

Product name: TN-310C, TN-315C, TN-318C, TN-320C, TN-325C, TN-328C, TN-340C, TN-345C, TN-348C, TN-370C, TN-375C, TN-378C Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: CT403-01-EUUSOTHER

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1	Product	identifier
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Product name	TN-310C, TN-315C, TN-318C, TN-320C, TN-325C, TN-328C, TN-340C, TN-345C, TN-348C,
	TN-370C, TN-375C, TN-378C Toner

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified Use(s)	These products are cyan toner in a cartridge for Brother Industries, Ltd. laser printers, multifunction
	devices and fax receivers. The cartridge should be used as supplied by Brother and for use in the
	products stated. Information provided on this SDS is only consistent with the use specified by
	Brother.

### 1.3 Details of the supplier of the safety data sheet

Manufacturer	Brother Industries, Ltd. 15-1 Naeshiro-cho, Mizuho-ku, Nagoya 467-8561, Japan Telephone (for information): +81-52-824-2735
Importer (USA)	Brother International Corporation 200 Crossing Boulevard, Bridgewater, NJ 08807, USA Telephone (for information): +1-877-276-8437
Importer (Canada)	Brother International Corporation (Canada) Ltd. 1 Hotel de Ville, Dollard des Ormeaux, Quebec, H9B 3H6, Canada Telephone (for information): +1-514-685-0600
Importer (Europe)	Brother International Europe Ltd. Brother House, 1 Tame Street, Guide Bridge, Audenshaw, Manchester M34 5JE, UK Telephone (for information): +44-161-330-6531
Importer (Australia)	Brother International (Aust.) Pty. Ltd. ACN 001 393 835 Level 3, Building A, 11 Talavera Road, Macquarie Park, NSW 2113, Australia Telephone (for information): +61-2-9887-4344
E-mail Address	sds.info@brother.co.jp
1.4 Emergency telephone number	
Emergency Telephone (24 hours)	CHEMTREC +1-703-527-3887 (International) +1-800-424-9300 (North America)

For France only: Antipoison Center telephone number: ORFILA +33-1-45-425-959



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### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Not classified as hazardous

Classification according to Directive 1999/45/EC

Not classified as hazardous

### Australia Classification

Not classified as hazardous according to the criteria of NOHSC

### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms
None

Signal Word None

Hazard Statements None

Precautionary statements None

### 2.3 Other hazards

This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

Description of the mixture: Styrene-acrylate Toner (Mixture).

Chemical Name	CAS-No	EC-No	w/w%	Classification (EU Reg. 1272/2008)
Styrene-acrylate copolymer	25767-47-9	-	84-86	Not classified
Pigment	**	**	4-5	Not classified
Paraffin wax	8002-74-2	232-315-6	4-5	Not classified
PMMA	9011-14-7	-	1-2	Not classified
Fatty Acid Ester	**	-	1-2	Not classified
Silicon Dioxide (amorphous)	112945-52-5	231-545-4	1-2	Not classified
Silicon Dioxide (amorphous)	844491-94-7	430-570-1	0.5-1.5	Not classified
Styrene-acrylate Resin	**	-	0.1-1	Not classified

For the full text of R-phrases and H-Statements see Section 16

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### SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice	If symptoms persist, obtain medical attention.
Inhalation	Obtain immediate medical attention. In case of accident by inhalation remove casualty to fresh air and keep at rest.
Skin contact	Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and water.
Eye contact	Obtain medical attention. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.
Ingestion	Obtain immediate medical attention. Wash out mouth with water and give 100-200 ml of water to drink.
4.2 Most important symptoms and effects, both acute and delayed	Inhalation (dust): For large quantities: May cause irritation to the respiratory system. Increased difficulty in breathing. Sneezing. Coughing.
	Eye contact: May cause eye irritation.
	Ingestion: May cause stomach ache. Unlikely route of exposure.
4.3 Indication of any immediate medical attention and special treatment needed	Treat symptomatically.

### SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable Extinguishing Media	Extinguish preferably with dry chemical, carbon dioxide, water spray, foam.
Unsuitable Extinguishing Media	Do not use water jet.
5.2 Special hazards arising from the substance or mixture	May form explosible dust clouds in air.
5.3 Advice for firefighters	Do not use high-pressure water in order to prevent creating a dust cloud and spreading fire dust. Use appropriate respirator for carbon monoxide and carbon dioxide. Wear positive pressure self-contained breathing apparatus (SCBA) during the attack phase of firefighting operations and during cleanup in enclosed or poorly ventilated areas immediately after a fire. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source.



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### **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	Avoid generation of dust. Do not breathe dust. A suitable dust mask or dust respirator with filter type A/P may be appropriate.
6.2 Environmental precautions	Prevent substance entering sewers. Washings must be prevented from entering surface water drains.
6.3 Methods and materials for containment and cleaning up	Sweep the spilt toner or remove it with a vacuum cleaner and transfer into a sealed container carefully. Sweep slowly to minimize generation of dust during cleanup. If a vacuum cleaner is used, the motor must be rated as dust explosion proof. Potential for very fine particles to be taken into the vacuum only to be passed back into the environment due to pore size in the bag or filter.
6.4 Reference to other sections	For personal protection: See section 8. For disposal considerations: See section 13.

### **SECTION 7: Handling and storage**

7.1 Precautions for safe handling	Keep out of the reach of children. Avoid generation of dust. Avoid inhalation of high concentrations of dust. Avoid contact with eyes.
7.2 Conditions for safe storage, including any incompatibilities	Keep away from oxidizing agents.
7.3 Specific end use(s)	These products are cyan toner in a cartridge for Brother Industries, Ltd. laser printers, multifunction devices and fax receivers. This cartridge should be used as supplied by Brother and for use in the products stated.

### **SECTION 8: Exposure controls/personal protection**

### 8.1 Control Parameters

### **Occupational Exposure Limits**

Chemical Name	Paraffin wax 8002-74-2
ACGIH TLV	TWA: 2 mg/m <sup>3</sup> fume
OSHA PEL	-
European Union	-
The United Kingdom	STEL: 6 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>
France	TWA: 2 mg/m <sup>3</sup>
Spain	TWA: 2 mg/m <sup>3</sup>
Portugal	TWA: 2 mg/m <sup>3</sup>
Finland	TWA: 1 mg/m <sup>3</sup>
Denmark	TWA: 2 mg/m <sup>3</sup>
Switzerland	TWA: 2 mg/m <sup>3</sup>
Poland	TWA: 2 mg/m <sup>3</sup>
Norway	TWA: 2 mg/m <sup>3</sup> STEL: 4 mg/m <sup>3</sup>
Ireland	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>
Chemical Name	Silicon Dioxide (amorphous) 112945-52-5
ACGIH TLV	-
OSHA PEL	20mppcf 80(mg/m <sup>3</sup> )/%SiO <sub>2</sub>



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European Union	-
Austria	TWA: 4 mg/m <sup>3</sup>
Chemical Name	Silicon Dioxide (amorphous)
	844491-94-7
ACGIH TLV	-
OSHA PEL	20mppcf 80(mg/m <sup>3</sup> )/%SiO <sub>2</sub>
European Union	-
Additional information	USA OSHA PEL (TWA): 15 mg/m <sup>3</sup> (Total Dust) 5mg/m <sup>3</sup> (Respirable Fraction). ACGIH TLV (TWA): 10 mg/m <sup>3</sup> (Inhalable particles) 3 mg/m <sup>3</sup> (Respirable particles)
8.2 Exposure controls	
Appropriate engineering controls	Good general ventilation should be sufficient under normal use.
Personal protective equipment	Not normally required. For use other than in normal operating procedures (such as in the event of large spill), the following should be applied:
Eye Protection	Safety goggles.
Hand Protection	Protective gloves.
Skin and body protection	Long sleeved clothing and long pants.
, ,	
Respiratory protection	Dust mask. (Large spillages: Respirator).

