

Material Safety Data Sheet
in accordance with EC Directive
91/155/EEC



XEIKON FA-Toner

1. Identification of the Substance and of the Company

1.1 Identification of the Substance or Preparation

| | |
|-------------------------|-----------------------------|
| Xeikon FA-toner Cyan | Product Code : 63729 |
| Xeikon FA-toner Magenta | Product Code : 63730 |
| Xeikon FA-toner Yellow | Product Code : 63731 |
| Xeikon FA-toner Black | Product Code : 63732-122007 |

1.2 Use of the Substance/Preparation :

Marking material for XEIKON high speed digital colour Printer

1.3 Manufacturer / Supplier Identification

| | |
|-------------------------------|---------------------------|
| PUNCHGRAPHIX INTERNATIONAL NV | PUNCHGRAPHIX AMERICAS Inc |
| Duwijckstraat 17 | 1375 E Irving Park Rd |
| B-2500 Lier - Belgium | Itasca, IL 60143 |
| Tel. : (+32)-3-443.13.11 | Tel. : (1)-877-934-5667 |
| Fax : (+32)-3-443.13.09 | Fax : (1)-630-438-7916 |

For Information call :

Phone No. : (+32)-3-443.13.11

Emergency Phone No. : (+32)-3-443.13.11

2.Composition / Information on Ingredients

Substance or Preparation : Preparation

| Ingredients Common Name CAS number | Content (%) | EINECS/ ELINCS | Symbol | R-Phrase |
|---|----------------|-------------------|----------------|-------------------------|
| All toner formulations | | | | |
| Polyester Resin 41259-36-3 | 15-60 | Not applicable | Not applicable | Not applicable |
| Polyester Resin 142843-99-0 | 15-60 | Not applicable | Not applicable | Not applicable |
| Organic Salt 42405-40-3 | <1 | - 403-360-0 | F, Xn, N | R11, R22, R50/53 (1) |
| Colour Specific | | | | |
| Organic Pigment Yellow 76199-85-4 | 2-7 | | Not applicable | Not applicable |
| Organic Pigment Carbon Black 1333-86-4 | 2-7 | | Not applicable | Not applicable |
| Organic Pigment 1 Magenta 980-26-7 | 2-7 | | Not applicable | Not applicable |
| Organic Pigment 2 Magenta 5280-68-2 | 2-7 | | Not applicable | Not applicable |
| Organic Pigment Cyan 147-14-8 | 1-7 | | Not applicable | Not applicable |
| Inorganic Pigment in Cyan 68611-44-9 | 1-5 | | Not applicable | Not applicable |

The full text of each relevant R phrase are listed at heading 16.

(1): The toner contains less than 0.1% free zinc.

Material Safety Data Sheet

in accordance with EC Directive
91/155/EEC



Printed: 24.10.08

Revised: 17.10.08

Revision: 06

Page 2 of 7

XEIKON FA-Toner**3. Hazards Identification**

This preparation is not classified as dangerous according to Directive 1999/45/EC.

This preparation is not classified as dangerous according to Directive 76/769/EEC.

Carcinogenicity :**Cyan, Yellow, Magenta toner :**

This product does not contain the carcinogenic substances which are listed in NTP, IARC and are regulated by OSHA

Black toner :

Carbon Black was reclassified as a Group 2B by IARC in 1996 based on the result of only the inhalation study in rats. However there was not observed the incidence of tumours on the test results on dermal or oral studies. Also 2-years inhalation study using a typical toner containing carbon black showed no association between toner exposure and animal tumours.

Environmental Effects :

Not applicable in normal use.

Physical and Chemical Hazards :

Not applicable in normal use.

4. First Aid Measures

Immediate medical attention is not required.

Inhalation

Gargle with water, move to place in fresh air. If unsuccessful, get medical attention.

Skin Contact

Wash thoroughly with soap and water.

Eve Contact

Immediately wash eyes with plenty of water. If unsuccessful, get medical attention.

