Tokyo, <u>Jul. 28</u>, 1994

TO: BROTHER INDUSTRIES, LTD.

ELECTRONIC PRODUCTS DIV.

RE : MATERIAL SAFETY DATA SHEET

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MSDS for double face polyester tape WFT No.763Z(P-touch)

1. Product identification

Manufacturer's name;

TERAOKA SEISAKUSHO Co., Ltd.

No.4-22. 1-CHOME, HIROMACHI, SHINAGAWA-KU, TOKYO, JAPAN.

Description of product:

Pressure sensitive adhesive tape consisting of carrier of polyester film coated on both sides with a thermosetting pressure sensitive adhesive comprising synthetic acrylic resin, takifing resins and anti-oxydant.

Trade name:

TAPE COLOR	TAPE WIDTH				
	5.8 mm	8.8 mm	11.8 mm	17.8 mm	23.8 mm
CLEAR	320401-094	320401-095	320401-096	320401-097	320401-098
WHITE	320401-099	320401-100	320401-101	320401-102	320401-103
BLUE	320401-104	320401-105	320401-106	320401-107	320401-108
RED	320401-109	320401-110	320401-111	320401-112	320401-113
YELLOW	320401-114	320401-115	320401-116	320401-117	320401-118
GREEN	320401-119	320401-120	320401-121	320401-122	320401-123
FLUORESCENT YELLOW			320401-124	320401-125	
FLUORESCENT GREEN			320401-126	320401-127	
FLUORESCENT ORANGE			320401-128	320401-129	

Product use:



2. Hazardous ingredients

There are no hazardous ingredients present in the mixture of substances, composing the tape. There is no evidence of any hazards to health when used according to the normally accepted safe processing procedures.

3. Physical data for product.

Physical state ;solid

Odour ;slight acrylic monomer odour

Odour threshold ;not applicable

Specific gravity :1.01

Vapour pressure ;essentially non-volatile

Vapour density ;not applicable
Evaporation rate ;not applicable
Boiling point ;not applicable

Freezing point ;not applicable

Solubility in water (20°) ;negligible

H ;not applicable

Co-efficient of water/oil distribution ; not applicable

Density ;1.01

4. Fire and explosion hazard.

Flammability ; by direct contact with naked flames

influenced by the possible presence of

small quantities of residual

hydrocarbon solvents

Means of extinction ; water spray, dry powder or carbon dioxide

Special procedures ; respiratory and eye protection required for

fire fighting personal

Flashpoint ;not less than 300°C

Upper explosion limit ;not applicable

Lower explosion limit ;not applicable
Auto ignition temperature ;not applicable

Flammability classification ;none

Hazardous combustion products ; carbon dioxide, carbon monooxide and smoke

Explosion data ;not applicable

Sensitivity to static discharge ; none



5. Reactivity data

Chemical stability
Incompatibility to other substance

Reactivity
Hazardous decomposition

certain oxidation catalysts such as cobalt naphtenate or strong oxidizing agent e.q. peroxides can initiate a rapid oxidation causing heating and possibly a fire limited chemical reactivity above 200°C, it will start to decompose finally emitting vapours which may be noxious, irritating or flammable

6. Toxicological properties and product

-Route of entry

Due to high molecular weight of the composing materials, (subsequently a low vapour pressure) during the normal handling of product, there is no evidence of hazard caused by

- -skin absorption
- -eye contact
- -inhalation acute or chronic
- -ingestion

Sensitization to material

At long durations of skin contact, a small percentage of individuals may develop an allergy for the product, similar to the effect of adhesive plasters. There is no evidence that the product has any effect on the health of workers handling it in the normal way.



7.Preventive measures

Personal protective equipment

;not required at ambient temperatures.

Engineering control

Prevent contact with the eyes.

;When heating organic substances to

about 500°C, with or without partial exclusion of air, a good working practice is to use a local extraction system for removing the

combustion/volatile products.

This practice is recommended for

TERACKA TAPE No. 763Z.

Leak and spill procedure

Waste disposal

;not applicable

;ensure conformity to local disposal

regulations.

Strage requirements

store dry at about 18°C, to maintain the optical properties.

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Special shipping information

;not classified

8. First aid measures

Skin

; wash with soap and water

Eyes

:wash with water

9. Preparation date of MSDS

Chief Engineer

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