

Product name: TN-210M, TN-230M, TN-240M, TN-270M Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 6 SDS No: MT402-01-EUUSOTHER

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

1.1 Product identifier

Product name TN-210M, TN-230M, TN-240M, TN-270M 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, Québec, 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

ΕN

Emergency Telephone CHEMTREC

(24 hours) +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	-	82-86	Not classified
Fatty Acid Ester	**	-	3-7	Not classified
Pigment	**	**	2-5	Not classified
Pigment	**	**	1-3	Not classified
Pigment	**	**	<1	Not classified
PMMA	9011-14-7	-	1-3	Not classified
Silicon Dioxide (amorphous)	112945-52-5	231-545-4	<3	Not classified
Styrene-acrylate Resin	**	-	<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.

## 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 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	Silicon Dioxide (amorphous)	
	112945-52-5	
ACGIH TLV	-	
OSHA PEL	20mppcf 80(mg/m³)/%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/m³)/%SiO <sub>2</sub>	
European Union	-	

Additional information

USA OSHA PEL (TWA): 15 mg/m³ (Total Dust) 5mg/m³ (Respirable Fraction).

ACGIH TLV (TWA): 10 mg/m³ (Inhalable particles) 3 mg/m³ (Respirable particles)



8.2 Exposure controls

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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.

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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 Magenta
Odor Odorless

Odor Threshold No information available

pH Not applicable

Melting point/freezing point 110 °C (Melting point)

Initial boiling point and boiling range
Flash Point
Evaporation rate
Flammability (solid, gas)
Not applicable
Not applicable
Not applicable

Upper/lower flammability or explosive 95 – 100 g/m<sup>3</sup> (lower)

limits

ΕN

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.



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## 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

ΕN

Contains: Carbon monoxide, Carbon dioxide and Nitrogen oxides.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### **Acute toxicity**

InhalationNo information available.Eye contactNo information available.Skin contactNo information available.IngestionNo information available.

**Skin corrosion/irritation**No information available.

Serious eye damage/irritation No information available.

Respiratory or skin sensitisation No information available.

**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.

<sup>&</sup>lt;sup>†</sup> This assessment is based on information available on similar products.



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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 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)

Canada: William Not applicable. (Walland and Canada

15.2 Chemical Safety Assessment No.



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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)



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

1.1 Product identifier

Product name TN-210Y, TN-230Y, TN-240Y, TN-270Y 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, Québec, 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

EN



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SDS No: YT402-01-EUUSOTHER

Product name: TN-210Y, TN-230Y, TN-240Y, TN-270Y Toner

## **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	-	83-87	Not classified
Pigment	**	**	4-6	Not classified
Fatty Acid Ester	**	-	4-6	Not classified
PMMA	9011-14-7	=	1-3	Not classified
Silicon Dioxide (amorphous)	112945-52-5	231-545-4	1-3	Not classified
Styrene-acrylate Resin	**	=	0.1-2	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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Product name: TN-210Y, TN-230Y, TN-240Y, TN-270Y Toner

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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.

Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and Skin contact

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

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 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	Silicon Dioxide (amorphous)
	112945-52-5
ACGIH TLV	-
OSHA PEL	20mppcf 80(mg/m³)/%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/m³)/%SiO <sub>2</sub>
European Union	-

Additional information USA OSHA PEL (TWA): 15 mg/m³ (Total Dust) 5mg/m³ (Respirable Fraction).

ACGIH TLV (TWA): 10 mg/m³ (Inhalable particles) 3 mg/m³ (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:



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Eye Protection Safety goggles. Hand Protection Protective gloves.

Product name: TN-210Y, TN-230Y, TN-240Y, TN-270Y Toner

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 Odorless

Odor Threshold No information available

pН

Not applicable 110 °C (Melting point) Melting point/freezing 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 65 - 70 g/m<sup>3</sup> (lower)

limits

Vapor pressure Not applicable Vapor density Not applicable 1.15 (H<sub>2</sub>O=1) Relative density Insoluble (water) Solubility(ies) No information available Partition coefficient: n-octanol/water Auto-ignition temperature No information available Decomposition temperature No information available Not applicable Viscosity

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.

Strong oxidizing agents. 10.5 Incompatible materials

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 Acute  $LC_{50} > 5.15 \text{ mg/l}$  (Method OECD#403)

Eye contact No information available. Skin contact No information available.

Ingestion 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. (Method: OECD#471)

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.

**12.3 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.



Product name: TN-210Y, TN-230Y, TN-240Y, TN-270Y Toner

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## **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.



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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).

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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-210BK, TN-230BK, TN-240BK, TN-270BK Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 5

SDS No: PT492-01-EUUSOTHER

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

1.1 Product identifier

Product name TN-210BK, TN-230BK, TN-240BK, TN-270BK Toner

1.2 Relevant identified uses of the substance 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, Québec, 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)

ΕN

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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Issuing Date: 9-January-2009 Revision Date: 01-November-2015 270BK Toner Version: 5

SDS No: PT492-01-EUUSOTHER

 $\label{eq:product_name:} \textbf{TN-210BK, TN-230BK, TN-240BK, TN-270BK Toner}$ 

## **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
Carbon Black (bound)	1333-86-4	215-609-9	5-7	Not classified
Fatty Acid Ester	**	-	5-7	Not classified
Silicon Dioxide (amorphous)	112945-52-5	231-545-4	1-3	Not classified
PMMA	9011-14-7	-	1-3	Not classified
Styrene-acrylate Resin	**	-	0.1-2	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