Environmental Exposure Controls Avoid release to the environment.

### **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Appearance	
Physical state	Powder
Color	Cyan
Odor Odor Threshold pH Melting point/freezing point Initial boiling point and boiling range Flash Point Evaporation rate Flammability (solid, gas) Upper/lower flammability or explosive limits	Odorless No information available Not applicable 110 °C (Melting point) Not applicable Not applicable Not applicable Not applicable 95 - 100 g/m <sup>3</sup> (lower)
Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient: n-octanol/water Auto-ignition temperature Decomposition temperature Viscosity Explosive properties Oxidizing properties	Not applicable Not applicable 1.15 (H <sub>2</sub> O=1) Insoluble (water) No information available No information available No information available Not applicable Explosive limits of toner particles suspended in air approximately equal to that of coal dust. No information available

### 9.2 Other information

No information available.



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# SECTION 10: Stability and reactivity10.1 ReactivityNo information available.10.2 Chemical stabilityStable.10.3 Possibility of hazardous<br/>reactionsNo information available.10.4 Conditions to avoidKeep at a temperature not exceeding 200 °C. Avoid friction, sparks, or other means of ignition.10.5 Incompatible materialsStrong oxidizing agents.10.6 Hazardous decomposition<br/>productsContains: Carbon monoxide, Carbon dioxide and Nitrogen oxides.

### **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

### Acute toxicity

Ingestion	Acute $LD_{50} > 2000 \text{ mg/kg}$ (Method OECD#420)
Skin corrosion/irritation	Non-irritant. (Method: OECD#404)
Serious eye damage/irritation	Slight irritant to the eye (Method: OECD#405)
Respiratory or skin sensitisation	It is not a skin sensitizer. (Method: OECD#429)
Mutagenicity	Ames test: Negative. (Method: OECD#471)



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### SECTION 12: Ecological information

12.1 Toxicity	No information available.
12.2 Persistance and degradability	No information available.
12.3 Bioaccumulative potential	No information available.
12.4 Mobility in soil	No information available.
12.5 Results of PBT and vPvB assessment	This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).
12.6 Other adverse effects	No information available.

### SECTION 13: Disposal considerations

13.1 Waste treatment methods

Do not put toner or toner cartridges into a fire, this can cause fire to spread with the risk of causing burn injuries. Shred toner cartridges in a dust/explosion controlled environment. Finely dispersed particles may form explosive mixtures in the air. Dispose of in accordance with Federal, State, and local regulations.

### **SECTION 14: Transport information**

Not classified according to the United Nations "Recommendations on the Transport of Dangerous Goods"

14.1 UN Number	None
14.2 UN proper shipping name	None
14.3 Transport hazard class(es)	None
14.4 Packing Group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to	Not applicable

Annex II of Marpol 73/78 and the IBC Code

Not regulated under DOT, IMDG, ADR, RID, IATA.



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### SECTION 15: Regulatory information

an indicate substances contained in this preduct are and had been listed on the TCCA
emical substances contained in this product are and had been listed on the TSCA
ubstances Inventory, and none is subject to any of the following TSCA requirements: st rules; proposed or final section 5(a)(2) significant new use rules; section 5(e) consent tion 8(a) preliminary assessment information rules; and section 8(d) health and safety ng rules. HMIS: Not applicable. (Manufactured article)

### 15.2 Chemical Safety Assessment No.

SECTION 16: Other information		
Full text of R-phrases referred to under sections 2 and 3	None	
Full text of H-Statements referred to under sections 2 and 3	None	
Additional information	The information relates only to this product. It may not be valid, if used in combination with any other materials or in any other process, and it is based on our best knowledge as of the date of preparation (revision).	
Revision Note	SECTION 3	
References:	U.S. 29CFR Part 1910 ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices IARC Monographs on the Evaluation Carcinogenic Risks to Humans World Health Organization EU Directive 91/322/EEC and 2000/39/EC NTP 11th Report on Carcinogens	
Abbreviations:	ACGIH: American Conference of Governmental Industrial Hygienists ADR: European Agreement concerning the International carriage of Dangerous goods by Road (EU) DOT: Department Of Transportation (US) IARC: International Agency for Research on Cancer IATA: International Air Transport Association IMDG: International Maritime Dangerous Goods NOHSC: National Occupational Health and Safety Commission (Australia) NTP: National Toxicology Program (US) OSHA: Occupational Safety and Health Administration (US) PEL: Permissible Exposure Limit RID: Regulations concerning the International carriage of goods by Rail (EU) STEL: Short Term Exposure Limit TLV: Threshold Limit Value (ACGIH) TSCA: Toxic Substances Control Act (US) TWA: Time Weighted Average WHMIS: Workplace Hazardous Material Information System (Canada)	



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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	TN-310M, TN-315M, TN-318M, TN-320M, TN-325M, TN-328M, TN-340M, TN-345M, TN-348M,
	TN-370M, TN-375M, TN-378M Toner

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified Use(s)	These products are magenta toner in a cartridge for Brother Industries, Ltd. laser printers,
	multifunction devices and fax receivers. The cartridge should be used as supplied by Brother and for
	use in the products stated. Information provided on this SDS is only consistent with the use specified
	by Brother.

### 1.3 Details of the supplier of the safety data sheet

Manufacturer	Brother Industries, Ltd. 15-1 Naeshiro-cho, Mizuho-ku, Nagoya 467-8561, Japan Telephone (for information): +81-52-824-2735
Importer (USA)	Brother International Corporation 200 Crossing Boulevard, Bridgewater, NJ 08807, USA Telephone (for information): +1-877-276-8437
Importer (Canada)	Brother International Corporation (Canada) Ltd. 1 Hotel de Ville, Dollard des Ormeaux, Quebec, H9B 3H6, Canada Telephone (for information): +1-514-685-0600
Importer (Europe)	Brother International Europe Ltd. Brother House, 1 Tame Street, Guide Bridge, Audenshaw, Manchester M34 5JE, UK Telephone (for information): +44-161-330-6531
Importer (Australia)	Brother International (Aust.) Pty. Ltd. ACN 001 393 835 Level 3, Building A, 11 Talavera Road, Macquarie Park, NSW 2113, Australia Telephone (for information): +61-2-9887-4344
E-mail Address	sds.info@brother.co.jp
4 Emergency telephone number	
Emergency Telephone (24 hours)	CHEMTREC +1-703-527-3887 (International) +1-800-424-9300 (North America)

For France only: Antipoison Center telephone number: ORFILA +33-1-45-425-959

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Product name: TN-310M, TN-315M, TN-318M, TN-320M, TN-325M, TN-328M, TN-340M, TN-345M, TN-348M, TN-370M, TN-375M, TN-378M Toner

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### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Not classified as hazardous

Classification according to Directive 1999/45/EC

Not classified as hazardous

### Australia Classification

Not classified as hazardous according to the criteria of NOHSC

### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms
None

Signal Word None

Hazard Statements None

Precautionary statements None

### 2.3 Other hazards

This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).



