



Document number: EKCP-446810-T01

**Guideline on Environmentally Hazardous
Substances of Connector Products Division,
Corporate Electronic Parts Group, KYOCERA
Corporation**

28th Edition

Initial release: August 1, 2005

Last revision: January 26, 2026

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Attachment 3: Certificate of non-use of environmentally hazardous substances

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(For plating subcontractors only)

Attachment 6: List of applicable major laws & regulations

Preface

Since its foundation, Kyocera has carried out activities based on its corporate motto “Respect the Divine and Love People” and its management rationale “Contribute to the Advancement of Society and Humankind While Pursuing the Material and Spiritual Happiness of All Employees.”

Adhering to this management attitude, Kyocera and its domestic and foreign affiliates have promoted the development and commercialization of solar cells and other products that contribute to global environmental preservation. Additionally, the Kyocera group has undertaken other active efforts for environmental preservation, including environmental management at its plants to reduce damage to the natural environment and adverse influences on the ecosystem.

In August 1998, Kyocera commenced efforts on the framework of its green procurement, which involves the selection of products to be procured on the basis of consideration of environmental issues. This move was due to our judgment that in order to reduce the environmental impact associated with our products, we needed to reduce such impacts attributed to parts built into the products, as well as materials procured by us.

In December of the same year, we published our Guideline on Green Procurement, which outlines our approach to green procurement, our related requests to suppliers, and other relevant matters. Based on the Guideline, we have been successfully carrying out green procurement activities, thanks to the understanding and cooperation of our business partners.

In our "Green Supplier Certification System" that began in 2008, we believe that our concept of environmentally hazardous substance management activities has been well understood.

We have divided our conventional “Kyocera Green Procurement Guideline” into two and established guidelines “Kyocera Guideline on Environmentally Hazardous Substances” that specifies the standards for product specifications for promoting green procurement and “Kyocera Guideline on Environmental Protection Activities (for Partners)” that describes the guiding principles for Kyocera’s idea of environmental protection activities.

Nowadays, legal regulations on environmental affairs as well as growing public demand for environmental protection have been more and more strengthened. We need cooperation of our business partners for complying with their requirements.

Accordingly, we ask for your understanding of the purposes of these activities, as well as your cooperation in this regard.

Kyocera Group Environmental safety policy

Since its foundation, Kyocera has pursued the physical and mental well-being of all its employees under the corporate creed of Keiten-Aisin, and at the same time has adopted the management philosophy of contributing to the advancement and development of human society. In addition to complying with laws and regulations related to environment and safety, the matters to which Kyocera has agreed, and voluntary standards, Kyocera will continue to take on the challenge of solving social issues through communication with various stakeholders, participation in social contribution activities, and support, making the most of the technologies and know-how it has cultivated.

1.Ensuring the safety and health of employees

- To realize a safe and secure workplace for all employees, we will create a corporate culture in which all employees involved in business activities participate in activities.
- We conduct risk assessments to eliminate hazards and reduce occupational health and safety risks in order to prevent accidents and disasters.
- We will promote physical and mental health, and create a working environment in which employees feel satisfied and able to maximize their abilities.

2.Contributing to a Sustainable Society

- We will research, develop, and promote products that contribute to the improvement of the global environment and products that reduce environmental impact throughout their life cycles.
- We will contribute to the realization of a decarbonized society by controlling greenhouse gas emissions throughout the value chain.
- We will contribute to the realization of a recycling-based society by using resources more efficiently.
- We strive to prevent environmental pollution by properly managing chemical substances in all processes.
- We will promote biodiversity conservation by minimizing the impact on the natural environment and protecting and nurturing it.

3.Operation of the environment and safety management system

- In our business activities, we will actively promote environmental and safety initiatives based on our management philosophy and continuously improve our environmental and safety performance through the operation of our management system.

“Green Procurement” activities in Connector Products Division, Corporate Electronic Parts Group, KYOCERA Corporation

Connector Products Division of Corporate Electronic Parts Group in KYOCERA Corporation is promoting to procure materials and sub-materials that are environment-friendly and ask suppliers for their cooperation based on “Guideline on Environmentally Hazardous Substances.”

The following three points are specified in “Guideline on Environmentally Hazardous Substances” to promote the activities.

1. Basic concept of Green Procurement

Connector Products Division, Corporate Electronic Parts Group, KYOCERA Corporation is promoting to purchase and use materials according to the concept of “To determine the specification for materials in purchasing, and to select and procure materials so that environmental impact could be reduced in every phase such as production, distribution, use and discard.”

2. Investigation of the situation of environment conservation activities in suppliers and environmental audit for them

Suppliers’ situation of obtaining ISO14001, environmental controlling, or so are regularly subjected to our investigation. As a result of the investigation, requirements will be distributed to customers who are regarded as ones that require improvement in their environmental control, and their environment will be audited as needed.

3. Control of chemical substances included in purchased items

All of purchased items such as products, parts, materials, packaging materials and other sub-materials shall be subjected to our confirmation for inclusion of prohibited substances by making arrangements such as obtaining environmental materials such as SDS, ICP, JAPIA sheet, CAMDS, IMDS, and chemSHERPA and Certificate of non-use of environmentally hazardous substances. And then only items that do not contain prohibited substances will be purchased by us.

1. Purpose

“To procure products and services that have lesser impact on environment from suppliers who are aggressively striving for activities of environment conservation” is regarded as the green procurement by us. In order to achieve the concept, suppliers and their products to be purchased by us will be investigated for their activities of environment conservation and environmental considerations on products, and suppliers who are striving and vigorously adopting ecological system for global environment will be made an engagement with us preferentially.

With putting this Guideline into effect, we, Connector Products Division, would like to supply products that contribute to improve the global environment and that can reduce environmental impact in every phase such as production, sales, distribution, use and discard. Also we are aiming for “Zero non-conformity of containing environmentally hazardous substances”.

We would ask for your vigorous cooperation based on this Guideline.

2. Scope

Materials, parts, and assemblies that are ordered by us, Connector Products Division, for connector production, and Materials/sub-materials that may come into direct contact with the product in the process of manufacturing them. (For materials and sub-materials in details, see “2) Material/Sub-materials” in “3. Terminology” below.)

As for materials/sub-materials, however, those that can be removed by cleaning or so in the process are excluded from here, while only those that have a possibility of being residual substances in materials, parts, and assemblies that will be delivered to us are the target.

3. Terminology

1) List of environmentally hazardous substances (Attachment 1.)

- a) Prohibited substances: G-1 and later
Substances that should not be contained in parts and products. In addition, Use of G-16 ozone-depleting substances (including HCFC) and ☒mark in the manufacturing process is also prohibited. (Refrigerants and fire extinguishing applications are not covered.)
- b) Abolished substances: Z-1 and later
Substances that should not be included in parts/products after due date of the abolishment.
Only if it is found that an alternative substance to be used is determined technologically, using the substance to be abolished shall be banned before the due date.
If there is no alternatives and use of the abolished substance is approved as an exemption by laws or regulations, the due date shall be reviewed.
- c) Substances to be controlled: K-1 and later
Substances of which content shall be comprehended and controlled.
- d) Declarable substances: R-1 and later
Substances to be comprehended, controlled and reported when there is a possibility of being contained in or attached to products.
- e) Intentional use:
Manufacturers intentionally add environmentally hazardous substances and/or use materials to which such substances are added in order to make the basic raw materials as ingredients, performance and functions suitable for the purpose and to maintain conditions and such during process.

f) Contain

The followings are regarded as "contain":

- (1) Whether intentionally or not, to contain chemical substances as ingredients or contents in parts, materials, or products.
- (2) To add chemical substances in the production process in order to keep process conditions, quality, and such, which results in parts, materials, and products containing such substances.
- (3) To use chemical substances in the production process and they are remained in or adhered to

final products or parts, materials, or products.

Chemical substances contained in natural materials or residues after refining industrial process are also construed as "contain" (impurities). Provided, however, that it is not regarded as "contain" when there is no technical predictive values or information on contents unless containing such substances is against laws and/or regulations in Japan or other countries.

g) Impurity

The followings are regarded as "impurity/impurities":

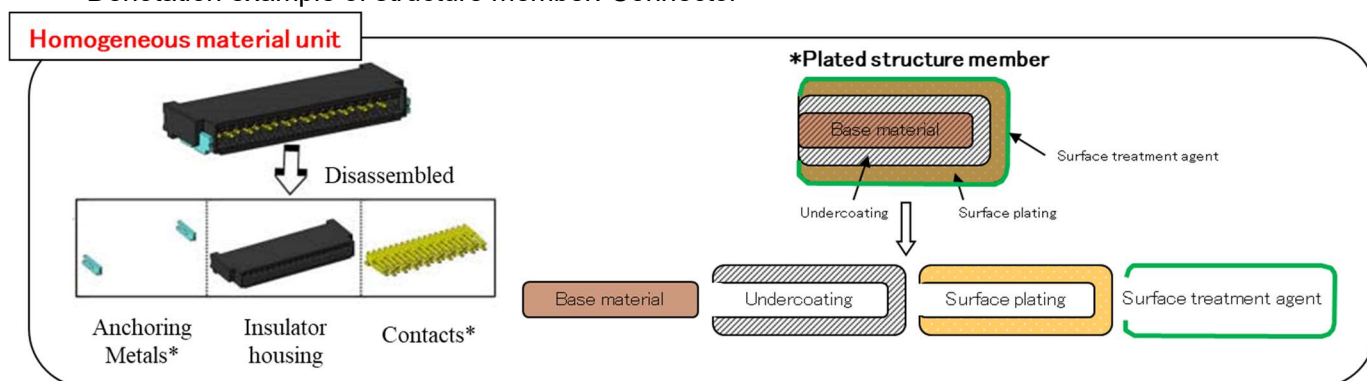
- (1) Substances which are contained as industrial material in a natural raw material and cannot be removed completely through existing technology in the refining processes
- (2) Substances generated through synthetic reaction processes, which could not be completely removed through existing technology

