Material Safety Data Sheet

Date: May 16, 2005
Revised on: ---

1.Identification of the product and of the company / undertaking

Product Identity: PFPE1251ZA, PFPE1462ZA, KX-FA92, KX-FA54A, KX-FA54X, KX-FA54E
Printer Model: KX-FC235, KX-FC245
Company name: DAI NIPPON PRINTING CO., LTD.
Address: 2-5-1, Hirosedai, Sayama, Saitama, 350-1328 JAPAN
Contact Person: Takumi Horii
Telephone: +81-42-952-9666

2.Composition / information on ingredients

Chemical Characterization	Weight % (about)	CAS.NO.
Polyethylene terephthalate	47~ 52%	25038-59-9
Carbon black	7~ 10%	1333-86-4
Ester wax	2~ 7%	8015-86-9
Paraffin wax	10~ 14%	8002-74-2
Microcrystalline wax	16~ 22%	63231-60-7
Others	2~ 11%	---

3.Hazardous identification

No danger at normal use.

4.First aid measures

Inhalation: Not applicable
Eye contact: Immediately flush eyes with plenty of water. If necessary, then care for medical attention.
Ingestion: Immediately make vomit and rinse mouth with water. If necessary, then care for medical attention.
Skin contact: Usually special care is not necessary. If it dirty skin, clean with soap and water.

5.Fire fighting measures

Extinguishing media: CO2, water, dry chemicals and foam.
For large quantities (i.e. truckload or pallet) involved in a fire, firefighters should wear self-contained breathing apparatus and protective clothing.

6.Accidental release measures

Rumpling the product may cause the wax layer to peel off. Sweep up or vacuum. When sweeping, avoid raising film or dust. If a vacuum is used, motor should be rated as dust tight. Wash any residue off skin with soap and water. Garments may be wasted or dry-cleaned after removal of loose film or dust.
First aid sees item 4.

7.Handling and storage

No special precautions for safety reason.
Store in cool, dry space, and avoid direct sunlight.

8.Exposure controls / personal protection

Recommended Exposure Limits: Not applicable
Work/ Hygienic Practices: None
Personal Protection: None
Technical Protection: None

9.Physical and chemical properties

Appearance and odor: Ink is black solid with slight odor.
Melting Point: About 71℃ for ink
Flash Point: About 250℃ for ink
Specific Gravity(H2O=1): About 1.2
Vapor Pressure(mmHg): Not applicable
Vapor Density(AIR=1): Not applicable
Evaporation Rate: Negligible
Flammable Limits: Not applicable
Explosion Limits: Not applicable
Solubility in Water: Negligible

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10.Stability and reactivity

Stability:	Stable
Conditions to Avoid:	None
Incompatibility(Materials to Avoid):	None
Hazardous Decomposition or Byproducts:	CO, CO2, NOX and H2O etc
Hazardous Polymerization:	Will not occur

11. Toxicological information

No health hazards under normal use conditions.

Inhalation:	Not applicable
Swallow:	Possible but very unusual
Skin irritation:	No
Eye irritation:	No
Mutagenicity:	Ames Test : Negative

Carcinogenicity:

NTP	No
IARC Monographs	Carbon Black: Group 2B
OSHA Regulated	No

In 1996 the International Agency for Research on Cancer (IARC) reevaluated carbon black as a group 2B carcinogen (possible human carcinogen), based upon the development of lung tumors in rats receiving chronic inhalation exposures to free carbon black. The effects were observed only in animals exposed to high concentrations of carbon black at levels that induce particle overload of the lung. Studies performed in animal models other than rats have not demonstrated an 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. Epidemiology studies of workers in the carbon black producing industries of North America and Western Europe do not demonstrate an association between carbon black and cancer, even in high exposure occupational settings. In addition, in its reevaluation of carbon black, IARC concluded "there is inadequate evidence in humans for the carcinogencity of carbon black." Chronic over exposure to many dusts, including carbon black dust, may result in respiratory tract irritation and slight changes in lung function.

12. Ecological information

No environmental effect at normal use.

13. Disposal considerations

Dispose by the same method of ordinary plastic products in accordance with all applicable regulations.
Any disposal practice must be in compliance with local, state and federal laws and regulations. If necessary, contact government office and ensure conformity with disposal regulations.

14. Transport information

No specific precautionary transport measures for safety reasons.
Storage conditions see item 7.

15. Regulations

None

16. Other information

The information herein is given in good faith, but no warranty, if used any process.
Final determination of suitability of any material is the sole responsibility of the user.
Although certain information is described herein, we cannot guarantee that these are the only hazard, which exist.
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.