Product name: TN-310M, TN-315M, TN-318M, TN-320M, TN-325M, TN-328M, TN-340M, TN-345M, TN-348M, TN-370M, TN-375M, TN-378M Toner

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### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

**Description of the mixture:** Styrene-acrylate Toner (Mixture).

Chemical Name	CAS-No	EC-No	w/w%	Classification (EU Reg. 1272/2008)
Styrene-acrylate copolymer	25767-47-9	-	81-85	Not classified
Paraffin wax	8002-74-2	232-315-6	3-5	Not classified
Pigment	**	**	2.5-4.5	Not classified
Pigment	**	**	1.5-2.5	Not classified
Pigment	**	**	0.1-1	Not classified
PMMA	9011-14-7	-	1.5-2.5	Not classified
Styrene-acrylate Resin	**	-	1-2	Not classified
Fatty Acid Ester	**	-	1-2	Not classified
Silicon Dioxide (amorphous)	112945-52-5	231-545-4	1-2	Not classified
Silicon Dioxide (amorphous)	844491-94-7	430-570-1	<1	Not classified

For the full text of R-phrases and H-Statements see Section 16

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### **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

General advice	If symptoms persist, obtain medical attention.
Inhalation	Obtain immediate medical attention. In case of accident by inhalation remove casualty to fresh air and keep at rest.
Skin contact	Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and water.
Eye contact	Obtain medical attention. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.
Ingestion	Obtain immediate medical attention. Wash out mouth with water and give 100-200 ml of water to drink.
4.2 Most important symptoms and effects, both acute and delayed	Inhalation (dust): For large quantities: May cause irritation to the respiratory system. Increased difficulty in breathing. Sneezing. Coughing.
	Eye contact: May cause eye irritation.
	Ingestion: May cause stomach ache. Unlikely route of exposure.
4.3 Indication of any immediate medical attention and special treatment needed	Treat symptomatically.



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### SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable Extinguishing Media	Extinguish preferably with dry chemical, carbon dioxide, water spray, foam.
Unsuitable Extinguishing Media	Do not use water jet.
5.2 Special hazards arising from the substance or mixture	May form explosible dust clouds in air.
5.3 Advice for firefighters	Do not use high-pressure water in order to prevent creating a dust cloud and spreading fire dust. Use appropriate respirator for carbon monoxide and carbon dioxide. Wear positive pressure self-contained breathing apparatus (SCBA) during the attack phase of firefighting operations and during cleanup in enclosed or poorly ventilated areas immediately after a fire. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source.

### SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	Avoid generation of dust. Do not breathe dust. A suitable dust mask or dust respirator with filter type A/P may be appropriate.
6.2 Environmental precautions	Prevent substance entering sewers. Washings must be prevented from entering surface water drains.
6.3 Methods and materials for containment and cleaning up	Sweep the spilt toner or remove it with a vacuum cleaner and transfer into a sealed container carefully. Sweep slowly to minimize generation of dust during cleanup. If a vacuum cleaner is used, the motor must be rated as dust explosion proof. Potential for very fine particles to be taken into the vacuum only to be passed back into the environment due to pore size in the bag or filter.
6.4 Reference to other sections	For personal protection: See section 8. For disposal considerations: See section 13.

### SECTION 7: Handling and storage

7.1 Precautions for safe handling	Keep out of the reach of children. Avoid generation of dust. Avoid inhalation of high concentrations of dust. Avoid contact with eyes.
7.2 Conditions for safe storage, including any incompatibilities	Keep away from oxidizing agents.
7.3 Specific end use(s)	These products are magenta toner in a cartridge for Brother Industries, Ltd. laser printers, multifunction devices and fax receivers. This cartridge should be used as supplied by Brother and for use in the products stated.

### SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters

### **Occupational Exposure Limits**

Chemical Name	Paraffin wax 8002-74-2
ACGIH TLV	TWA: 2 mg/m <sup>3</sup> fume
OSHA PEL	-



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European Union	-
The United Kingdom	STEL: 6 mg/m <sup>3</sup>
•	TWA: 2 mg/m <sup>3</sup>
France	TWA: 2 mg/m <sup>3</sup>
Spain	TWA: 2 mg/m <sup>3</sup>
Portugal	TWA: 2 mg/m <sup>3</sup>
Finland	TWA: 1 mg/m <sup>3</sup>
Denmark	TWA: 2 mg/m <sup>3</sup>
Switzerland	TWA: 2 mg/m <sup>3</sup>
Poland	TWA: 2 mg/m <sup>3</sup>
Norway	TWA: 2 mg/m <sup>3</sup>
-	STEL: 4 mg/m <sup>3</sup>
Ireland	TWA: 2 mg/m <sup>3</sup>
	STEL: 6 mg/m <sup>3</sup>
Chemical Name	Silicon Dioxide (amorphous)
	112945-52-5
ACGIH TLV	-
OSHA PEL	20mppcf 80(mg/m <sup>3</sup> )/%SiO <sub>2</sub>
European Union	-
Austria	TWA: 4 mg/m <sup>3</sup>
Chemical Name	Silicon Dioxide (amorphous)
	844491-94-7
ACGIH TLV	-
OSHA PEL	20mppcf 80(mg/m <sup>3</sup> )/%SiO <sub>2</sub>
European Union	

Additional information	USA OSHA PEL (TWA): 15 mg/m <sup>3</sup> (Total Dust) 5mg/m <sup>3</sup> (Respirable Fraction).	

ACGIH TLV (TWA): 10 mg/m<sup>3</sup> (Inhalable particles) 3 mg/m<sup>3</sup> (Respirable particles)

### 8.2 Exposure controls

Appropriate engineering controls	Good general ventilation should be sufficient under normal use.
Personal protective equipment	Not normally required. For use other than in normal operating procedures (such as in the event of large spill), the following should be applied:
Eye Protection Hand Protection Skin and body protection Respiratory protection	Safety goggles. Protective gloves. Long sleeved clothing and long pants. Dust mask. (Large spillages: Respirator).
Environmental Exposure Controls	Avoid release to the environment.



