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

1.1 Product identifier

Product name
PC201, PC202RF, PC204RF, PC300RF, PC301, PC302RF, PC304RF Ink film

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

Relevant Identified Use(s)
These products are thermal ink films for Brother Industries, Ltd. facsimile receivers. These products 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): +1-514-885-0600

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
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: Ink on substrate film (Mixture).

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No</th>
<th>EC-No</th>
<th>w/w%</th>
<th>Classification (EU Reg. 1272/2008)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene terephthalate</td>
<td>25038-59-9</td>
<td>-</td>
<td>48-54</td>
<td>Not classified</td>
</tr>
<tr>
<td>Paraffin wax</td>
<td>8002-74-2</td>
<td>232-315-6</td>
<td>23-28</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td>215-609-9</td>
<td>6-9</td>
<td>Not classified</td>
</tr>
<tr>
<td>Resin</td>
<td>**</td>
<td>**</td>
<td>5-7</td>
<td>Not classified</td>
</tr>
<tr>
<td>Carnauba wax</td>
<td>8015-86-9</td>
<td>232-399-4</td>
<td>4-6</td>
<td>Not classified</td>
</tr>
<tr>
<td>Ethylene-vinyl acetate copolymer</td>
<td>24937-78-8</td>
<td>-</td>
<td>4-5</td>
<td>Not classified</td>
</tr>
<tr>
<td>Pigment</td>
<td>**</td>
<td>**</td>
<td>0.5-1</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

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

** CONFIDENTIAL
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice  If symptoms persist, obtain medical attention.

Inhalation  Unlikely route of exposure. If symptoms develop obtain medical attention.

Skin contact  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  No specific effects and/or symptoms have been reported or known.

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, foam.

Unsuitable Extinguishing Media  None.

5.2 Special hazards arising from the substance or mixture  Thermal decomposition can lead to release of irritating and toxic gases and vapors: Carbon oxides.

5.3 Advice for firefighters  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  Not normally required.

6.2 Environmental precautions  Not normally required.

6.3 Methods and materials for containment and cleaning up  Not applicable.

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.

7.2 Conditions for safe storage, including any incompatibilities
Keep out of the reach of children. Keep away from oxidizing agents.

7.3 Specific end use(s)
These products are thermal ink films for Brother Industries, Ltd. facsimile receivers. These products 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.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Paraffin wax 8002-74-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH TLV</td>
<td>TWA: 2 mg/m³ fume</td>
</tr>
<tr>
<td>OSHA PEL</td>
<td>-</td>
</tr>
<tr>
<td>European Union</td>
<td>-</td>
</tr>
<tr>
<td>The United Kingdom</td>
<td>STEL: 6 mg/m³</td>
</tr>
<tr>
<td>France</td>
<td>TWA: 2 mg/m³</td>
</tr>
<tr>
<td>Spain</td>
<td>TWA: 2 mg/m³</td>
</tr>
<tr>
<td>Portugal</td>
<td>TWA: 2 mg/m³</td>
</tr>
<tr>
<td>Finland</td>
<td>TWA: 1 mg/m³</td>
</tr>
<tr>
<td>Denmark</td>
<td>TWA: 2 mg/m³</td>
</tr>
<tr>
<td>Switzerland</td>
<td>TWA: 2 mg/m³</td>
</tr>
<tr>
<td>Poland</td>
<td>TWA: 2 mg/m³</td>
</tr>
<tr>
<td>Norway</td>
<td>TWA: 2 mg/m³ STEL: 4 mg/m³</td>
</tr>
<tr>
<td>Ireland</td>
<td>TWA: 2 mg/m³ STEL: 6 mg/m³</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Carbon Black 1333-86-4</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH TLV</td>
<td>TWA: 3 mg/m³ inhalable fraction</td>
</tr>
<tr>
<td>OSHA PEL</td>
<td>TWA: 3.5 mg/m³</td>
</tr>
<tr>
<td>European Union</td>
<td>-</td>
</tr>
<tr>
<td>The United Kingdom</td>
<td>STEL: 7 mg/m³</td>
</tr>
<tr>
<td>France</td>
<td>TWA: 3.5 mg/m³</td>
</tr>
<tr>
<td>Spain</td>
<td>TWA: 3.5 mg/m³</td>
</tr>
<tr>
<td>Germany</td>
<td>Carc</td>
</tr>
<tr>
<td>Portugal</td>
<td>TWA: 3.5 mg/m³</td>
</tr>
<tr>
<td>Finland</td>
<td>TWA: 3.5 mg/m³ STEL: 7 mg/m³</td>
</tr>
<tr>
<td>Denmark</td>
<td>TWA: 3.5 mg/m³</td>
</tr>
<tr>
<td>Poland</td>
<td>TWA: 4.0 mg/m³</td>
</tr>
<tr>
<td>Norway</td>
<td>TWA: 3.5 mg/m³ STEL: 7 mg/m³</td>
</tr>
<tr>
<td>Ireland</td>
<td>TWA: 3.5 mg/m³ STEL: 7 mg/m³</td>
</tr>
</tbody>
</table>

8.2 Exposure controls
Appropriate engineering controls
Good general ventilation should be sufficient under normal use.
Personal protective equipment

- **Eye Protection**: None under normal use.
- **Hand Protection**: None under normal use. In case of prolonged contact wear protective gloves.
- **Skin and body protection**: None under normal use.
- **Respiratory protection**: None under normal use.

**Environmental Exposure Controls**

Not normally required.

### SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

**Appearance**
- **Physical state**: Film
- **Color**: Black

**Odor**
- Odor: Odorless
- Odor Threshold: No information available

**pH**: Not applicable

**Melting point/freezing point**: > 250 °C Film

**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 limits: No information available

**Vapor pressure**: Not applicable

**Vapor density**: Not applicable

**Relative density**: 1.4 (H₂O=1) Film

**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**: Not explosive

**Oxidizing properties**: No information available

**9.2 Other information**

No information available.

### SECTION 10: Stability and reactivity

**10.1 Reactivity**

No information available.

**10.2 Chemical stability**

Stable.

**10.3 Possibility of hazardous reactions**

No information available.

**10.4 Conditions to avoid**

Keep at a temperature not exceeding 200 °C. Avoid friction, sparks, or other means of ignition.

**10.5 Incompatible materials**

Strong oxidizing agents.

**10.6 Hazardous decomposition products**

Contains: Carbon monoxide (CO). Carbon dioxide (CO₂).
SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Exposure</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No information available.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No information available.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>No information available.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: No information available.

Serious eye damage/irritation: No information available.

Respiratory or skin sensitisation: No information available.

Mutagenicity: No information available.

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.

Other ingredients of this product have not been classified as carcinogens according to IARC monographs, NTP and OSHA.

SECTION 12: Ecological information

12.1 Toxicity

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
<td></td>
<td>EC50: &gt;5600 mg/L 24 h (Daphnia magna)</td>
</tr>
</tbody>
</table>

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 or very bioaccumulating (vPvB).

12.6 Other adverse effects: No information available.
SECTION 13: Disposal considerations

13.1 Waste treatment methods
Dispose of in accordance with Federal, State, and local regulations.

SECTION 14: Transport information

Not classified as hazardous for transport

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.
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
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)