

Product Name: TN-13, TN-14, TN-730, TN-760, TN-770, TN-2405, TN-2410, TN-2411, TN-2412, TN-2415, TN-2420, TN-2421, TN-2424, TN-2425, TN-2426, TN-2430, TN-2435, TN-2440, TN-2445, TN-2448, TN-2449, TN-2450, TN-2454, TN-2455, TN-2456, TN-2458, TN-2459, TN-2460, TN-2465, TN-2469, TN-2470, TN-2474, TN-2475, TN-2480, TN-2481, TN-2484, TN-2485, TN-2489, TN-B020, TN-B021, TN-B022, TN-B023 toner; DR-B020, DR-B021, DR-B022, DR-B023 Drum unit toner

Safety data sheet number: BES-01

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

### **1.1. Product identifier**

**Product Name** TN-13, TN-14, TN-730, TN-760, TN-770, TN-2405, TN-2410, TN-2411, TN-2412, TN-2415, TN-2420, TN-2421, TN-2424, TN-2425, TN-2426, TN-2430, TN-2435, TN-2440, TN-2445, TN-2448, TN-2449, TN-2450, TN-2454, TN-2455, TN-2456, TN-2458, TN-2459, TN-2460, TN-2465, TN-2469, TN-2470, TN-2474, TN-2475, TN-2480, TN-2481, TN-2484, TN-2485, TN-2489, TN-B020, TN-B021, TN-B022, TN-B023 toner; DR-B020, DR-B021, DR-B022, DR-B023 Drum unit toner

**Product Form** Mixture

**Safety data sheet number** BES-01

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

**Relevant identified uses** 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. Information provided on this SDS is only consistent with the use specified by Brother.

**Uses advised against** No information available

### **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** (Europe)  
Brother International Europe Ltd.  
1 Tame Street, Audenshaw, Manchester M34 5JE, UK  
Brother International (Nederland) B.V.  
Zanderij 25, 1185 ZM Amstelveen, The Netherlands  
Telephone (for information): +44-161-330-6531

### **For further information, please contact**

**E-mail address** sds.info@brother.co.jp

### **1.4. Emergency telephone number**

**Emergency Telephone** CHEMTREC +1-703-527-3887 (International)

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

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## Section 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

### 2.2. Label elements

#### Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

### 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

### 3.1 Substances

Not applicable

### 3.2 Mixtures

Chemical name	CAS No	EC No	EC Index No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Polyester resin	**	-	-	75-90	Not classified	Not available
Carbon Black (bound)	1333-86-4	-	-	3-10	Not classified	01-2119384822-32-XXXX
Other Components	-	-	-	**	Not classified	No data available

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Full text of H- and EUH-phrases: see section 16

## Section 4: First aid measures

### 4.1. Description of first aid measures

#### General advice

If symptoms persist, call a physician.

#### Inhalation

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.

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<b>Eye contact</b>	In case of eye contact, immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical advice/attention.
<b>Skin contact:</b>	Take off contaminated clothing. Wash off immediately with soap and plenty of water.
<b>Ingestion</b>	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**

<b>Symptoms</b>	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
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#### **4.3. Indication of any immediate medical attention and special treatment needed**

<b>Note to physicians</b>	Treat symptomatically.
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### **Section 5: Firefighting measures**

#### **5.1. Extinguishing media**

<b>Suitable Extinguishing Media</b>	Dry chemical, CO <sub>2</sub> , water spray or regular foam
<b>Unsuitable extinguishing media</b>	Do not use water jet

#### **5.2. Special hazards arising from the substance or mixture**

<b>Specific hazards arising from the chemical</b>	May form explosive dust clouds in air
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#### **5.3. Advice for firefighters**

<b>Special protective equipment for fire-fighters</b>	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**

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**For non-emergency personnel** Avoid generation of dust. Do not breathe dust. A suitable dust mask or dust respirator with filter type A/P may be appropriate.

**For emergency responders** Use personal protection recommended in Section 8.

### **6.2. Environmental precautions**

**Environmental precautions** Prevent entry into waterways, sewers, basements or confined areas.

### **6.3. Methods and material for containment and cleaning up**

**Methods for containment** 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.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

### **6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## **Section 7: Handling and storage**

### **7.1. Precautions for safe handling**

**Advice on safe handling** Keep out of the reach of children. Avoid generation of dust. Avoid inhalation of high concentrations of dust. Avoid contact with eyes.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

### **7.2. Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

### **7.3. Specific end use(s)**

**Specific 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.

Product Name: TN-13, TN-14, TN-730, TN-760, TN-770, TN-2405, TN-2410, TN-2411, TN-2412, TN-2415, TN-2420, TN-2421, TN-2424, TN-2425, TN-2426, TN-2430, TN-2435, TN-2440, TN-2445, TN-2448, TN-2449, TN-2450, TN-2454, TN-2455, TN-2456, TN-2458, TN-2459, TN-2460, TN-2465, TN-2469, TN-2470, TN-2474, TN-2475, TN-2480, TN-2481, TN-2484, TN-2485, TN-2489, TN-B020, TN-B021, TN-B022, TN-B023 toner; DR-B020, DR-B021, DR-B022, DR-B023 Drum unit toner

