



# Requirements and Standards for Suppliers for Environmental Label Compliance

Version 1

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**BROTHER INDUSTRIES, LTD.**

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## 1. Introduction

The Brother Group is actively working to acquire environmental labels across the world. The requirements for each environmental label include matters that we must ask suppliers to take action on.

These Requirements and Standards have been created for the purpose of appropriate communication with our suppliers. We very much appreciate your understanding of the details of this document and your cooperation.

## 2. Requirements and Standards

These Requirements and Standards have been created based on the requirements for environmental labels which have been obtained by the Brother Group.

- (1) Suppliers may be requested to issue a certificate, or provide related materials and data, for items for which compliance is requested.
- (2) The Brother Group may make inquiries based on the measurement results of parts and materials that are sampled and measured internally.
- (3) Furthermore, in order to ensure continuous compliance with the environmental labels, depending on the results of inquiries, etc., the Brother Group may conduct an audit.

The target environmental labels are as follows:

- Blue Angel
- Eco Mark (Japan)
- Nordic Swan (five northern European countries including Denmark and Iceland)
- EPEAT (USA)
- Eco-Label (South Korea)
- China Environmental Labelling (China)
- Green Mark (Taiwan)
- Environmental Choice (New Zealand)

\* Target environmental labels may change in the future.

## 3. Scope

These Requirements and Standards apply to all suppliers who provide parts and materials for use in Printing & Solutions Business products.

## 4. Definitions of Terms

### (1) Environmental Labels

Out of the three types of environmental labels (Types I, II, and III) standardized by the

International Organization for Standardization (ISO), this refers to Type I environmental labels that are managed by national independent third-party organizations, and are reviewed and certified based on set product classifications and decision criteria

(2) Printing & Solutions Business Products

Imaging equipment products, such as printers, multifunction devices, fax machines, label writers, label printers, and scanners

(3) Casing Parts

Parts that form an outer cover to protect equipment from environmental effects, and to protect users from moving parts, parts that generate heat, parts that emit light, or parts that are electrified

(4) Risk Phrases

Out of classification numbers that indicate the risk content of hazardous chemicals established by the European Union (EU), this refers to classifications under EU CLP Regulation (EC) No. 1272/2008

5. Requests to Suppliers of Parts

5.1. Common Matters for All Brother Suppliers

Do not use parts in excess of the cadmium standard, even if exemptions based on the EU RoHS Directive have been applied. However, items for which exemption will end within one year are excluded.

5.2. Cartridge Parts (Ink and Toner)

Do not use polyvinyl chloride (PVC) for cartridge cases.

5.3. Plastic and Rubber Parts

The following chemicals a) through c) contained in plastic Casing parts with a weight of 25 g or more that are used for product bodies and cartridges, or in plastic parts with a weight of 25 g or less that are used for control panel keys and buttons, should each be less than 0.1% (1000 ppm) by unit of weight. Furthermore, do not exceed the applicable regulation values for d) below.

a) The following halogen-containing polymers and organic halogen compounds

- Bromine and chlorine derived from brominated flame retardants (BFR), chlorinated flame retardants (CFR), or polyvinyl chloride (PVC)
- Hexabromocyclododecane
- Decabromobiphenyl ether
- Tetrabromobisphenol A
- Tris(2-chloroethyl) phosphate

- Short Chain Chlorinated Paraffins
- Medium Chain Chlorinated Paraffins

b) Chemicals that fall under one, or more than one, of the risk phrases or combinations shown in the table below

H350	Carcinogenicity
H350i	Concerns about carcinogenicity
H340	Concerns about gene damage
H360	Concerns about adverse effects on fertility or the unborn child
H411	Strongly toxic to aquatic life, concerns about long-term adverse effects on aquatic environments

\* For the chemicals under each risk phrase, check EU CLP Regulation (EC) No. 1272/2008 and any amendments as apply at the time of investigation.

c) The following plasticity reinforcing agents

- Diisononyl phthalate
- Di-n-octyl phthalate
- Di(2-ethylhexy) phthalate
- Diisodecyl phthalate
- Butyl benzyl phthalate
- Dibutyl phthalate

d) The total amount of benzo[a]pyrene should not exceed 20 mg/kg. Furthermore, the total amount of the following 16 types of polycyclic aromatic hydrocarbons (PAHs) should not exceed 200 mg/kg.

