

FOR SUPPLIERS

**Survey Manual for
Contained Chemical Substances**

Ver.3

May, 2018

FDK CORPORATION

All Rights Reserved, Copyright © FDK CORPORATION 2018

TABLE OF CONTENTS

1. PURPOSE	3
2. SCOPE	3
3. GENERAL DEMAND MATTER	3
4. DEFINITION OF TERMS	3
5. CONTENT OF SURVEY	6
6. PREPARING AND SUBMITTING SURVEY DOCUMENT	6
7. CONTACT	10
AMENDMENT HISTORY	11

ANNEX

[ANNEX 1]	Examples of Component
[ANNEX 2]	Certification That Product Does Not Contain Banned Substances (Form 001(----- , -----))
[ANNEX 3]	Table of Compositions (Form 002(March, 2015))
[ANNEX 4]	Example of filling in Form 002

1. PURPOSE

The main enumeration has aimed to understand the chemical contained in the procurement parts of FDK group (hereafter referred to as “FDK”) and the packaging materials to offer the market FDK product which guarantees to satisfy demand on the FDK Group Specified Chemical Substance List and to prevent content in the FDK product of the use banned chemical substance demanded in the market.

2. SCOPE

This survey is applicable for the FDK procured parts and their packaging materials. In case of the packaging materials for FDK procured parts, this survey is applicable only for the materials ordered by FDK.

3. GENERAL DEMAND MATTER

(1) Banned chemical substance

FDK procured parts and their packaging materials should satisfy standard of banned substances described on FDK Group Specified Chemical Substance List.

(2) Submitting survey document

Please submit survey document to FDK according to this manual.

4. DEFINITION OF TERMS

(1) Procured Parts (Deliverables on FDK Group Specified Chemical Substance List)

All the parts (including raw materials), sub-materials and production subsidiary materials constituting comprise FDK’s products.

(2) Products

1. Products designed, produced and sold by FDK.
2. Products designed and produced by a third party under commission from FDK and are sold with FDK’s trademark.
3. Products designed and produced by FDK under commission from a third party.

(3) Packaging Materials

Materials used to wrap or pack FDK’s procured parts or products

Examples: Cardboard boxes, inks, paints, wrapping bands, labels, and adhesives.

(4) Sub-materials

Materials used to satisfy the functions of products. Examples: Adhesive tapes, solders, adhesives, and paints (including coatings and platings).

(5) Production Subsidiary Materials

Materials, not directly affecting the functions of products, but used in the production process of products and adhered to products.

Examples: Inks used in inspection (if adhered to products), labels, and residues of wax/tapes used for temporary fixation.

(6) Contained Chemical Substances

Chemical substances contained in FDK's procured parts, products and packing materials.

(7) Contain

This term indicates that chemical substances (including impurities) are, whether intentionally or not, added, filled, mixed or adhered to FDK's procured parts, products and packing materials.

(This term also indicates that chemical substances are unintentionally mixed or adhered to products during the production process.)

(8) Intentional addition

Deliberate use in the formulation of Deliverables where its presence is desired to provide a specific characteristic, appearance or quality regardless of concentration of the chemical substance.

(9) Material

Homogeneous material which cannot be decomposed further more or composite material which can be regarded as homogeneous in order to fulfill its specific function(s), for which it is set or formed at particular position.

(10) Impurities

This term indicates substances which are contained in natural materials and cannot be technically removed completely by refinery processes as industry materials, or substances which are generated in synthetic reaction and cannot be technically removed completely.

(11)Preparation

A mixture or solution composed of two or more substance.
(e.g. adhesives, plating solution, coating materials)

(12)Chemical Product

Chemical substance and/or mixture.

(13)Chemical Substance

A chemical element or compound that either exists in nature or is obtained through a manufacturing process.

(14)Mixture

A mixture intentionally comprising two or more chemical substances.

(15)Article

An item of specific shape, appearance or design created during manufacture which substantially determines functions in final use rather than functions provided by its chemical composition.

(16) Acceptable Limits

Maximum concentration never be exceeded in ppm of a target contained chemical substance in a material which cannot be separated into different materials mechanically (a homogeneous material).

