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

1.1. Product identifier

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

1.2.1. Relevant identified uses
Use of the substance/mixture: 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

1.2.2. Uses advised against
No additional 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 (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 number: 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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No. 1272/2008 [CLP]
Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]
Not classified

Australia Classification
Not classified as hazardous according to the criteria of NOHSC

2.2. Label elements
Labeling according to Regulation (EC) No. 1272/2008 [CLP]
EUH phrases: EUH208 - Contains Rosin, fumarated(65997-04-8). May produce an allergic reaction
2.3. Other hazards
This substance/mixture does not meet the PBT criteria of REACH, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII

SECTION 3: Composition/information on ingredients

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Directive 67/548/EEC</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>(CAS No) 133350-42-2 (EC no) -</td>
<td>5 - 10</td>
<td>Xi; R36</td>
<td>Eye Irrit. 2, H319</td>
</tr>
<tr>
<td>Carbon Black (bound)</td>
<td>(CAS No) 1333-86-4 (EC no) 215-609-9</td>
<td>1 - 5</td>
<td>Not classified</td>
<td>Not classified</td>
</tr>
<tr>
<td>Rosin, fumarated</td>
<td>(CAS No) 65997-04-8 (EC no) 266-040-8</td>
<td>1 - 2.5</td>
<td>Xi; R22, R43</td>
<td>Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317</td>
</tr>
<tr>
<td>Polyester resin</td>
<td>(CAS No) ** (EC no) -</td>
<td>**</td>
<td>Not classified</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

** CONFIDENTIAL
Full text of R- and H- phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general: If symptoms persist, obtain medical attention.
First-aid measures after inhalation: Obtain medical attention. In case of accident by inhalation: remove casualty to fresh air and keep at rest.
First-aid measures after skin contact: Remove contaminated clothing immediately and wash affected skin with plenty of water or soap and water.
First-aid measures after eye contact: Obtain medical attention. If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes.
First-aid measures after 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

Symptoms/injuries after inhalation: For large quantities: May cause irritation to the respiratory system. Increased difficulty in breathing. Sneezing. Coughing.
Symptoms/injuries after eye contact: May cause eye irritation.
Symptoms/injuries after 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, Water spray.
Unsuitable extinguishing media: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Explosion hazard: May form explosible dust clouds in air.

5.3. Advice for firefighters

Firefighting instructions: 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

6.1.1. For non-emergency personnel
No additional information available

6.1.2. For emergency responders
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 material for containment and cleaning up
Methods for cleaning up: Sweep the spilled 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
SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
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
Storage conditions: 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

<table>
<thead>
<tr>
<th>Country</th>
<th>Local name</th>
<th>Limit (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>Local name</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>Denmark</td>
<td>Local name</td>
<td>Carbon black</td>
</tr>
<tr>
<td>Denmark</td>
<td>Limit (long-term) (mg/m³)</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>Ireland</td>
<td>Anmaerkninger (DK)</td>
<td>K</td>
</tr>
<tr>
<td>Finland</td>
<td>Local name</td>
<td>Nokimusta</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (8h) (mg/m³)</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>Finland</td>
<td>HTP-arvo (15 min)</td>
<td>7 mg/m³</td>
</tr>
<tr>
<td>France</td>
<td>Local name</td>
<td>Noir de carbone</td>
</tr>
<tr>
<td>France</td>
<td>VME (mg/m³)</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>Ireland</td>
<td>Local name</td>
<td>Carbon black</td>
</tr>
<tr>
<td>Ireland</td>
<td>OEL (8 hours ref) (mg/m³)</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>Ireland</td>
<td>OEL (15 min ref) (mg/m³)</td>
<td>7 mg/m³</td>
</tr>
<tr>
<td>Portugal</td>
<td>Local name</td>
<td>Carbono, preto (Negro de fumo)</td>
</tr>
<tr>
<td>Portugal</td>
<td>OEL TWA (mg/m³)</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>Spain</td>
<td>Local name</td>
<td>Negro de humo</td>
</tr>
<tr>
<td>Spain</td>
<td>VLA-ED (mg/m³)</td>
<td>3.5 mg/m³</td>
</tr>
<tr>
<td>Spain</td>
<td>Notes</td>
<td>véase Apartado 9</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Local name</td>
<td>Carbon black</td>
</tr>
</tbody>
</table>

Notes: véase Apartado 9
Safety Data Sheet


Date of issue: 19 November 2013
Revision date: 04 November 2014
Version: 5.0
SDS No:BPL-01-EUUSOTHER

<table>
<thead>
<tr>
<th>Carbon Black (bound) (1333-86-4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
</tr>
<tr>
<td>United Kingdom</td>
</tr>
<tr>
<td>Norway</td>
</tr>
<tr>
<td>Norway</td>
</tr>
<tr>
<td>USA - ACGIH</td>
</tr>
<tr>
<td>USA - ACGIH</td>
</tr>
<tr>
<td>USA - ACGIH</td>
</tr>
<tr>
<td>USA - OSHA</td>
</tr>
<tr>
<td>USA - OSHA</td>
</tr>
</tbody>
</table>

Additional information:

- USA OSHA PEL (TWA): 15 mg/m³ (Total dust) 5 mg/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:
  - Hand protection: protective gloves.
  - Eye protection: Safety goggles.
  - 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Powder</td>
</tr>
<tr>
<td>Color</td>
<td>Black</td>
</tr>
<tr>
<td>Odor</td>
<td>odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (ether=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point</td>
<td>No information available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.2 (H₂O=1)</td>
</tr>
<tr>
<td>Solubility</td>
<td>Partially soluble (toluene, chloroform and tetrahydrofuran). Insoluble in water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No information available</td>
</tr>
<tr>
<td>Log Kow</td>
<td>No information available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Explosive limits of toner particles suspended in air approximately equal to that of coal dust</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No information available</td>
</tr>
</tbody>
</table>
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 away from heat. Avoid friction, sparks, or other means of ignition.

10.5. Incompatible materials
Strong oxidizing agents.

10.6. Hazardous decomposition products

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

LD_{50} oral rat  > 5000 mg/kg (OECD 423 method)
LC_{50} inhalation rat (mg/l)  > 5.24 mg/l/4h (OECD 436 method)

Skin corrosion/irritation : Non-irritant. (OECD 404 method)
pH: Not applicable

Serious eye damage/irritation : Minimal irritant to the eye. (OECD 405 method)
pH: Not applicable

Respiratory or skin sensitization : It is not a skin sensitizer. (OECD 429 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 : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Carbon Black (bound) (1333-86-4)
EC_{50} Daphnia  > 5600 mg/l 24 h (Daphnia magna)

Rosin, fumarated (65997-04-8)
LC_{50} fish  3.2 mg/l 96 h static (Brachydanio rerio)
12.2. Persistence and degradability
Persistence and degradability
No information available.

12.3. Bioaccumulative potential
Log Pow
No information available
Log Kow
No information available

12.4. Mobility in soil
Ecology - soil
No information available.

12.5. Results of PBT and vPvB assessment
This substance/mixture does not meet the PBT criteria of REACH, annex XIII
This substance/mixture does not meet the vPvB criteria of REACH, annex XIII
Results of PBT assessment
Not available

12.6. Other adverse effects
Other adverse effects
No information available.

SECTION 13: Disposal considerations
13.1. Waste treatment methods
Waste disposal recommendations
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 in accordance with federal, state and local regulations.

SECTION 14: Transport information
In accordance with ADR / IMDG / IATA / DOT / UN
14.1. UN number
Not regulated for transport

14.2. UN proper shipping name
Proper Shipping Name (ADR/RID) : None
Proper Shipping Name (IATA) : None
Proper Shipping Name (IMDG) : None

14.3. Transport hazard class(es)
Not applicable

14.5. Environmental hazards
Other information : None

14.6. Special precautions for user
Special transport precautions : None

14.6.1. Overland transport
No additional information available

14.6.2. Transport by sea
No additional information available

14.6.3. Air transport
No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
IBC code : Not applicable
SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions
Contains no REACH candidate substance

15.1.2. National regulations

Regional legislation : 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 chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
Newly issued.

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
NTP 11th Report on Carcinogens.

Abbreviations and acronyms : IARC (International Agency for Research on Cancer)
IATA (International Air Transport Association)
IMDG (International Maritime Dangerous Goods Code)
IOELV (Indicative Occupational Exposure Limit)
REACH (Registration, Evaluation and Authorisation of Chemicals)
WHMIS (Workplace Hazardous Material Information System (Canada))
ACGIH (American Conference of Government Industrial Hygienists)
DOT (Department Of Transportation (US))
ICAO (International Civil Aviation Organization)
NOHSC (National Occupational Health and Safety Commission (Australia))
NTP (National Toxicology Program) (US)
OSHA (Occupational Safety and Health Administration) (US)
PEL (Permissible Exposure Limit)
STEL (Short Term Exposure Limit)
TLV (Threshold Limit Value) (ACGIH)
TSCA (Toxic Substances Control Act) (US)
TWA (Time Weighted Average).

Other information : The information only relates to this specific 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).

Full text of R-, H- and EUH-phrases:

<table>
<thead>
<tr>
<th>Acute Tox. 4 (Oral)</th>
<th>Acute toxicity (oral) Category 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Dam. 1</td>
<td>Serious eye damage/eye irritation Category 1</td>
</tr>
<tr>
<td>Eye Irrit. 2</td>
<td>Serious eye damage/eye irritation Category 2</td>
</tr>
<tr>
<td>Skin Sens. 1</td>
<td>Skin sensitization Category 1</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>R22</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>R36</td>
<td>Irritating to eyes</td>
</tr>
<tr>
<td>R41</td>
<td>Risk of serious damage to eyes</td>
</tr>
<tr>
<td>R43</td>
<td>May cause sensitization by skin contact</td>
</tr>
<tr>
<td>Xi</td>
<td>Irritant</td>
</tr>
<tr>
<td>Xn</td>
<td>Harmful</td>
</tr>
</tbody>
</table>