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### **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Appearance	
Physical state	Powder
Color	Magenta
Odor	Odorless
Odor Threshold	No information available
рН	Not applicable
Melting point/freezing point	110 °C (Melting point)
Initial boiling point and boiling range	Not applicable
Flash Point	Not applicable
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive	95 - 100 g/m <sup>3</sup> (lower)
limits	
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	1.15 (H <sub>2</sub> O=1)
Solubility(ies)	Insoluble (water)
Partition coefficient: n-octanol/water	No information available
Auto-ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	Not applicable
Explosive properties	Explosive limits of toner particles suspended in air approximately equal to that of coal dust.
Oxidizing properties	No information available

### 9.2 Other information

No information available.

### SECTION 10: Stability and reactivity

10.1 Reactivity	No information available.
10.2 Chemical stability	Stable.
10.3 Possibility of hazardous reactions	No information available.
10.4 Conditions to avoid	Keep at a temperature not exceeding 200 °C. Avoid friction, sparks, or other means of ignition.
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous decomposition products	Contains: Carbon monoxide, Carbon dioxide and Nitrogen oxides.



Product name: TN-310M, TN-315M, TN-318M, TN-320M, TN-325M, TN-328M, TN-340M, TN-345M, TN-348M, TN-370M, TN-375M, TN-378M Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 5 SDS No: MT403-01-EUUSOTHER

### **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

Inhalation Eye contact Skin contact Ingestion	Acute $LC_{50} > 5.26$ mg/l (Method OECD#403) No information available. No information available. Acute $LD_{50} > 2000$ mg/kg (Method OECD#420)
Skin corrosion/irritation	Non-irritant. (Method: OECD#404)
Serious eye damage/irritation	Slight irritant to the eye (Method: OECD#405)
Respiratory or skin sensitisation	It is not a skin sensitizer. (Method: OECD#429)
Mutagenicity	Ames test: Negative.
Carcinogenicity	Ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA.

### **SECTION 12: Ecological information**

12.1 Toxicity	No information available.
12.2 Persistance and degradability	No information available.
12.4 Mobility in soil	No information available.
12.5 Results of PBT and vPvB assessment	This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).
12.6 Other adverse effects	No information available.

### **SECTION 13: Disposal considerations**

13.1 Waste treatment methods	Do not put toner or toner cartridges into a fire, this can cause fire to spread with the risk of causing
	burn injuries. Shred toner cartridges in a dust/explosion controlled environment. Finely dispersed
	particles may form explosive mixtures in the air. Dispose of in accordance with Federal, State, and
	local regulations.



Product name: TN-310M, TN-315M, TN-318M, TN-320M, TN-325M, TN-328M, TN-340M, TN-345M, TN-348M, TN-370M, TN-375M, TN-378M Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 5 SDS No: MT403-01-EUUSOTHER

### **SECTION 14: Transport information**

Not classified according to the United Nations "Recommendations on the Transport of Dangerous Goods"

14.1 UN Number	None
14.2 UN proper shipping name	None
14.3 Transport hazard class(es)	None
14.4 Packing Group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code	Not applicable

Not regulated under DOT, IMDG, ADR, RID, IATA.

### **SECTION 15: Regulatory information**

 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 EU:Not classified as dangerous for supply/use. (1999/45/EC)

 USA: All chemical substances contained in this product are and had been listed on the TSCA Chemical Substances Inventory, and none is subject to any of the following TSCA requirements: section 4 test rules; proposed or final section 5(a)(2) significant new use rules; section 5(e) consent orders; section 8(a) preliminary assessment information rules; and section 8(d) health and safety data reporting rules.

 Canada: WHMIS: Not applicable. (Manufactured article)

15.2 Chemical Safety Assessment No.



Product name: TN-310M, TN-315M, TN-318M, TN-320M, TN-325M, TN-328M, TN-340M, TN-345M, TN-348M, TN-370M, TN-375M, TN-378M Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 5 SDS No: MT403-01-EUUSOTHER

SECTION 16: Other information		
Full text of R-phrases referred to under sections 2 and 3	None	
Full text of H-Statements referred to under sections 2 and 3	None	
Additional information	The information relates only to this product. It may not be valid, if used in combination with any other materials or in any other process, and it is based on our best knowledge as of the date of preparation (revision).	
Revision Note	SECTION 3	
References:	U.S. 29CFR Part 1910 ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices IARC Monographs on the Evaluation Carcinogenic Risks to Humans World Health Organization EU Directive 91/322/EEC and 2000/39/EC NTP 11th Report on Carcinogens	
Abbreviations:	ACGIH: American Conference of Governmental Industrial Hygienists ADR: European Agreement concerning the International carriage of Dangerous goods by Road (EU) DOT: Department Of Transportation (US) IARC: International Agency for Research on Cancer IATA: International Air Transport Association IMDG: International Maritime Dangerous Goods NOHSC: National Occupational Health and Safety Commission (Australia) NTP: National Toxicology Program (US) OSHA: Occupational Safety and Health Administration (US) PEL: Permissible Exposure Limit RID: Regulations concerning the International carriage of goods by Rail (EU) STEL: Short Term Exposure Limit TLV: Threshold Limit Value (ACGIH) TSCA: Toxic Substances Control Act (US) TWA: Time Weighted Average WHMIS: Workplace Hazardous Material Information System (Canada)	



Product name: TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y, TN-370Y, TN-375Y, TN-378Y Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: YT403-01-EUUSOTHER

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1	Product	identifier
	1 I Ouuci	Include

Product name	TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y,
	TN-370Y, TN-375Y, TN-378Y Toner

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified Use(s)	These products are yellow toner in a cartridge for Brother Industries, Ltd. laser printers, multifunction
	devices and fax receivers. The cartridge should be used as supplied by Brother and for use in the
	products stated. Information provided on this SDS is only consistent with the use specified by
	Brother.

### 1.3 Details of the supplier of the safety data sheet

Manufacturer	Brother Industries, Ltd. 15-1 Naeshiro-cho, Mizuho-ku, Nagoya 467-8561, Japan Telephone (for information): +81-52-824-2735
Importer (USA)	Brother International Corporation 200 Crossing Boulevard, Bridgewater, NJ 08807, USA Telephone (for information): +1-877-276-8437
Importer (Canada)	Brother International Corporation (Canada) Ltd. 1 Hotel de Ville, Dollard des Ormeaux, Quebec, H9B 3H6, Canada Telephone (for information): +1-514-685-0600
Importer (Europe)	Brother International Europe Ltd. Brother House, 1 Tame Street, Guide Bridge, Audenshaw, Manchester M34 5JE, UK Telephone (for information): +44-161-330-6531
Importer (Australia)	Brother International (Aust.) Pty. Ltd. ACN 001 393 835 Level 3, Building A, 11 Talavera Road, Macquarie Park, NSW 2113, Australia Telephone (for information): +61-2-9887-4344
E-mail Address	sds.info@brother.co.jp
4 Emergency telephone number	
Emergency Telephone (24 hours)	CHEMTREC +1-703-527-3887 (International) +1-800-424-9300 (North America)

For France only: Antipoison Center telephone number: ORFILA +33-1-45-425-959

1.4



Product name: TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y, TN-370Y, TN-375Y, TN-378Y Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: YT403-01-EUUSOTHER

### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Not classified as hazardous

Classification according to Directive 1999/45/EC

Not classified as hazardous

### Australia Classification

Not classified as hazardous according to the criteria of NOHSC

### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms
None

Signal Word None

Hazard Statements None

Precautionary statements None

### 2.3 Other hazards

This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

Description of the mixture: Styrene-acrylate Toner (Mixture).