- Naphthalene
- Acenaphthylene
- Acenaphthene
- Fluorene
- Phenanthrene
- Anthracene
- Fluoranthene
- Pyrene
- Chrysene
- Benzo[a]anthracene
- Benzo[b]fluoranthene

- Benzo[k]fluoranthene
- Benzo[e]pyrene
- Dibenzo[a,h]anthracene
- Indeno[1,2,3-cd] pyrene
- Benzo[g,h,i]perylene

#### 5.4. Toner and Ink Materials

Do not add any of the following chemicals as chemical substances in toner or ink.

- Do not intentionally add the following chemicals listed in Annex VI Table 3 of EU CLP Regulation (EC No. 1272/2008).

H350, H350i, H351	Carcinogenic substances
H340, H341	Mutagenic substances
H360, H361	Reproductive toxicants
H370, H371	Persistent bioaccumulative toxic substances
H372, H373	Very persistent and very bioaccumulative substances

- Do not intentionally add substances in the latest version of the SVHC based on Article 59 of the EU REACH Regulation (EC No. 1907/2006) at the time of application.
- Do not intentionally add nickel or its compounds. Provided that high molecular nickel compounds are excluded.
- Do not add azo dyes that may release carcinogenic aromatic amines that are listed in Appendix 8 of Annex XVII of the EU REACH Regulation (EC 1907/2006).
- Only substances authorized in the list of active substances in Product Category 6 in Annex I of the EU Biocidal Products Regulation (EU No. 528/2012) may be used.

#### 5.5. PCBs

Polybrominated biphenyls, polybrominated diphenyl ethers, decabromodiphenyl ether, and chlorinated paraffins should not be added to the supporting substrates that are components of PCBs.

Do not use the following chemicals regulated under the Montreal Protocol in the final processing of equipment, or during circuit board manufacturing.

- CFCs
- HCFCs
- 1,1,1-trichloroethane or carbon tetrachloride

#### 5.6. Liquid Crystal Panels

Please have a certificate issued to denote that a control unit has been installed and is being operated to collect or destroy fluorinated gases generated during the manufacture of flat panel displays.

#### 5.7. Batteries

The batteries contained in products should not have more than 0.0005 percent mercury (Hg) by weight, 0.002 percent cadmium (Cd) by weight, or 0.004 percent lead (Pb) by weight (in accordance with EU Directive 2006/66/EC and EU Directive 2013/56/EU).

#### 5.8. External Power Cables

Do not use any of the following phthalates in external power cables.

- Bis (2-ethylhexyl) phthalate
- Dibutyl phthalate
- Butyl benzyl phthalate
- Dicyclohexyl phthalate
- Diisobutyl phthalate
- Diisononyl phthalate
- Diisodecyl phthalate
- Di-n-octyl phthalate
- Dihexyl phthalate
- Diethyl phthalate
- Dialkyl phthalate
- Bis(2-methoxyethyl) phthalate
- Diisoamyl phthalate
- Di-n-pentyl phthalate

In addition, the total amount of the following 16 types of polycyclic aromatic hydrocarbons (PAHs) should not exceed 200 mg/kg in external power cables.

#### Compound English name

- Naphthalene
- Acenaphthylene
- Acenaphthene
- Fluorene
- Phenanthrene
- Anthracene

- Fluoranthene
- Pyrene
- Chrysene
- Benzo[a]anthracene
- Benzo[b]fluoranthene
- Benzo[k]fluoranthene
- Benzo[e]pyrene
- Dibenzo[a,h]anthracene
- Indeno[1,2,3-cd] pyrene
- Benzo[g,h,i]perylene

## 5.9. Packaging Materials

### 5.9.1. Plastic Packaging Materials

Plastic materials to be used as plastic packaging materials should not contain organic halogen compounds.

Do not use chlorofluorocarbons (CFCs) or hydrochlorofluorocarbons (HCFCs) as foaming agents in plastic packaging.

### 5.9.2. Paper-Based Packaging Materials

Do not use chlorine to bleach unused or reused fibers used for product packaging.

Recycled pulp-blending ratio in paper-based packaging materials should be a minimum of 50% in cardboard and 80% in paperboard.

## 5.10. Enclosed Printed Items

Bookbinding should be in a form that does not prevent the recycling of used paper. Chlorine should not be used in the pulp bleaching process for paper, and paper should have a recycled pulp-blending ratio of at least 30%.



6. Revision History

Date	Details	Remarks
2021/9/24	New (version 1)	