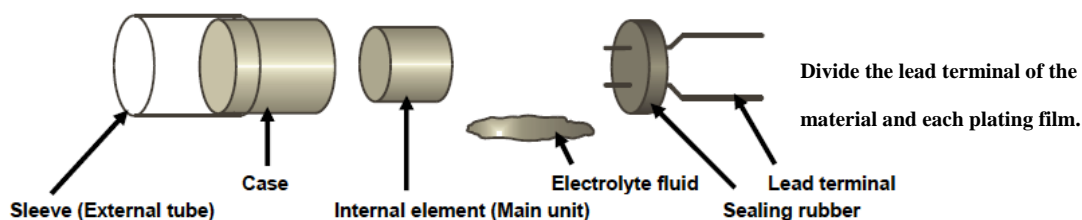
(17)Content Rate

Concentration of a chemical substance, used unit of [ppm] (weight ratio, 1 ppm is one-millionth), or used of [wt%] (weight ratio, 1 wt% is one-hundredth).
(How to calculate of the content rate in each specified substance are referred the annotation of each table.)

(18)Components

A component is a portion of a part and is made of a material which cannot be separated into different materials mechanically (a homogeneous material).
The names of components to be used are those used in specification for delivery, drawings, or the like.

The composition part of which the example is electric parts (resistor and capacitor, etc.) is shown as follows. Refer to [ANNEX1] for other cases.



(19) CAS No.

A registration number for a chemical substance used in the chemical substances registration system in the CAS (Chemical Abstract Service) which was established by the American Chemical Society. It is also called as a CAS number.

5. CONTENT OF SURVEY

Please examine and grasp the information of contained chemical substances in your delivered parts and their packaging materials to FDK (the FDK procured parts and their packaging materials), and prepare the following documents based on the results and submit them to us.

- (1) Certification That Product Does Not Contain Banned Substances [ANNEX2]
(Form 001(-----, -----))
- (2) Table of Compositions (Form 002(March, 2015)) [ANNEX3]
Example of filling in Form 002 [ANNEX4]
- (3) Survey sheet of contained chemical substance
(chemSHERPA-AI or chemSHERPA-CI) provided by JAMP
- (4) Analysis Data (ICP Analysis Data, Atomic Emission Spectroscopy Data,etc.)
- (5) SDS (Material Safety Data Sheet) and others

6. PREPARING AND SUBMITTING SURVEY DOCUMENT

Please follow the instructions below when preparing and submitting each document.

(1) Certification That Product Does Not Contain Banned Substances

(Form 001(-----,-----)) - [ANNEX 2]

”This is a document that certifies that the content levels of chemical substances in your delivered parts and their packaging materials to FDK are below the acceptable limits of the Management Standards for FDK Contained Chemical Substances.”

- ① Please enter Company Name, Department, Position & Name of Responsible person and stamp Company Seal.
- ② As information of Responder for this certification, please enter Address, Section, Name of responder, TEL, E-mail.
- ③ In the space for comment (FDK → supplier): Please specify “Subject products(group) of non-contain” or “Not applicable products(group) of non-contain” if necessary. Describe in the other sheets also allowed.
- ④ Please submit your document in the form of Adobe Acrobat document(pdf format).

(2) Table of Compositions (Form 002 (March, 2015)) - [ANNEX3] [ANNEX4]

”This is a table of compositions, constituents and their purposes of your delivered parts and their packaging materials to FDK. This table is useful to grasp all the contained chemical substances and respond to various surveys of contained chemical substances in the market.”

- ① Please prepare the certificate with respect to each delivered parts.
- ② Please enter FDK EDP KEY, FDK Part Name, FDK Standard and Drawing No., Your Part Name (Our Part Name in [ANNEX3]) , and Your Standard for specifying the delivered parts.
- ③ Please enter Date, Company name, Department, Responsible person, TEL No., and E-Mail address.
- ④ Please enter the product weight in “mg” .
- ⑤ The explanations for items in the Table of Compositions and the instruction to fill in the table are as follows.

⑤-1 Number: Please assign a number for each component and fill in the number.

⑤-2 Component:

⑤-2-1 A component should be made of a homogenous material (a material which cannot be separated into different materials mechanically).

⑤-2-2 The names of components to be used are those used in specification for delivery, drawings, or the like. Please fill in these names.

[NOTE] Examples: Components to be considered as different ones.