<sup>\*\*</sup> CONFIDENTIAL



Product name: TN-210BK, TN-230BK, TN-240BK, TN-270BK Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 5

SDS No: PT492-01-EUUSOTHER

### 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

ΕN

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: 9-January-2009 Revision Date: 01-November-2015 Version: 5

SDS No: PT492-01-EUUSOTHER

Product name: TN-210BK, TN-230BK, TN-240BK, TN-270BK 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

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/m³	
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	Silicon Dioxide (amorphous)	
	112945-52-5	
ACGIH TLV	-	
OSHA PEL	20mppcf 80(mg/m³)/%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>

USA OSHA PEL (TWA): 15 mg/m³ (Total Dust) 5mg/m³ (Respirable Fraction). Additional information

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.

Product name: TN-210BK, TN-230BK, TN-240BK, TN-270BK Toner

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 Black Odorless Odor

Odor Threshold No information available

Not applicable

110 °C (Melting point) Not applicable Melting point/freezing point

Initial boiling point and boiling range Flash Point Not applicable Evaporation rate Not applicable Flammability (solid, gas) Not applicable 50 - 60 g/m<sup>3</sup> (lower) Upper/lower flammability or explosive

limits

Vapor pressure Not applicable Not applicable 1.15 (H<sub>2</sub>O) Vapor density Relative density 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.



Product name: TN-210BK, TN-230BK, TN-240BK, TN-270BK Toner

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SDS No: PT492-01-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 Acute  $LC_{50} > 5.18 \text{ mg/l}$  (Method OECD#403)

Eye contact No information available. Skin contact No information available.

Ingestion 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. (Method: OECD#471)

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.



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Product name: TN-210BK, TN-230BK, TN-240BK, TN-270BK Toner

## **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)			EC <sub>50</sub> : >5600 mg/L 24 h
1333-86-4			(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.

### 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 Annex II of Marpol 73/78 and the IBC Code

Not applicable

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



Product name: TN-210BK, TN-230BK, TN-240BK, TN-270BK Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 5

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### 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

### **SECTION 16: Other information**

Full text of R-phrases referred to

under sections 2 and 3

None

No.

Full text of H-Statements referred to

under sections 2 and 3

None

Additional information The info

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-210C, TN-230C, TN-240C, TN-270C Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 5 SDS No: CT402-01-EUUSOTHER

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

1.1 Product identifier

Product name TN-210C, TN-230C, TN-240C, TN-270C 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 CHEMTREC

(24 hours) +1-703-52

+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-210C, TN-230C, TN-240C, TN-270C Toner

## 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	-	86-88	Not classified
Pigment	**	**	4-6	Not classified
Fatty Acid Ester	**	-	4-6	Not classified
Silicon Dioxide (amorphous)	112945-52-5	231-545-4	1-3	Not classified
Silicon Dioxide (amorphous)	844491-94-7	430-570-1	0.5-2	Not classified
PMMA	9011-14-7	-	0.1-2	Not classified
Styrene-acrylate Resin	**	-	0.1-2	Not classified

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

<sup>\*\*</sup> CONFIDENTIAL



Product name: TN-210C, TN-230C, TN-240C, TN-270C Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 5

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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

ΕN

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.



Revision Date: 01-November-2015 Product name: TN-210C, TN-230C, TN-240C, TN-270C Toner Version: 5

SDS No: CT402-01-EUUSOTHER

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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

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	Silicon Dioxide (amorphous)
	112945-52-5
ACGIH TLV	-
OSHA PEL	20mppcf 80(mg/m³)/%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/m³)/%SiO <sub>2</sub>
European Union	-

USA OSHA PEL (TWA): 15 mg/m3 (Total Dust) 5mg/m3 (Respirable Fraction). Additional information

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

8.2 Exposure controls

ΕN

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:



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Eye Protection Safety goggles. Hand Protection Protective gloves.

Product name: TN-210C, TN-230C, TN-240C, TN-270C Toner

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

Powder Physical state Color Cyan Odor Odorless

Odor Threshold No information available

pН

Not applicable 110 °C (Melting point) Melting point/freezing 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 60 - 65 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) Insoluble (water) Solubility(ies) No information available Partition coefficient: n-octanol/water Auto-ignition temperature No information available Decomposition temperature No information available Not applicable Viscosity

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.

Strong oxidizing agents. 10.5 Incompatible materials

10.6 Hazardous decomposition

products

Contains: Carbon monoxide, Carbon dioxide and Nitrogen oxides.



Product name: TN-210C, TN-230C, TN-240C, TN-270C Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 5

SDS No: CT402-01-EUUSOTHER

## **SECTION 11: Toxicological information**

#### 11.1 Information on toxicological effects

### **Acute toxicity**

Inhalation Acute  $LC_{50} > 5.13 \text{ mg/l}$  (Method OECD#403)

Eye contact No information available. Skin contact No information available.

Ingestion 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. (Method: OECD#471)

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.

**12.3 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.



Product name: TN-210C, TN-230C, TN-240C, TN-270C Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 5

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## **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-210C, TN-230C, TN-240C, TN-270C Toner

Issuing Date: 9-January-2009 Revision Date: 01-November-2015 Version: 5 SDS No: CT402-01-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)