Chemical Name	CAS-No	EC-No	w/w%	Classification (EU Reg. 1272/2008)
Styrene-acrylate copolymer	25767-47-9	-	82-85	Not classified
Pigment	**	**	6-7	Not classified
Paraffin wax	8002-74-2	232-315-6	2-3	Not classified
Fatty Acid Ester	**	-	2-3	Not classified
PMMA	9011-14-7	-	1.5-2.5	Not classified
Silicon Dioxide (amorphous)	112945-52-5	231-545-4	1-2	Not classified
Silicon Dioxide (amorphous)	844491-94-7	430-570-1	0.5-1.5	Not classified
Styrene-acrylate Resin	**	-	0.1-1	Not classified

For the full text of R-phrases and H-Statements see Section 16

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Product name: TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y, TN-370Y, TN-375Y, TN-378Y Toner

### SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice	If symptoms persist, obtain medical attention.
Inhalation	Obtain immediate medical attention. In case of accident by inhalation remove casualty to fresh air and keep at rest.
Skin contact	Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and water.
Eye contact	Obtain medical attention. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.
Ingestion	Obtain immediate medical attention. Wash out mouth with water and give 100-200 ml of water to drink.
4.2 Most important symptoms and effects, both acute and delayed	Inhalation (dust): For large quantities: May cause irritation to the respiratory system. Increased difficulty in breathing. Sneezing. Coughing.
	Eye contact: May cause eye irritation.
	Ingestion: May cause stomach ache. Unlikely route of exposure.
4.3 Indication of any immediate medical attention and special treatment needed	Treat symptomatically.

### SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable Extinguishing Media	Extinguish preferably with dry chemical, carbon dioxide, water spray, foam.
Unsuitable Extinguishing Media	Do not use water jet.
5.2 Special hazards arising from the substance or mixture	May form explosible dust clouds in air.
5.3 Advice for firefighters	Do not use high-pressure water in order to prevent creating a dust cloud and spreading fire dust. Use appropriate respirator for carbon monoxide and carbon dioxide. Wear positive pressure self-contained breathing apparatus (SCBA) during the attack phase of firefighting operations and during cleanup in enclosed or poorly ventilated areas immediately after a fire. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source.



Product name: TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y, TN-370Y, TN-375Y, TN-378Y Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: YT403-01-EUUSOTHER

### **SECTION 6: Accidental release measures**

6.1 Personal precautions, protective equipment and emergency procedures	Avoid generation of dust. Do not breathe dust. A suitable dust mask or dust respirator with filter type A/P may be appropriate.
6.2 Environmental precautions	Prevent substance entering sewers. Washings must be prevented from entering surface water drains.
6.3 Methods and materials for containment and cleaning up	Sweep the spilt toner or remove it with a vacuum cleaner and transfer into a sealed container carefully. Sweep slowly to minimize generation of dust during cleanup. If a vacuum cleaner is used, the motor must be rated as dust explosion proof. Potential for very fine particles to be taken into the vacuum only to be passed back into the environment due to pore size in the bag or filter.
6.4 Reference to other sections	For personal protection: See section 8. For disposal considerations: See section 13.

### SECTION 7: Handling and storage

7.1 Precautions for safe handling	Keep out of the reach of children. Avoid generation of dust. Avoid inhalation of high concentrations of dust. Avoid contact with eyes.
7.2 Conditions for safe storage, including any incompatibilities	Keep away from oxidizing agents.
7.3 Specific end use(s)	These products are yellow toner in a cartridge for Brother Industries, Ltd. laser printers, multifunction devices and fax receivers. This cartridge should be used as supplied by Brother and for use in the products stated.

### **SECTION 8: Exposure controls/personal protection**

### 8.1 Control Parameters

### **Occupational Exposure Limits**

Chemical Name	Paraffin wax 8002-74-2
ACGIH TLV	TWA: 2 mg/m <sup>3</sup> fume
OSHA PEL	-
European Union	-
The United Kingdom	STEL: 6 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>
France	TWA: 2 mg/m <sup>3</sup>
Spain	TWA: 2 mg/m <sup>3</sup>
Portugal	TWA: 2 mg/m <sup>3</sup>
Finland	TWA: 1 mg/m <sup>3</sup>
Denmark	TWA: 2 mg/m <sup>3</sup>
Switzerland	TWA: 2 mg/m <sup>3</sup>
Poland	TWA: 2 mg/m <sup>3</sup>
Norway	TWA: 2 mg/m <sup>3</sup> STEL: 4 mg/m <sup>3</sup>
Ireland	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>
Chemical Name	Silicon Dioxide (amorphous) 112945-52-5
ACGIH TLV	-
OSHA PEL	20mppcf 80(mg/m <sup>3</sup> )/%SiO <sub>2</sub>



Product name: TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y, TN-370Y, TN-375Y, TN-378Y Toner

European Union	· ·	
Austria	TWA: 4 mg/m <sup>3</sup>	
Chemical Name	Silicon Dioxide (amorphous)	
	844491-94-7	
ACGIH TLV	-	
OSHA PEL	20mppcf 80(mg/m <sup>3</sup> )/%SiO <sub>2</sub>	
European Union	-	
Additional information	USA OSHA PEL (TWA): 15 mg/m <sup>3</sup> (Total Dust) 5mg/m <sup>3</sup> (Respirable Fraction). ACGIH TLV (TWA): 10 mg/m <sup>3</sup> (Inhalable particles) 3 mg/m <sup>3</sup> (Respirable particles)	
8.2 Exposure controls		
Appropriate engineering controls	Good general ventilation should be sufficient under normal use.	
Personal protective equipment	Not normally required. For use other than in normal operating procedures (such as in the event of large spill), the following should be applied:	
Eye Protection	Safety goggles.	
Hand Protection	Protective gloves.	
Skin and body protection	Long sleeved clothing and long pants.	
Respiratory protection	Dust mask. (Large spillages: Respirator).	
· · · · · · · · · · · · · · · · · · ·		

Environmental Exposure Controls Avoid release to the environment.

### **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Appearance	
Physical state	Powder
Color	Yellow
Odor Odor Threshold pH Melting point/freezing point Initial boiling point and boiling range Flash Point Evaporation rate Flammability (solid, gas) Upper/lower flammability or explosive limits	Odorless No information available Not applicable 110 °C (Melting point) Not applicable Not applicable Not applicable Not applicable 95 - 100 g/m <sup>3</sup> (lower)
Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient: n-octanol/water Auto-ignition temperature Decomposition temperature Viscosity Explosive properties Oxidizing properties	Not applicable Not applicable 1.15 (H <sub>2</sub> O=1) Insoluble (water) No information available No information available No information available Not applicable Explosive limits of toner particles suspended in air approximately equal to that of coal dust. No information available

### 9.2 Other information

No information available.