- a. “Metals” as base materials of structural members and plates, and “Plating Layers”, “Chromate Films” and “Coating Films” on the surface of parts.
- b. Formed “Plastics (Synthetic Resin)”, “Ink” printed on the surface, and “Coating Layers.”
- c. “Metals” used for the wiring of printed circuit boards or LSIs, and “Resin” and “Glass” used for insulation.

⑤-3 Substance Name and CAS No.:

Please fill in the substance names and CAS No. for all compositions of each component. If a substance does not have a CAS No., please just fill in its substance name.

When there is not enough space, please insert new rows and fill in.

⑤-4 Content:

Please fill in the weights of substances composing a component in “mg”.
Please make sure that the total content of substances in a component is equal to the weight of a product.

⑤-5 Purpose of Contained Chemical Substance:

Please select one item from the followings.

”Primary Ingredient”, “Improve Heat Stability”, “Vulcanizing Agent”, “Pigment or Colorant”, “Improve Flame Resistance”, “Improve Workability”, “Improve Mechanical Property”, “Improve Friction or Wear Performance”, “Improve Anticorrosion Performance”, “Improve Electrical Property”, “Unintentionally Contained” or “Others (***)”. In case of the “Others (***)”, please fill in the appropriate purpose in parentheses.

⑤-6 Analysis Data (ICP etc.):

Please fill in the serial numbers of each analysis data. (The serial number is a number assigned to an analysis data, which is to be submitted to FDK, by your company.)

⑤-7 SDS:

Please fill in the SDS serial numbers of each component. (The serial number is a number assigned to an analysis data, which is to be submitted to FDK, by your company.)

⑥ Please submit your sheet in the form of Microsoft Excel worksheet (xls format).

When there is not enough space, please insert new rows and fill in.

(3) Survey sheet of contained chemical substance (use either chemSHERPA-AI or chemSHERPA-CI) provided by JAMP

”This is a survey using a survey sheet provided by JAMP for delivered parts and their packing materials to FDK.”

① The form of survey sheets are following.

/ chemSHERPA-AI: use for product parts

/ chemSHERPA-CI: use for raw material, material or chemical substances

- ② Please download latest version of chemSHERPA-AI or chemSHERPA-CI format from Following Homepage.

JAMP (Joint Article Management Promotion-consortium) <https://chemsherpa.net/>

- ③ Please submit your document in the form of shai.

[NOTE] Providing of compliance information by chemSHERPA is voluntary.

(4) Analysis Data (ICP Analysis Data, Atomic Emission Spectroscopy Data, GC/MS Data etc.)

This is an analysis data of specified chemical substances. This is an evidence for the contents of the Table of Compositions and Survey Sheet.

- ① If the “Component” of a delivered part is applicable to one of the following, please prepare quantitative analysis data of the target substances for each “Component”.

- ①-1 In case the delivered part is parts (including raw materials), sub-materials or production subsidiary materials, and the component is “Resin”, “Ink” or “Coating Materials”.

Target Substance: Cadmium (Acceptable limits: below 5 ppm) and Lead (Acceptable limits: below 100 ppm)

Method of Analysis: Any method is applicable if the quantitative limit for each target substance is assured to be lower than its acceptable limit. (Reference) Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES: JIS K0116 compliance)

- ①-2 In case of “Chromate Films” of plating:

Target Substance: Hexavalent chromium (Acceptable limit: below 1000 ppm)

Method of Analysis: Any method is applicable if the quantitative limit for the target substance is assured to be lower than its acceptable limit.

- ①-3 In case the delivered part is packaging materials:

Target Substance: Heavy metals (Cadmium, Lead, Mercury, and Hexavalent chromium) (Acceptable limits: below 100 ppm in total)

Method of Analysis: Any method is applicable if the quantitative limit for each target substance is below 5 ppm.

- ② Please write your company’s serial numbers (e.g. ICP-001) on the analysis data.

③ Please submit your document in the form of Adobe Acrobat document (pdf format).

(5) SDS (Material Safety Data Sheet) and others

This is a data sheet describing the compositions contained in the materials in procured parts. This is an evidence for the contents of the Table of Compositions and Survey Sheet.

① Please prepare the precise SDS of the delivered parts.

② Please assign and write your reference No. on SDS.

③ Please submit your document in the form of Adobe Acrobat document (pdf format).

7. CONTACT

If you have any questions, please contact the representative of FDK on this matter. For general information on this matter, please email to the following address.

2281 Washizu, Kosai-shi, Shizuoka-ken, Japan 431-0495

FDK CORPORATION

Corporate Group Business Promotion Div SCM Dept. Procurement Management Sec.

TEL: 053-576-2152

FAX: 053-575-2526

E-MAIL : koubai@fdk.co.jp

Quality Assurance Division

TEL: 053-575-2511

FAX: 053-575-2615

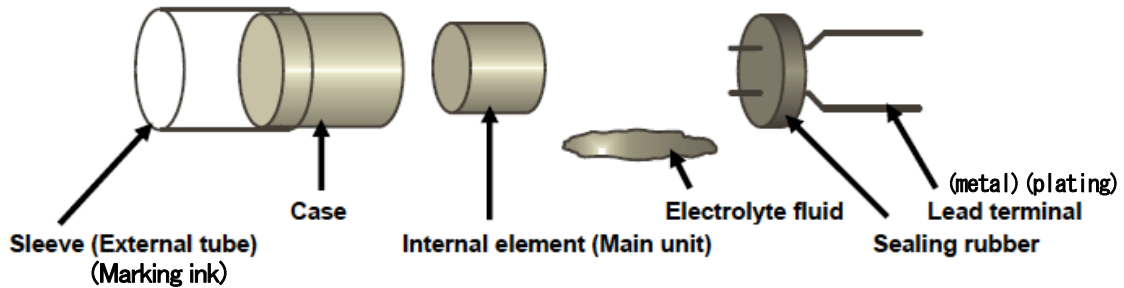
AMENDMENT HISTORY

Revision Date	Version	Description of Revision
April 2005	1	Established
August 2005	1a	<i>Survey Sheet</i> and <i>Table of Compositions</i> are modified for <i>Product Weight, Content</i> , etc. containing figures below the second decimal place, which is formerly restricted by canceling entry restriction. Submission of <i>Certificate of Non-containment</i> and <i>Certificate of Contents</i> as written documentation is added.
July 2007	1b	Modified in accordance with <i>Management Standards for Contained Chemical Substances</i> (FDK508-01), the second edition (Annex 1, Annex 2, Annex 4, and Annex 12 are modified.)
May 2008	1c	Modified in accordance with <i>Management Standards for Contained Chemical Substances</i> (FDK508-01), the third edition (Annex 1, Annex 2, Annex 4, and Annex 12 are modified.)
July 2010	1d	[ANNEX 2]List of FDK Group is deleted. [ANNEX 2] is advanced and the ANNEX number by the deletion is advanced. Modified in accordance with <i>Management Standards for Contained Chemical Substances</i> (FDK508-01), the 4th edition (Annex 1, Annex 2, Annex 4, and Annex 12 are modified.)
April 2015	2	Modified in accordance with Management Standard for Contained Chemical Substance (FDK508-01) the fifth edition. /Add and modified definition of terms. /Modified form and contents for “Certification That Product Not contain Banned Substance” sheet. [ANNEX2]. /The space for FDK Substance No. in the “Table of Composition” is deleted. /Deleted “FDK Survey sheet of Contained Chemical Substance” and apply the sheet which provided by JAMP instead. /The document “Certificate of Contains” is deleted. /Change the title of MSDS(Material Safety Data Sheet) to SDS(Safety Data Sheet). /Item Related Laws and Regulations of Contained Chemical Substance is deleted. /Contact representative FDK Environmental Technical Department is changed to Quality Assurance Division.
May 2018	3	The survey sheet of contained chemical substance provided by JAMP was modified to use either chemSHERPA-AI or chemSHERPA-CI.

[ANNEX1] Examples of Component

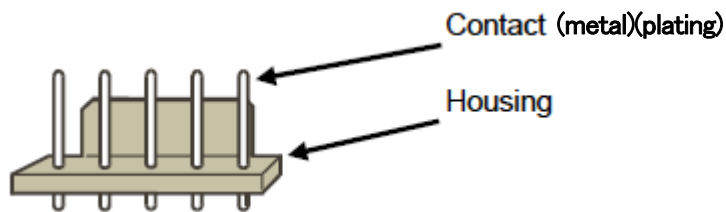
[Component part, example 1]

Component part: Sleeve, Case, Internal element, Electrolyte fluid, Sealing rubber, Lead terminal



[Component part example, example 2] Connectors

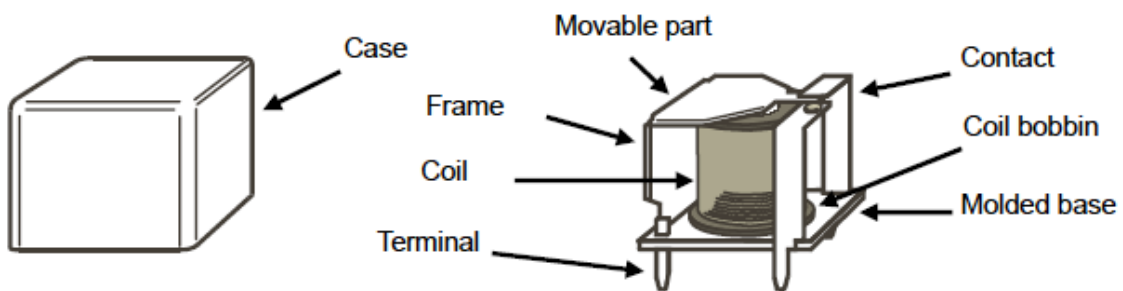
Component part: Housing and contacts



[Component part, example, example 3]

Switches, relays, and other parts with mechanical component.

Component parts: Part case (molded plastic, etc.), metal components (lever, frames, etc.), and moving parts (contact points, etc.)

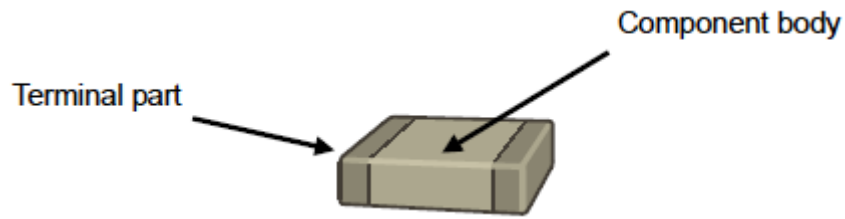


*** Please pay particular attention to special metals (alloys) used for plastic flame-retardants , and electrical characteristics and lubrication of contact points.**

[Component part, example, example 4]

Surface mount type chip parts

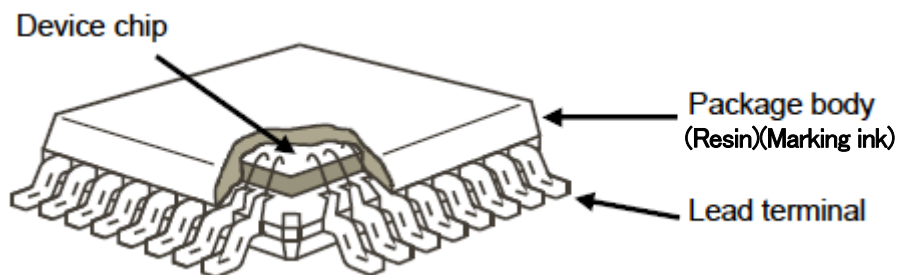
Constituent sections: Terminal parts, component body



* The main body of the part is made of multiple materials and substance concerned is present, break it down,
 e.g.) part (main body) → ceramic and electrode

[Component part, example, example 5] Semiconductor device

Constituent sections: Lead terminals (lead frame etc.), package body (molded resin etc.), device chip (Chip, Adhesive, Bonding wire)

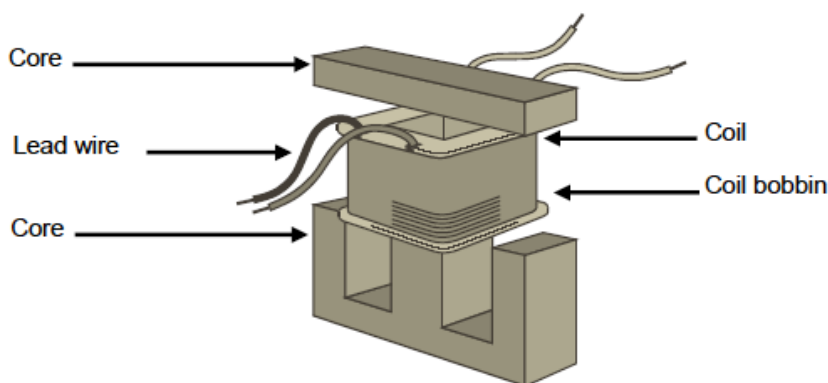


*Please pay particular attention to any flame retardants in the package plastic, and the lead material and treatment.

*make the response concerning the device as best you can .

[Component part, example, example 6] Transformers, Inductors

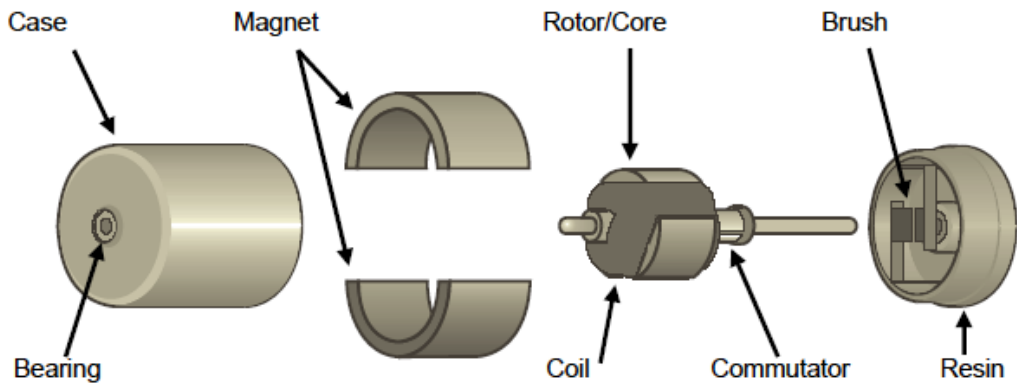
Constituent sections: Core, coil, bobbin, lead wire, insulation, case/frame etc.



*Please pay particular attention to flame retardants in plastic materials or insulating parts, inpregnant in the coil , PVCs or flame retardants in the lead wire.

[Component part, example, example 7] DC motors

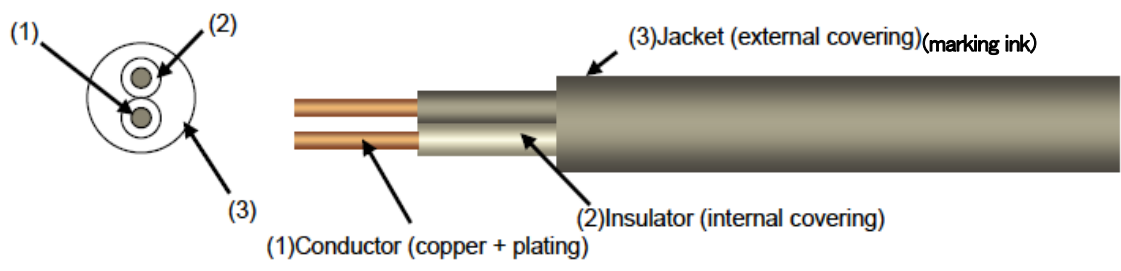
Constituent sections: Part case (molded resin etc.), metal parts (shaft, rotor/core, terminals, frame etc.), brushes etc., magnets, coil, other



***Please pay particular attention to special metals (alloys) used for flame retardants in plastic, and electrical characteristics and lubrication in commutators, as well as grease in bearings.**

[Component part, example, example 8] Power cable (Power cord)

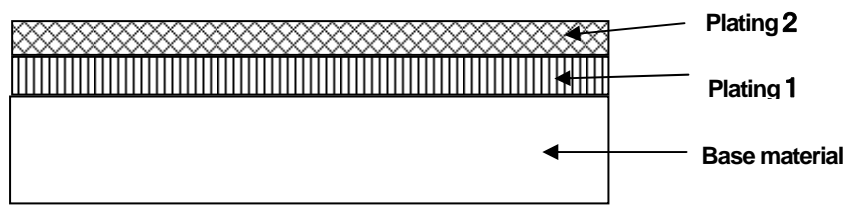
Constituent sections: Conductor (copper + plating), insulator (internal covering), jacket (external covering + marking ink)



[Component part, example, example 9]

Surface treatment material (paints and plating, etc.)

