MATERIAL SAFETY DATA SHEET

Manders Oil Inks Ltd.
P.O. Box 13, Old Heath Road
Wolverhampton WV1 2RS

Telephone (0902) 871028
Telex 338354
Fax (0902) 457461

29 November 1993

1. GENERAL DETAILS

1.1 Material Name: Sheetfed Process & Pantone Printing Inks (Not U.V.)

1.2 Reference Number: **

Manders Sheetfed printing inks will fall into one of the above ranges.
If this is not the case then the code numbers will be inserted into the space
above** ALSO INTERSTAR PROCESS AND PANTONE AND FORMAT INKS AND
CLIPPER PROCESS INKS AND PANTONE INKS

1.3 Product components

a) Pigment (M)  b) Phenolic, alkyd and 100% solid resins (M)
c) Manganese/cobalt driers (not Constat) (m)  d) PTFE/polyethylene wax
   (in most cases) (m)  e) Aliphatic pet. distillate or linseed oil (M)

1.4 Hazardous components

None

CAS number  O.E.L.  LD50

1.5 All Manders Printing Inks, Coatings and varnishes are suitable for
   the printing of food wrappers as long as the product does not come into
direct contact with food.

1.6 Suitability for printing within Toy Regs EN71 part 3/ BS5665 part 3:-
   Not Warm Red of range. Use 032 Red as an alternative.

1.7 Other:

2. HAZARD AND LABELLING SUMMARY (according to CPL regulations)

2.1 Label: None required  S.I.N.: N/A  Nature of risk: N/A

2.2 Risk phrases:

None required

2.3 Safety phrases:

None required

2.4 Hazard rating:

Health=1
Flammability=1
Reactivity=U

Other:

Health
Flammability
Reactivity

0 = none
1 = slight
2 = moderate
3 = high
U = unknown

Total Capability in Printing Inks
Registered Office: P.O. Box 186, Wolverhampton WV1 2OT.
3. HANDLING

3.1 Wear safety gloves: Yes 3.2 Wear protective clothing: N/A
3.3 Wear goggles: N/A 3.4 Use local exhaust ventilation: N/A
3.5 Avoid static electricity: N/A 3.6 Use respiratory protection: N/A
Other: Use normal standards of hygiene i.e. overalls.

4. HEALTH HAZARD, EMERGENCY AND FIRST AID

4.1 Inhalation: No inhalation hazard known.

4.2 Ingestion: Unlikely in normal use but in case of ingestion do not induce vomiting. Seek medical advice.

4.3 Skin contact: Remove contaminated clothing and wash affected area with mild soap and water.

4.4 Eye contact: Flush eye with plenty of clean, low pressure water for at least 10 mins. If irritation persists seek medical advice.

Other: This product presents minimal health hazard. However, avoid contact with skin, eyes and mouth.

5. FIRE HAZARD

5.1 Flash point: Approx 135°C 5.2 Autoignition temp: Approx 280°C
5.3 Flammability classification UK: Combustible EEC: N/A
5.4 Explosion limits - Lower: N/A Upper: N/A
5.5 Extinguishing media: Foam, CO2, and dry chemical

Other: In the event of fire dangerous fumes may evolve therefore wear appropriate breathing equipment.

6. PHYSICAL DATA

(i) Physical state: Paste (ii) Odour: Mild

7. STORAGE

Protect from frost. Store under stable conditions from all sources of ignition.

8. SPILLAGE AND DISPOSAL

General: KEEP AWAY FROM DRAINS. Spillages should be covered with an absorbent material such as Vermiculite. The absorbent material may become highly flammable because of absorbed solvents and must be disposed of according to local authority instructions.

Other: