1. Identification of Substance / Preparation and of the Company / Undertaking

1.1 Product details

1.1.1 Product Name(s) : TN-200 Toner, TN-300 Toner and TN-8000 Toner

1.1.2 Product Code : Toner N3

These products are non-magnetic single component toner in a cartridge for Brother Industries Ltd. page printers and fax receivers.

1.2 Company details

1.2.1 Manufacturer : Brother Industries, Ltd.
Information & Document Company
1-1-1, Kawagishi, Mizuho-ku,
Nagoya 467-8562, Japan
Telephone (for information): +81-52-824-2735

1.2.2 Supplier : Brother International Europe Ltd.
Brother house, 1 Tame Street, Guide Bridge,
Audenshaw, Manchester M34 5JE, UK
Telephone (for information): +44-161-330-6531

We do not provide 24 hour cover for information contact. Please telephone to the above office appropriate to you during our business hours.

2. Composition / Information on Ingredients

2.1 Chemical characterization

2.1.1 CAS number : –

2.1.2 Identification No. : –

2.2 Chemical characterization (preparation)

2.2.1 Description : Mixture of Polyester resin, Carbon Black and Additives

2.2.2 CAS number :

2.2.3 Composition :

Polyester resin CAS No. 117581-13-2	: 80-85%
Styrene-Acrylate resin CAS No. 133350-42-2	: 5-10%
Carbon Black (bound) CAS No. 1333-86-4	: 3-4%
Dyes CAS No. 8005-02-5	: 2-3%
Wax CAS No. 9010-79-1	: 1-2%

3. Hazardous Identification

3.1 Special hazard information : –

(R-phrase)

4. First Aid Measures

4.1 General Information : Inhalation; Remove to fresh air if effects occur. Consult local medical personnel.
Eyes; In case of contact, immediately flush eyes with plenty of water.

5. Fire-fighting Measures

5.1 Suitable extinction medium : Water spray, Foam, Dry chemicals and CO_2

6. Accidental Release Measures

6.1 Personal precautionary measure : See first aid measures.
6.2 Environmental protection measure : Waste materials to be disposed of according to regulations.
6.3 Clean up measure : Sweep up or clean up with a vacuum cleaner.
6.4 Additional information : –

7. Handling and Storage

7.1 Handling
7.1.1 Safety data : –
7.1.2 Fire and explosion hazard data : These materials have no unusual fire or explosion hazard.

7.2 Storage
7.2.1 Storage details : No special storage requirements for safety reasons.
7.2.2 Storage classification : –

8. Exposure Controls / Personal Protection

8.1 Personal safety

No personal protective device is required under the normal use.
In case that some accident causes considerable spill, the following measures are suggested.

8.1.1 Breathing protection : Use a NIOSH/MSHA approved dust/mist respirator
8.1.2 Hand protection : Use suitable protective gloves.
8.1.3 Eye protection : Use protective goggles.
8.1.4 Body protection : Use protective suits.

9. Physical - and Chemical Properties

9.1 Appearance
9.1.1 Physical state : Solid (Powder)
9.1.2 Color : Black
9.1.3 Odor : None

9.2 Relevant safety data

Property	Unit	Method of analysis
9.2.1 Change of state	–	
9.2.1.1 Melting point / area	Not applicable	
9.2.1.2 Boiling point / area	Not applicable	
9.2.2 Flash point	–	
9.2.3 Specific gravity	1.2	
9.2.4 Solubility	Insoluble in water	
9.2.5 pH-value	–	
9.2.6 Viscosity	–	
9.2.7 Solvent content	0%	

9.3 Additional information –

10. Stability and Reactivity

10.1 Storage conditions to avoid : –

10.2 Products to avoid : –

10.3 Dangerous decomposition products : Phenol derivatives, Carbon monoxide when heated at high temperature (>300°C)

10.4 Additional information : –

11. Toxicological Information

11.1 Classification of LD_{50} value : >2500mg/kg (Data on similar product)

11.2 Primary irritation : non-irritant

11.3 Sensitization : not sensitive

11.4 Mutagenicity : Negative (AMES Test; Salmonella typhimurium, Escherichia coli; Data on similar product)

11.5 Carcinogenicity : In 1996, the 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 rat receiving chronic inhalation exposures to free carbon black at level 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, a two-year cancer bioassay using a typical toner preparation containing carbon black demonstrated no association between toner exposure and tumor development in rats.

12. Ecological Information

12.1 Details of breakdown

12.1.1 Method of decomposition : –

12.1.2 Analytical method : –

12.1.3 Degree of decomposition : –

12.1.4 Text book value : –

12.2 Additional information

	date	unit	comment
12.2.1 COD-value		–	
12.2.2 BOD5-value		–	

13. Disposal

13.1 Recommended Method of disposal : If recycling is not possible, dispose in accordance with local waste-disposal regulations.

Disposal code number : –

14. Transport

14.1 General comment : It is not a dangerous product according to transport regulations

15. Regulatory Information

15.1 In accordance with EC regulations

15.1.1 Classification, packaging and labeling description : –

15.1.2 R-phrases : –

15.1.3 S-phrases : –

15.2 In accordance with national regulations

15.2.1 Water hazard class : 2

15.2.2 Additional information : –

16. Other Information

This document is based on our knowledge at the time of preparation. While Brother Industries, Ltd. believes that the data contained herein are accurate, many of the data have been derived from outside sources and we cannot assume any liability as to the accuracy of the data. They are offered solely for your information.

This document covers only normal conditions of use and handling. When using product under unintended conditions, user is responsible to examine proper precautions for any particular use.

End of MSDS No.: YL4TE003