Constituent sections: Base material, Plating 1, Plating 2,



***Please pay particular attention to each layer when the surface treatment is a multilayer film.**

Issued on: year/month/date

To FDK CORPORATION

Certification That Product Does Not Contain Banned Substances

We (including our subsidiary or affiliate companies) hereby certify any new and existing products or components (including accessories, packaging and any other things incorporated with products) delivered to FDK CORPORATION in directly or through third party comply with the requirement provided in FDK group designated chemical substances list.

Additional requirement

Company Name/

Department/

Position & Name of responsible person /

Responder of this certification is following.

Address/

Section/

TEL/

Name/

E-mail/

Company Seal or Signature

comment (FDK→supplier) Please list applicable products to this certification in this section.

comment (supplier→FDK) (ex. the number of products)

※ If you consider some products are not applicable to FDK standard for banned substance, please let us know soon.

[ANNEX 3]

TO FDK CORPORATION

TABLE OF COMPOSITIONS

FDK EDP KEY	
FDK Part Name	
FDK Standard and Drawing No.	
Our Part Name	
Our Standard and Drawing No.	
Name of Manufacturer	
Product Weight (mg)	

Date (YYYY/MM/DD)	
Company Name	
Department	
Name of Responsible Person	
TEL	
E-MAIL	

No.	Component Part	Substance Name	CAS No.	Content (mg)	Purpose of Including	Analysed Data (ICP etc.)	SDS	Remarks
Total Content (mg)				0				

[ANNEX 4]

TO FDK CORPORATION

TABLE OF COMPOSITIONS (EXAMPLE)

FDK EDP KEY	
FDK Part Name	
FDK Standard and Drawing No.	
Our Part Name	Transformer 002A
Our Standard and Drawing No.	DDD-1111-10
Name of Manufacturer	ABC Industry
Product Weight (mg)	45000

Date (YYYY/MM/DD)	
Company Name	
Department	
Name of Responsible Person	
TEL	
E-MAIL	

No.	Component Part	Substance Name	CAS No.	Content (mg)	Purpose of Including	Analysed Data (ICP etc.)	SDS	Remarks
1	Core	Iron oxide	1309-37-1	2700	Others(constituent)	—	SDS001	
1	Core	Trimanganese tetraoxide	1317-35-7	2700	Others(constituent)	—	SDS001	
1	Core	Zinc oxide	1314-13-2	12600	Others(constituent)	—	SDS001	
2	Core cover	Propylene homopolymer	—	2751.96	Primary ingredient	ICP001	SDS002	
2	Core cover	Antimony trioxide	1309-64-4	242.82	Improve Flame Resistance	ICP001	SDS002	
2	Core cover	Organic halogen compound	—	1052.22	Improve Flame Resistance	ICP001	SDS002	Excluding PBB and PBDE
3	Base	Phenolic resin	9003-35-4	393.9	Others(molding material)	ICP002	SDS003	
3	Base	Paper	—	386.1	Others(constituent)	ICP002		Number of characters : Up to 40 characters
4	Wire (Conductor)	Copper	7440-50-8	19601.4	Primary ingredient	-	SDS004	
5	Wire (Insulator)	Polyurethane resin	—	502.6	Others(insulation)	ICP003	SDS004	
6	Adhesive	Silica	7631-86-9	1200	Primary ingredient	ICP004	SDS005	
6	Adhesive	Titania	13463-67-7	400	Others(constituent)	ICP004	SDS005	
6	Adhesive	Dialkyltin compound	—	20	Others(constituent)	ICP004	SDS005	
6	Adhesive	Others	—	380	Others(constituent)	ICP004	SDS005	
7	Solder	Tin	7440-31-5	68.48	Primary ingredient	—	SDS006	
7	Solder	Copper	7440-50-8	0.52	Others(constituent)	—	SDS006	
Total Content (mg)				45000				

Form002 (March,2015)

Please make sure to fill in "Total Content (mg)" in the last row of your table.

Please make sure that the product weight is equal to the total content of substances.

When there is not enough space, please insert new rows to your table and fill in. However, please do not move or insert any columns.