Product name: TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y, TN-370Y, TN-375Y, TN-378Y Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: YT403-01-EUUSOTHER

SECTION 10: Stability and reactivity		
10.1 Reactivity	No information available.	
10.2 Chemical stability	Stable.	
10.3 Possibility of hazardous reactions	No information available.	
10.4 Conditions to avoid	Keep at a temperature not exceeding 200 °C. Avoid friction, sparks, or other means of ignition.	
10.5 Incompatible materials	Strong oxidizing agents.	
10.6 Hazardous decomposition products	Contains: Carbon monoxide, Carbon dioxide and Nitrogen oxides.	

### **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects

### Acute toxicity

Inhalation Eye contact Skin contact Ingestion	Acute LC <sub>50</sub> > 5.22 mg/l (Method OECD#403) No information available. No information available. Acute LD <sub>50</sub> > 2000 mg/kg (Method OECD#420)
Skin corrosion/irritation	Non-irritant. (Method: OECD#404)
Serious eye damage/irritation	Slight irritant to the eye (Method: OECD#405)
Respiratory or skin sensitisation	It is not a skin sensitizer. (Method: OECD#429)
Mutagenicity	Ames test: Negative. (Method: OECD#471)
Carcinogenicity	Ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA.



Product name: TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y, TN-370Y, TN-375Y, TN-378Y Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: YT403-01-EUUSOTHER

### SECTION 12: Ecological information 12.1 Toxicity No information available. 12.2 Persistance and degradability No information available. No information available. 12.3 Bioaccumulative potential 12.4 Mobility in soil No information available. 12.5 Results of PBT and vPvB This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). assessment This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB). 12.6 Other adverse effects No information available.

### SECTION 13: Disposal considerations

13.1 Waste treatment methods

Do not put toner or toner cartridges into a fire, this can cause fire to spread with the risk of causing burn injuries. Shred toner cartridges in a dust/explosion controlled environment. Finely dispersed particles may form explosive mixtures in the air. Dispose of in accordance with Federal, State, and local regulations.

### **SECTION 14: Transport information**

Not classified according to the United Nations "Recommendations on the Transport of Dangerous Goods"

14.1 UN Number	None
14.2 UN proper shipping name	None
14.3 Transport hazard class(es)	None
14.4 Packing Group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to	Not applicable

Annex II of Marpol 73/78 and the IBC Code

Not regulated under DOT, IMDG, ADR, RID, IATA.



Product name: TN-310Y, TN-315Y, TN-318Y, TN-320Y, TN-325Y, TN-328Y, TN-340Y, TN-345Y, TN-348Y, TN-370Y, TN-375Y, TN-378Y Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: YT403-01-EUUSOTHER

### SECTION 15: Regulatory information

<b>2</b> ·	EU:Not classified as dangerous for supply/use. (1999/45/EC)
0 0	<b>USA:</b> All chemical substances contained in this product are and had been listed on the TSCA
substance or mixture	Chemical Substances Inventory, and none is subject to any of the following TSCA requirements: section 4 test rules; proposed or final section 5(a)(2) significant new use rules; section 5(e) consent orders; section 8(a) preliminary assessment information rules; and section 8(d) health and safety data reporting rules. <b>Canada:</b> WHMIS: Not applicable. (Manufactured article)

15.2 Chemical Safety Assessment No.

SECTION 16: Other information		
Full text of R-phrases referred to under sections 2 and 3	None	
Full text of H-Statements referred to under sections 2 and 3	None	
Additional information	The information relates only to this product. It may not be valid, if used in combination with any other materials or in any other process, and it is based on our best knowledge as of the date of preparation (revision).	
Revision Note	SECTION 3	
References:	U.S. 29CFR Part 1910 ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices IARC Monographs on the Evaluation Carcinogenic Risks to Humans World Health Organization EU Directive 91/322/EEC and 2000/39/EC NTP 11th Report on Carcinogens	
Abbreviations:	ACGIH: American Conference of Governmental Industrial Hygienists ADR: European Agreement concerning the International carriage of Dangerous goods by Road (EU) DOT: Department Of Transportation (US) IARC: International Agency for Research on Cancer IATA: International Air Transport Association IMDG: International Maritime Dangerous Goods NOHSC: National Occupational Health and Safety Commission (Australia) NTP: National Toxicology Program (US) OSHA: Occupational Safety and Health Administration (US) PEL: Permissible Exposure Limit RID: Regulations concerning the International carriage of goods by Rail (EU) STEL: Short Term Exposure Limit TLV: Threshold Limit Value (ACGIH) TSCA: Toxic Substances Control Act (US) TWA: Time Weighted Average WHMIS: Workplace Hazardous Material Information System (Canada)	



Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: PT493-01-EUUSOTHER

Product name: TN-310BK, TN-315BK, TN-320BK, TN-325BK, TN-328BK, TN-340BK, TN-348BK, TN-370BK, TN-378BK Toner

### **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

1.1 Product identifier	
Product name	TN-310BK, TN-315BK, TN-320BK, TN-325BK, TN-328BK, TN-340BK, TN-348BK, TN-370BK, TN-378BK Toner
1.2 Relevant identified uses of the sub-	stance or mixture and uses advised against
Relevant Identified Use(s)	These products are black toner in a cartridge for Brother Industries, Ltd. laser printers, multifunction devices and fax receivers. The cartridge should be used as supplied by Brother and for use in the products stated. Information provided on this SDS is only consistent with the use specified by Brother.
1.3 Details of the supplier of the safety	data sheet
Manufacturer	Brother Industries, Ltd. 15-1 Naeshiro-cho, Mizuho-ku, Nagoya 467-8561, Japan Telephone (for information): +81-52-824-2735
Importer (USA)	Brother International Corporation 200 Crossing Boulevard, Bridgewater, NJ 08807, USA Telephone (for information): +1-877-276-8437
Importer (Canada)	Brother International Corporation (Canada) Ltd. 1 Hotel de Ville, Dollard des Ormeaux, Quebec, H9B 3H6, Canada Telephone (for information): +1-514-685-0600
Importer (Europe)	Brother International Europe Ltd. Brother House, 1 Tame Street, Guide Bridge, Audenshaw, Manchester M34 5JE, UK Telephone (for information): +44-161-330-6531
Importer (Australia)	Brother International (Aust.) Pty. Ltd. ACN 001 393 835 Level 3, Building A, 11 Talavera Road, Macquarie Park, NSW 2113, Australia Telephone (for information): +61-2-9887-4344
E-mail Address	sds.info@brother.co.jp
1.4 Emergency telephone number	
Emergency Telephone (24 hours)	CHEMTREC +1-703-527-3887 (International) +1-800-424-9300 (North America)