Ingestion

Dilute stomach contents with several glasses of water. If unsuccessful, get medical attention.

Material Safety Data Sheet
in accordance with EC Directive
91/155/EEC



Printed: 24.10.08
Revised: 17.10.08
Revision: 06
Page 3 of 7

XEIKON FA-Toner

5. Fire Fighting Measures

Extinguishing Media

CO₂, dry chemicals, foam or water.

Specific Method

Generally by sprinkling or extinguisher.

Special Protective Equipment for Fire-Fighters

Wear full bunker gear in case of burning in large quantities.

Sensitivity to static discharge

Avoid dusting: like most organic material in powder form, this material is capable of creating a dust explosion.

6. Accidental Release Measures

Personal Precautions

Avoid prolonged or repeated contact with skin. Minimize inhalation of dust.

Environment Precautions

Keep product out of sewers and watercourses.

Methods for Cleaning Up

If spilled, sweep up or pick up by vacuum cleaner (rated for toner extraction). Remove residue with soap and water.

7. Handling and Storage

7.1 Handling (technical measures, precautions, safe handling material)

Minimize skin contact.

Flying powder may enter eyes.

Minimize breathing dust.

Supply good ventilation.

7.2 Storage (technical measures, storage conditions, packaging material)

Avoid direct sunlight.

Do not keep this over 35 degrees centigrade.

Do not put on the ship's deck.

Keep out of reach of children.

7.3 Specific Use(s)

Only for Xeikon high speed digital Colour Printers

Material Safety Data Sheetin accordance with EC Directive
91/155/EEC

Printed: 24.10.08

Revised: 17.10.08

Revision: 06

Page 4 of 7

XEIKON FA-Toner**8. Exposure Controls / Personal Protection****8.1 Exposure Limit Values :**no special technical measures. No personal protective equipment needed. Threshold Limit Value
nor nuisance dust: 3.5mg/m³**8.2 Exposure Control :****8.2.1 Occupational Exposure Control****8.2.1.1 Respiratory Protection :**None required under normal conditions of use. The mean particle size (Dv50) of this toner is 8
micron**8.2.1.2 Hand Protection :**

Wear gloves.

8.2.1.3 Eye Protection :

None required under normal conditions of use.

8.2.1.4 Skin and Body ProtectionTo prevent any contact, wear impervious clothing such as gloves, apron, boots, or whole body
suits.**8.2.2 Environmental Exposure Control :**

No precautions should be needed under normal use.

9. Physical and Chemical Properties**9.1 General Information**

Form : Powder

Colour : Black, Cyan, Yellow, Magenta or White (depending upon the toner formulation)

Odour : Slightly plastic odour

9.2 Important Health, Safety and Environmental Information

pH : not applicable Measuring Concentration(%) : -

Boiling Point(°C) : not applicable

Flash Point(C): not applicable

Flammability : Not flammable

Explosion Properties : This product is considered a non explosive material under
normal use condition.Oxidising Properties : This product is considered a non oxidizing material under
normal use condition.

Evaporation Rate(Butyl acetate=1): not applicable

Vapour Pressure(Pa) : not applicable Measuring Temp.(°C)

Vapour Density(AIR=1) : not applicable

Material Safety Data Sheetin accordance with EC Directive
91/155/EEC**XEIKON FA-Toner**

Density (g/cm³) : approx.1,2 Measuring Temp.(°C) :25
Viscosity : not applicable Measuring Temp.(°C) : -

Solubility

Water Solubility (g/L) : Insoluble Measuring Temp.(°C) : -
Other Solvent name : not available
Other Solvent Solubility(g/L) : - Measuring Temp.(°C) : -
Octanol/Water Partition Coefficient: not available

9.3 Other Information

Melting pointy (°C) : approx. 110°C

10. Stability and Reactivity**10.1 Conditions to Avoid :**

Not applicable in normal use.

10.2 Materials to Avoid :

Not applicable in normal use.

