



black showed no association between toner exposure and animal tumors.

Environmental Effects
Not applicable in normal use.

Physical and Chemical Hazards
Not applicable in normal use.

The Classification of The Chemical Product
Not applicable

4. First-Aid Measures

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

Skin Contact
Wash thoroughly with soap and water.

Eye Contact
Try to remove with eye drops or flush with water. If unsuccessful, get medical attention.

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

5. Fire-Fighting Measures

Extinguishing Media
CO₂, dry chemicals, foam or water.

Specific Method
Generally by sprinkling or extinguisher.

6. Accidental Release Measures

Personal Precautions
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

Handling (technical measures, precautions, safe handling material)



Do not handle in areas where wind blows.
Flying powder may enter eyes.
Minimize breathing dust.

Storage(technical measures,storage conditions,packaging material)

Avoid direct sunlight.
Do not keep this over 35°.
Keep out of reach of children.

8.Exposure Controls/Personal Protection

Respirator Protections

None required under normal conditions of use.

Hand Protection

None required under normal conditions of use.

Eye Protection

None required under normal conditions of use.

Skin and Body Protection

None required under normal conditions of use.

9.Physical and Chemical Properties

Physical State

Form :Powder
Color:Black
Odour:Slightly plastic odor

Information

| | | | |
|--------------------------|---|---------------------|-----|
| pH | :not applicable | Measuring Temp.(°C) | :- |
| Boiling Point(°C) | :not applicable | | |
| Flash Point(°C) | :not applicable | | |
| Explosion Properties(°C) | :This product is considered a nonexplosive material under normal use condition. | | |
| Vapor Pressure(Pa) | :not applicable | Measuring Temp.(°C) | :- |
| Vapor Density(AIR=1) | :not applicable | | |
| Density (g/cm3) | :approx. 1.2 | Measuring Temp.(°C) | :25 |

Solubility

Water Solubility(g/L) :Insoluble
Water Solubility Measuring Temp.(°C) :-
Other Solvent name :-
Other Solvent Solubility(g/L) :-
Other Solvent Solubility Measuring Temp.(°C):-

Octanol/Water Partition Coefficient

not known



10. Stability and Reactivity

Conditions to Avoid

Not applicable in normal use.

Materials to Avoid

Not applicable in normal use.

Hazardous Decomposition Products

carbon monoxide and other decomposition product may occur in case of incomplete combustion
Styrene

11. Toxicological Information

Acute Toxicity

Acute Oral Toxicity

LD50: >=5000mg/kg

Acute Dermal Toxicity

:not available

Acute Inhalation Toxicity

:not available

Sensitization

Acute Skin Irritation :non-irritant

Acute Eye Irritation :not applied

Acute Allergenic Effects:non-skingsensitive

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 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 have not demonstrated an association between carbon black and lung tumors. Moreover, 2-years cancer bioassay using a typical toner preparation containing carbon black did not demonstrate an association between toner exposure and tumor development in rats.

Mutagenicity:negative(Ames test)

Effects on the Reproductive System:No data is available on this product.

Teratogenicity: not available

12. Ecological Information

Persistence/Degradability:not known

Bioaccumulation

Not known in bioaccumulation.



Ecotoxicity

- Acute Toxicity for Fish :>500 (mg/kg/96hr)
- Acute Toxicity for Daphnia :not available (mg/kg/48hr)
- Algae Inhibition Test :not available (mg/kg/72hr)

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

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°.

Specific Materials to Avoid

None in normal use.

15. Regulation Information

Regulations

not known

16. Other Information

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, pp149-261
- 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