Toxicology 17, pp.280-299.

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Information on this data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions.