SAFETY DATA SHEET

Revision Date: 02-Jun-2021
Issuing Date: 18-Jan-2010
Revision Number: 5

Product Name: TN-200, DR-200, TN-200HL, TN-250, DR-250, TN-300, DR-300, TN-5000PF, TN-8000, DR-8000, TN-8050, DR-8050 TONER

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

1.1. Product identifier

Product Name TN-200, DR-200, TN-200HL, TN-250, DR-250, TN-300, DR-300, TN-5000PF, TN-8000, DR-8000, TN-8050, DR-8050 TONER

Product Form Mixture

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

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]

EUH208 - Contains Rosin, fumarated May produce an allergic reaction.

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-%	Specific concentration limit (SCL)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH Registration Number
Polyester resin	**	-	-	**	-	Not classified	Not applicable
N,N-diethyl-N-methyl-2-(2-methyl-1-oxo-2-propenyl)oxyethanaminium salt with 4-methylbenzenesulfonic acid (1:1) polymer with butyl 2-propenoate and ethenylbenzene	133350-42-2	-	-	5-10	-	Eye Irrit. 2 (H319)	Not applicable
Carbon Black (bound)	1333-86-4	215-609-9	-	1-5	-	Not classified	01-2119384822-32-XXXX
Rosin, fumarated	65997-04-8	266-040-8	-	1-2.5	-	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Skin Sens. 1 (H317)	Not applicable

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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 — Remove to fresh air. Get immediate medical advice/attention.

Eye contact — Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact: — Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

Ingestion — Rinse mouth thoroughly with water. Drink 1 or 2 glasses of water. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms — 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

Note to physicians — Treat symptomatically.

Section 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media — Dry chemical, CO_2, water spray or regular foam

Unsuitable extinguishing media — Do not use water jet

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical — May form explosive dust clouds in air

5.3. Advice for firefighters

Special protective equipment for fire-fighters 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

For non-emergency personnel Ensure adequate ventilation Avoid contact with skin and eyes 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 Do not flush into surface water or sanitary sewer system.

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 away from oxidizing agents.

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.

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^3 STEL: 7 mg/m^3	TWA: 3.5 mg/m^3	TWA: 3.5 mg/m^3	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Carbon Black (bound) 1333-86-4	-	TWA: 3 mg/m^3	-	TWA: 3.5 mg/m^3 STEL: 7 mg/m^3	TWA: 3.5 mg/m^3
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Carbon Black (bound) 1333-86-4	-	-	TWA: 4 mg/m^3	TWA: 3.5 mg/m^3 STEL: 7 mg/m^3	TWA: 3 mg/m^3 STEL: 15 mg/m^3

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 Use appropriate respiratory protection. 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
Odor threshold	No information available

Property	**Values**	**Remarks • Method**
pH	Not applicable	
pH (as aqueous solution)	Not applicable	
Melting point / freezing point	131 - 137 °C	
Boiling point / boiling range	Not Applicable	
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No data available	
Vapor density	No data available	
Relative density	1.2	(H_2O=1)
Water solubility	Insoluble in water	
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	Not applicable	
Dynamic viscosity	Not Applicable	
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

9.2.1. Information with regard to physical hazard classes
No information available

9.2.2. Other safety characteristics
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

10.5. Incompatible materials

Strong oxidizing agents

10.6. Hazardous decomposition products

Carbon monoxide, Carbon dioxide (CO_2), Nitrogen oxides (NOx)

Section 11: Toxicological information

11.1. Information on toxicological effects

Product Information

Inhalation	Acute LC_{50} (4-hr) > 2.2 mg/l (The highest technically achievable concentration) (OECD 403 method) Acute LC_{50} (1 hour) > 8.8 mg/l (This figure is calculated according to the United Nations Recommendations on the Transport of Dangerous Goods 2.6.2.2.4.2 and IATA DGR 3.6.1.5.3.1)
Eye contact	No information available
Skin contact:	No information available
Ingestion	Acute LD_{50} > 2000 mg/kg (OECD 423 method)

Skin corrosion/irritation	Non-irritant (OECD 404 method)
Serious eye damage/eye irritation	Slight irritant to the eye (OECD 405 method)
Respiratory or skin sensitization	It is not a skin sensitizer (OECD 406 method)
Germ cell mutagenicity	AMES test : Negative (OECD 471 method)
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**
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available
Aspiration hazard	No information available.
Potential health effects	Eye : May cause slight irritation Skin : Prolonged exposure may cause skin irritation Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea Inhalation : Not an expected route of exposure Over exposure may cause respiratory irritation.

11.2. Information on other hazards

No information available

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity The environmental impact of this product has not been fully investigated
Contains 0 % of components with unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Rosin, fumarated	-	LC50: =3.2mg/L (96h, Brachydanio rerio)	-	-

12.2. Persistence and degradability
No information available.

12.3. Bioaccumulative potential
There is no data for this product.

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. Endocrine disrupting properties
No information available.

12.7. 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

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.

National Regulations

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

Full text of H-Statements referred to under section 3
EUH018 - In use may form flammable/explosive vapor-air mixture
EUH031 - Contact with acids liberates toxic gas
H250 - Catches fire spontaneously if exposed to air
H319 - Causes serious eye irritation

Legend
SVHC: Substances of Very High Concern for Authorization:

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
**	Trade secret		

Key literature references and sources for data
No information available

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Revision Note
SDS sections updated : 1

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).