For France only: Antipoison Center telephone number: ORFILA +33-1-45-425-959



Product name: TN-310BK, TN-315BK, TN-320BK, TN-325BK, TN-328BK, TN-340BK, TN-348BK, TN-370BK, TN-378BK Toner

Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: PT493-01-EUUSOTHER

### **SECTION 2: Hazards identification**

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Not classified as hazardous

Classification according to Directive 1999/45/EC

Not classified as hazardous

### Australia Classification

Not classified as hazardous according to the criteria of NOHSC

### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008

Hazard pictograms None

Signal Word None

Hazard Statements None

Precautionary statements None

### 2.3 Other hazards

This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

### **SECTION 3: Composition/information on ingredients**

### 3.2 Mixtures

**Description of the mixture:** Styrene-acrylate Toner (Mixture).

Chemical Name	CAS-No	EC-No	w/w%	Classification
				(EU Reg. 1272/2008)
Styrene-acrylate copolymer	25767-47-9	-	83-85	Not classified
Carbon Black (bound)	1333-86-4	215-609-9	5.5-6.5	Not classified
Paraffin wax	8002-74-2	232-315-6	3-4	Not classified
PMMA	9011-14-7	-	2-3	Not classified
Fatty Acid Ester	**	-	1-2	Not classified
Silicon Dioxide (amorphous)	112945-52-5	231-545-4	0.5-1.5	Not classified
Silicon Dioxide (amorphous)	844491-94-7	430-570-1	0.5-1.5	Not classified
Styrene-acrylate Resin	**	-	0.1-1	Not classified

For the full text of R-phrases and H-Statements see Section 16

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Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: PT493-01-EUUSOTHER

Product name: TN-310BK, TN-315BK, TN-320BK, TN-325BK, TN-328BK, TN-340BK, TN-348BK, TN-370BK, TN-378BK Toner

# SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice	If symptoms persist, obtain medical attention.
Inhalation	Obtain immediate medical attention. In case of accident by inhalation remove casualty to fresh air and keep at rest.
Skin contact	Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and water.
Eye contact	Obtain medical attention. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.
Ingestion	Obtain immediate medical attention. Wash out mouth with water and give 100-200 ml of water to drink.
4.2 Most important symptoms and effects, both acute and delayed	Inhalation (dust): For large quantities: May cause irritation to the respiratory system. Increased difficulty in breathing. Sneezing. Coughing.
	Eye contact: May cause eye irritation.
	Ingestion: May cause stomach ache. Unlikely route of exposure.
4.3 Indication of any immediate medical attention and special treatment needed	Treat symptomatically.

### SECTION 5: Firefighting measures

5.1 Extinguishing media Suitable Extinguishing Media	Extinguish preferably with dry chemical, carbon dioxide, water spray, foam.
Unsuitable Extinguishing Media	Do not use water jet.
5.2 Special hazards arising from the substance or mixture	May form explosible dust clouds in air.
5.3 Advice for firefighters	Do not use high-pressure water in order to prevent creating a dust cloud and spreading fire dust. Use appropriate respirator for carbon monoxide and carbon dioxide. Wear positive pressure self-contained breathing apparatus (SCBA) during the attack phase of firefighting operations and during cleanup in enclosed or poorly ventilated areas immediately after a fire. Personnel not having suitable respiratory protection must leave the area to prevent significant exposure to toxic combustion gases from any source.



Issuing Date: 18-May-2010 Revision Date: 01-November-2015 Version: 4 SDS No: PT493-01-EUUSOTHER

Product name: TN-310BK, TN-315BK, TN-320BK, TN-325BK, TN-328BK, TN-340BK, TN-348BK, TN-370BK, TN-378BK Toner

### SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures	Avoid generation of dust. Do not breathe dust. A suitable dust mask or dust respirator with filter type A/P may be appropriate.
6.2 Environmental precautions	Prevent substance entering sewers. Washings must be prevented from entering surface water drains.
6.3 Methods and materials for containment and cleaning up	Sweep the spilt toner or remove it with a vacuum cleaner and transfer into a sealed container carefully. Sweep slowly to minimize generation of dust during cleanup. If a vacuum cleaner is used, the motor must be rated as dust explosion proof. Potential for very fine particles to be taken into the vacuum only to be passed back into the environment due to pore size in the bag or filter.
6.4 Reference to other sections	For personal protection: See section 8. For disposal considerations: See section 13.

### SECTION 7: Handling and storage

7.1 Precautions for safe handling	Keep out of the reach of children. Avoid generation of dust. Avoid inhalation of high concentrations of dust. Avoid contact with eyes.
7.2 Conditions for safe storage, including any incompatibilities	Keep away from oxidizing agents.
7.3 Specific end use(s)	These products are black toner in a cartridge for Brother Industries, Ltd. laser printers, multifunction devices and fax receivers. This cartridge should be used as supplied by Brother and for use in the products stated.

### **SECTION 8: Exposure controls/personal protection**

### 8.1 Control Parameters

### **Occupational Exposure Limits**

Chemical Name	Carbon Black (bound)
	1333-86-4
ACGIH TLV	TWA: 3 mg/m <sup>3</sup> inhalable fraction
OSHA PEL	TWA: 3.5 mg/m <sup>3</sup>
European Union	-
The United Kingdom	STEL: 7 mg/m <sup>3</sup>
	TWA: 3.5 mg/m <sup>3</sup>
France	TWA: 3.5 mg/m <sup>3</sup>
Spain	TWA: 3.5 mg/m <sup>3</sup>
Germany	Carc
Portugal	TWA: 3.5 mg/m <sup>3</sup>
Finland	TWA: 3.5 mg/m <sup>3</sup>
	STEL: 7 mg/m <sup>3</sup>
Denmark	TWA: 3.5 mg/m <sup>3</sup>
Poland	TWA: 4.0 mg/m <sup>3</sup>
Norway	TWA: 3.5 mg/m <sup>3</sup>
	STEL: 7 mg/m <sup>3</sup>
Ireland	TWA: 3.5 mg/m <sup>3</sup>
	STEL: 7 mg/m <sup>3</sup>
Chemical Name	Paraffin wax
	8002-74-2
ACGIH TLV	TWA: 2 mg/m <sup>3</sup> fume
OSHA PEL	



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European Union	-	
The United Kingdom	STEL: 6 mg/m <sup>3</sup>	
-	TWA: 2 mg/m <sup>3</sup>	
France	TWA: 2 mg/m <sup>3</sup>	
Spain	TWA: 2 mg/m <sup>3</sup>	
Portugal	TWA: 2 mg/m <sup>3</sup>	
Finland	TWA: 1 mg/m <sup>3</sup>	
Denmark	TWA: 2 mg/m <sup>3</sup>	
Switzerland	TWA: 2 mg/m <sup>3</sup>	
Poland	TWA: 2 mg/m <sup>3</sup>	
Norway	TWA: 2 mg/m <sup>3</sup>	
	STEL: 4 mg/m <sup>3</sup>	
Ireland	TWA: 2 mg/m <sup>3</sup>	
	STEL: 6 mg/m <sup>3</sup>	
Chemical Name	Silicon Dioxide (amorphous)	
	112945-52-5	
ACGIH TLV	-	
OSHA PEL	20mppcf 80(mg/m <sup>3</sup> )/%SiO <sub>2</sub>	
European Union	-	
Austria	TWA: 4 mg/m <sup>3</sup>	
Chemical Name	Silicon Dioxide (amorphous)	
	844491-94-7	
ACGIH TLV	-	
OSHA PEL	20mppcf 80(mg/m <sup>3</sup> )/%SiO <sub>2</sub>	
European Union	-	