10.3 Hazardous Decomposition Products :

not applicable

11.Toxicological Information**Acute Toxicity**

Acute Oral Toxicity (LD50) Rat : 5000 mg/kg or over
Acute Dermal Toxicity : not available
Acute Inhalation Toxicity : not available

Sensitization

Acute Skin Irritation (PII) : non-irritant
Acute Eye Irritation : not available
Acute Allergenic Effects : non-skin sensitive

Specific Effects**Carcinogenicity :**

In 1996 IARC reevaluated Carbon Black as a Group 2B carcinogen (possible human carcinogen). This evaluation is given to carbon black for which there is inadequate human evidence, but sufficient animal evidence. The latter is based upon the development of lung tumours 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 have not demonstrated an association between carbon black and lung tumours. Moreover, 2-years cancer bioassay using a typical toner preparation containing carbon black did not demonstrate an association between toner exposure and tumour development in rats.

For other colours : No data available

Material Safety Data Sheet
in accordance with EC Directive
91/155/EEC

Printed: 24.10.08

Revised: 17.10.08

Revision: 06

Page 6 of 7



XEIKON FA-Toner

Mutagenicity :

No data is available

Effects on The Reproductive System :

No data is available on this product.

Teratogenic :

not available

12. Ecological Information

12.1 Ecotoxicity

Acute Toxicity for Fish (LD50) : over 500 mg/l (mg/l/96hr)

Acute Toxicity for Daphnia (EC50) : not available (mg/l/48hr)

Algae Inhibition Test (IC50) : not available (mg/l/72hr)

12.2 Mobility :

not available

12.3 Persistence / Degradability :

not available (deinkability = ability to recycle the printed paper : OK)

12.4 Bioaccumulation Potential :

not known in bioaccumulation

12.5 WGK classification

Classification according to the "Verwaltungsvorschrift wassergefahrende Stoffe"

WGK 1: low hazard to waters.

The zinc compound in this toner is embedded in a polymermatrix. Less than 0.1% zinc is not embedded.

12.6 Other Adverse Effects :

Not available

13. Disposal Consideration

Recommended Methods for Safe Environmentally Preferred Disposal:

Used toner should be disposed of in an environmentally appropriate manner and in accordance with governmental regulations. Do not incinerate.

14. Transport Information

International Regulations

RID/ADR : not applicable

DOT 49 CFR : not applicable

ADNR : not applicable

Material Safety Data Sheetin accordance with EC Directive
91/155/EEC

Printed: 24.10.08

Revised: 17.10.08

Revision: 06

Page 7 of 7

XEIKON FA-Toner

IMDG Code : not applicable
ICAO TI/ IATA DGR : not applicable
The UN Classification Number : not applicable

Specific Precautionary Transport Measures

Avoid direct sunlight. Do not keep this over 35 degrees centigrade. Do not put on the ship's deck.

Specific Materials to Avoid :

None in normal use.

15. Regulatory Information**Regulations**

This preparation is not classified as dangerous according to Directive 1999/45/EC.

This preparation is not classified as dangerous according to Directive 76/769/EEC.

16. Other Information**The full Text of R-Phrases Referred to under Heading 2 and 3 :**

R11:Highly flammable.

R22:Harmful if swallowed.

R50/53:Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

FDA Status of FA Toner Formulation : (for more detailed information : info@punchgraphix.com)

The study was done and the opinion was formulated by the company Keller and Heckman LLP (Washington), based on the detailed compositions of the tonerformulations. These opinions were formulated on September 6th 1999, December 9th 2004, August 12th 2005, March 16th 2006 and Septemeber 7th 2006.

The FA Yellow, Magenta, Cyan and Black toners may be used on the non-food contact side of food packaging materials that act as functional barriers when they are intended to contact food under room temperature and less severe conditions, and such use may properly be said to comply fully with the Act and all applicable food additive regulations.

References:

1)IARC(1996) "IARC Monograph 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

2)H.Muhle, B.Bellman, O.Creutzenberg, C.Dasenbrock, H.Emst, 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,pp280-299

Note :

The data given is based on the current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the product properties.