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**Section 8: Exposure controls and personal protection**

**8.1. Control parameters**

**Exposure Limits**

Chemical name	European Union	United Kingdom	France	Spain	Germany
Carbon Black (bound) 1333-86-4	-	TWA: 3.5 mg/m <sup>3</sup> STEL: 7 mg/m <sup>3</sup>	TWA: 3.5 mg/m <sup>3</sup>	TWA: 3.5 mg/m <sup>3</sup>	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Carbon Black (bound) 1333-86-4	-	TWA: 3.5 mg/m <sup>3</sup>	-	TWA: 3.5 mg/m <sup>3</sup> STEL: 7 mg/m <sup>3</sup>	TWA: 3.5 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Carbon Black (bound) 1333-86-4	-	-	TWA: 4.0 mg/m <sup>3</sup>	TWA: 3.5 mg/m <sup>3</sup> STEL: 7 mg/m <sup>3</sup>	TWA: 3 mg/m <sup>3</sup> STEL: 15 mg/m <sup>3</sup>

**Derived No Effect Level (DNEL)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**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/face protection** Safety goggles.

**Hand protection** Protective gloves.

**Skin and body protection** Long sleeved clothing and long pants.

**Respiratory protection** Face Mask. In case of large spillages: Wear suitable respiratory protective equipment.

**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

**Odor**

Odorless

Product Name: TN-13, TN-14, TN-730, TN-760, TN-770, TN-2405, TN-2410, TN-2411, TN-2412, TN-2415, TN-2420, TN-2421, TN-2424, TN-2425, TN-2426, TN-2430, TN-2435, TN-2440, TN-2445, TN-2448, TN-2449, TN-2450, TN-2454, TN-2455, TN-2456, TN-2458, TN-2459, TN-2460, TN-2465, TN-2469, TN-2470, TN-2474, TN-2475, TN-2480, TN-2481, TN-2484, TN-2485, TN-2489, TN-B020, TN-B021, TN-B022, TN-B023 toner; DR-B020, DR-B021, DR-B022, DR-B023 Drum unit toner

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<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Odor threshold	No information available	
pH	No data available	Not applicable
Melting point / freezing point	No information available	None known
Boiling point / boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No information available	None known
Flammability (solid, gas)	No information available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No information available	None known
Vapor density	No information available	None known
Relative density	1.2	(H <sub>2</sub> O=1)
Water solubility	insoluble	
Solubility(ies)	partially soluble ( Toluene , Chloroform and tetrahydrofuran )	
Partition coefficient	No information available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No information available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available	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 under normal conditions.

**10.3. Possibility of hazardous reactions**

No information available.

**10.4. Conditions to avoid**

Keep away from heat. Avoid friction, sparks, or other means of ignition.

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### **10.5. Incompatible materials**

Strong oxidizing agents

### **10.6. Hazardous decomposition products**

Carbon oxides, Nitrogen oxides (NOx)

## **Section 11: Toxicological information**

### **11.1. Information on toxicological effects**

#### **Product Information**

<b>Inhalation</b>	Acute LC <sub>50</sub> (4-hr) > 5.66 mg/l (OECD 436 method)
<b>Eye contact</b>	No information available
<b>Skin contact:</b>	No information available
<b>Ingestion</b>	Acute LD <sub>50</sub> > 5000 mg/kg (OECD 423 method)
<b>Skin corrosion/irritation</b>	Non-irritant (OECD 404 method)
<b>Serious eye damage/eye irritation</b>	Non-irritant (OECD 437 method)
<b>Respiratory or skin sensitization</b>	It is not a skin sensitizer (OECD 429 method)
<b>Germ cell mutagenicity</b>	AMES test : Negative (OECD 471 method)
<b>Carcinogenicity</b>	<p>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.</p> <p>Other ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA</p>

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## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity

Contains 0 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Carbon Black (bound)	-	-	-	5600: 24 h Daphnia magna mg/L EC50

### 12.2. Persistence 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.



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## Section 14: Transport information

### IMDG

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special Provisions	None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

### RID

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

### ADR

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

### IATA

14.1 UN/ID no	Not regulated
14.2 Proper shipping name	Not regulated
14.3 Hazard Class	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU-Regulations

\* Contains no substances listed in REACH Regulation (EC) No.1907/2006 ANNEX XVII.

\* Contains no substance listed in REACH Regulation (EC) No.1907/2006 Candidate List for Authorization.

\* Contains no substances listed in REACH Regulation (EC) No.1907/2006 ANNEX XIV.

**Revision Date:** 30-Sep-2020

**Issuing Date:** 26-Oct-2016

Revision Number: 4

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**National Regulations**

No information available

**15.2. Chemical safety assessment**

No chemical safety assessment has been carried out.

**Section 16: Other information**

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Legend**

SVHC: Substances of Very High Concern for Authorization:

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	**	Trade secret

**Key literature references and sources for data**

No information available

**Revision Date** 30-Sep-2020

**Issuing Date** 26-Oct-2016

**Revision Note**

Importer information has been changed.

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

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).