8.2 Exposure controls

Additional information

USA OSHA PEL (TWA): 15 mg/m<sup>3</sup> (Total Dust) 5mg/m<sup>3</sup> (Respirable Fraction). ACGIH TLV (TWA): 10 mg/m<sup>3</sup> (Inhalable particles) 3 mg/m<sup>3</sup> (Respirable particles)

# Appropriate engineering controlsGood general ventilation should be sufficient under normal use.Personal protective equipmentNot normally required. For use other than in normal operating procedures (such as in the event of<br/>large spill), the following should be applied:Eye ProtectionSafety goggles.Hand ProtectionProtective gloves.Skin and body protectionLong sleeved clothing and long pants.<br/>Dust mask. (Large spillages: Respirator).

Environmental Exposure Controls Avoid release to the environment.



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# **SECTION 9: Physical and chemical properties**

### 9.1 Information on basic physical and chemical properties

Appearance Physical state	Powder
Color	Black
Odor Odor Threshold pH Melting point/freezing point Initial boiling point and boiling range Flash Point Evaporation rate Flammability (solid, gas) Upper/lower flammability or explosive	Odorless No information available Not applicable 110 °C (Melting point) Not applicable Not applicable Not applicable Not applicable 95 - 100 g/m <sup>3</sup> (lower)
limits Vapor pressure Vapor density Relative density Solubility(ies) Partition coefficient: n-octanol/water Auto-ignition temperature Decomposition temperature Viscosity Explosive properties Oxidizing properties	Not applicable Not applicable 1.15 (H <sub>2</sub> O) Negligible (water) No information available No information available No information available Not applicable Explosive limits of toner particles suspended in air approximately equal to that of coal dust. No information available

### 9.2 Other information

No information available.

### **SECTION 10: Stability and reactivity**

10.1 Reactivity	No information available.
10.2 Chemical stability	Stable.
10.3 Possibility of hazardous reactions	No information available.
10.4 Conditions to avoid	Keep at a temperature not exceeding 200 °C. Avoid friction, sparks, or other means of ignition.
10.5 Incompatible materials	Strong oxidizing agents.
10.6 Hazardous decomposition products	Contains: Carbon monoxide, Carbon dioxide and Nitrogen oxides.



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### SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity

Inhalation Eye contact Skin contact Ingestion	Acute $LC_{50} > 5.19 \text{ mg/l}$ (Method OECD#403) No information available. No information available. Acute $LD_{50} > 2000 \text{ mg/kg}$ (Method OECD#420)
Skin corrosion/irritation	Non-irritant. (Method: OECD#404)
Serious eye damage/irritation	Slight irritant to the eye (Method: OECD#405)
Respiratory or skin sensitisation	It is not a skin sensitizer. (Method: OECD#429)
Mutagenicity	Ames test: Negative. (Method: OECD#471)
Carcinogenicity	Carbon Black: In 1996, the IARC re-evaluated carbon black as a Group 2B carcinogen (possible human carcinogen). This classification is given to chemicals, for which there is inadequate human evidence, but sufficient animal evidence on which to base an opinion of carcinogenicity. The classification 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 did not show any 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. Other ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA.

### **SECTION 12: Ecological information**

### 12.1 Toxicity

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Carbon Black (bound) 1333-86-4			EC <sub>50</sub> : >5600 mg/L 24 h (Daphnia magna)
12.2 Persistance and degradability	No information available.		
12.3 Bioaccumulative potential	No information available.		
12.4 Mobility in soil	No information available.		
12.5 Results of PBT and vPvB assessment	This product contains no substance considered to be persistent, bioaccumulating nor toxic (PBT). This product contains no substance considered to be very persistent nor very bioaccumulating (vPvB).		
12.6 Other adverse effects	No information available.		



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### SECTION 13: Disposal considerations

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13.1 Waste treatment methods
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Do not put toner or toner cartridges into a fire, this can cause fire to spread with the risk of causing burn injuries. Shred toner cartridges in a dust/explosion controlled environment. Finely dispersed particles may form explosive mixtures in the air. Dispose of in accordance with Federal, State, and local regulations.

### **SECTION 14: Transport information**

Not classified according to the United Nations "Recommendations on the Transport of Dangerous Goods"

14.1 UN Number	None
14.2 UN proper shipping name	None
14.3 Transport hazard class(es)	None
14.4 Packing Group	None
14.5 Environmental hazards	None
14.6 Special precautions for user	None
14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC Code	Not applicable

Not regulated under DOT, IMDG, ADR, RID, IATA.

### SECTION 15: Regulatory information

No.

 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
 EU:Not classified as dangerous for supply/use. (1999/45/EC)

 USA: All chemical substances contained in this product are and had been listed on the TSCA Chemical Substances Inventory, and none is subject to any of the following TSCA requirements: section 4 test rules; proposed or final section 5(a)(2) significant new use rules; section 5(e) consent orders; section 8(a) preliminary assessment information rules; and section 8(d) health and safety data reporting rules.

 Canada: WHMIS: Not applicable. (Manufactured article)

15.2 Chemical Safety Assessment



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SECTION 16: Other information		
Full text of R-phrases referred to under sections 2 and 3	None	
Full text of H-Statements referred to under sections 2 and 3	None	
Additional information	The information relates only to this product. It may not be valid, if used in combination with any other materials or in any other process, and it is based on our best knowledge as of the date of preparation (revision).	
Revision Note	SECTION 3	
References:	U.S. 29CFR Part 1910 ACGIH Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices IARC Monographs on the Evaluation Carcinogenic Risks to Humans World Health Organization EU Directive 91/322/EEC and 2000/39/EC NTP 11th Report on Carcinogens	
Abbreviations:	ACGIH: American Conference of Governmental Industrial Hygienists ADR: European Agreement concerning the International carriage of Dangerous goods by Road (EU) DOT: Department Of Transportation (US) IARC: International Agency for Research on Cancer IATA: International Air Transport Association IMDG: International Maritime Dangerous Goods NOHSC: National Occupational Health and Safety Commission (Australia) NTP: National Toxicology Program (US) OSHA: Occupational Safety and Health Administration (US) PEL: Permissible Exposure Limit RID: Regulations concerning the International carriage of goods by Rail (EU) STEL: Short Term Exposure Limit TLV: Threshold Limit Value (ACGIH) TSCA: Toxic Substances Control Act (US) TWA: Time Weighted Average WHMIS: Workplace Hazardous Material Information System (Canada)	