

MATERIAL SAFETY DATA SHEET

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DAINIPPON INK & CHEMICALS INC.

Engineering Plastics Div.

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MATERIAL IDENTIFICATION

PRODUCT NAME **DIC-PPS FZ-2100 BLACK**

CHEMICAL NAME Mixture of Poly Phenylene Sulfide (PPS) and small amount of additives.

CAS REGISTRY NUMBER

Polyphenylenesulfide (PPS) : 25212-74-2 95~100wt.%.
Additive-1 : registered 1~10wt.%.
Additive-2 : registered MAX1wt.%

TSCA INVENTORY CLASS All reportable ingredients are listed in the TSCA Chemical Substance Inventory.

DOT HAZARD CLASS Not regulated.

SHIPPING NAME Not applicable.

PREPARER Technical department of Engineering Plastics Div.

Issued: November 10, 2006.

PHYSICAL/CHEMICAL DATA

APPEARANCE Granules.

COLOUR Black

ODOR None.

MELTING POINT 275-285 °C

SOLUBILITY IN WATER Insoluble.

VOLATILE CONTENT None known.

SPECIFIC GRAVITY 1.3~1.4

FIRE AND EXPLOSION HAZARD DATA

FLASH IGNITION TEMPERATURE Over 500°C, METHOD ASTM D1929.

FLAMMABILITY CLASSIFICATION V-0, METHOD UL-94.

UNUSUAL FIRE, EXPLOSION HAZARDS During a fire, irritating, toxic gases and aerosols may be generated by thermal decomposition and combustion.

SPECIAL FIRE FIGHTING INSTRUCTION Fire fighters should wear self-contained breathing apparatus to avoid inhalation of smoke or vapors.

EXTINGUISHING MEDIA Water, Carbon dioxide, Foam, Dry chemical and Sand.

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HAZARDOUS REACTIVITY

| | |
|----------------------------------|---|
| STABILITY AT ROOM TEMPERATURE | Stable. |
| MATERIALS TO AVOID | Not established. |
| CONDITIONS TO AVOID | Heating above 320°C for prolonged periods |
| HAZARDOUS DECOMPOSITION PRODUCTS | Thermal decomposition products include CO, SO ₂ and COS gas. |
| POLYMERIZATION | Will not occur. |

HEALTH HAZARD DATA

Facemask and protective clothes recommended for abnormal processing problems.

ACUTE OR IMMEDIATE EFFECTS: ROUTES OF ENTRY AND SYMPTOMS.

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|------------|--|
| INGESTION | Not a probable route of exposure. |
| SKIN | Molten polymer causes thermal burns. |
| EYE | Dust may cause a slight irritation and fumes from molten resin may be irritating to eyes. |
| INHALATION | Dust may causes a slight irritation and fumes from molten resin may causes irritating to throat, headache, dizziness and nausea. |

EMERGENCY FIRST AID

- If exposed to fumes from molten resin, move to fresh air. Consult a physician if symptoms persist.
- Wash skin with soap and plenty of water.
- Flush eyes with water. Consult a physician if symptoms persist.
- If molten resin contacts skin, cool rapidly with cold water. Do not attempt to peel resin from skin. Obtain medical attention for thermal burn.

CHRONIC EFFECTS

None known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None known.

PROTECTION INFORMATION

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| EYE | Safety glasses are required. |
| SKIN | Protective gloves are required when handling hot polymer. Also long sleeve cotton shirt and long pants if handling molten resin. |
| VENTILATION | Thermal processing equipment should be ventilated to control fumes and dust. Local exhaust at processing equipment to keep particulate below 15 mg/m ³ (OSHA limit for nuisance dusts). |
| RESPIRATOR | None under normal processing if ventilation is adequate. |
| WORK/HYGIENIC PRACTICES | Wash hands before eating, drinking, smoking or using toilet. |

DISPOSAL

| | |
|------------------------|---|
| SPILL, LEAK OR RELEASE | Sweep up to prevent a slipping hazard. |
| WASTE DISPOSAL | Landfill or incineration in compliance with federal, state, and local regulations. |
| AQUATIC TOXICITY | Toxicity is expected to be low based on insolubility of polymer in water. |
| STORAGE CONDITIONS | Cool, dry place. Keep containers tightly closed to prevent moisture absorption and contamination. |

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