h) Structure member (Object member)

Means "material unit considered homogeneous" containing chemical substances.

Object member means structure members in constituents of a part that contains target chemical substances of the survey.

<Denotation example of structure member: Connector>



i) Threshold value

Boundary value of the content concentration

The followings are the limitation of six (6) substances that are prohibited to be included in products by RoHS Directive unless otherwise included intentionally.

If any of our customer specifies the value other than those mentioned below, the customer's one shall prevail.

Substances	Organic material (Plastic, Paint, Ink)	Inorganic material (Metals, Others)
1. Cadmium & its compounds	Less than 5 ppm	Less than 80 ppm
2. Leads & its compounds (*1)	Less than 50 ppm	Less than 800 ppm
3. Mercury & its compounds	Less than 100 ppm	Less than 800 ppm
4. Hexavalent chrome compounds	Less than 100ppm	Less than 800 ppm Less than 0.1 $\mu\text{g}/\text{cm}^2$ (*2)
5. PBBs	Less than 100 ppm	Less than 300 ppm
6. PBDEs	Less than 100 ppm	Less than 300 ppm

※The specified value for each single substance of PBDEs shall be less than 10ppm.

(*2) Concentration of hexavalent chromium by absorption photometry

As for alloys (such as free-cutting brass stick) in which intentional usage of lead is detectable among materials specified in drawings by us, the followings are the allowable concentration.

(* 1) Allowable concentration of various alloys

Alloy	Allowable concentration of lead
Steel	0.35wt% or less
Aluminum base alloy	0.4wt% or less
Copper alloy (Including brass and phosphor bronze)	4wt% or less

When being required of halogen-free products, the followings are the limitation of two substances.

If any of our customer specifies the values other than those mentioned below, the customer's value shall prevail.

Substance	Specified value
1. Bromine (Br)	Less than 700ppm
2. Chlorine (Cl)	Less than 700ppm
3. Bromine (Br) + Chlorine (Cl)	Less than 1300ppm

When a screening inspection is performed through XRF measurement, the following conditions shall be satisfied.

<Conditions>

- | |
|---|
| <p>(1) Determine the control method (e.g. measuring method, control value, measurement frequency, etc.) in consideration of error (accuracy) of the measurement.</p> <p>(2) Establish the control method so that the specified values of precise analysis would never be exceeded.</p> <p>(3) Keep the evidence of the control method mentioned above to demonstrate there is no problem in it.</p> <p>➤ Errors shall include errors of instrument itself, errors arising from a measurer, or environment-oriented errors and so on. If a measured value is beyond the specified value, please do a precise analysis.</p> |
|---|

Phthalate esters

From July 22, 2019, four (4) phthalate esters, DEHP, DIBP, DBP and BBP, will be added as restricted substances in EU RoHS directives.

Products containing more than 0.1wt% of any of four (4) phthalate esters (DEHP, DBP, DIBP or BBP) are banned from being imported and sold. Because phthalate esters may be transcribed by prolonged contact or pressure, they may be attached by mistake under the same concept as conventional prohibited substances in RoHS Directive. Materials, therefore, containing any of such should be eliminated from processes in principle. Less than 300ppm if cannot be excluded from the process Please manage with.

Substance	Specified value	CAS No.	Description
DEHP	Less than 0.1wt%	117-81-7	Bis(2-ethylhexyl) Phthalate
DIBP	Less than 0.1wt%	84-69-5	Diisobutyl Phthalate
DBP	Less than 0.1wt%	84-74-2	Dibutyl Phthalate
BBP	Less than 0.1wt%	85-68-7	Benzyl Butyl Phthalate

If it is required to regulate the use of beryllium, the value shown below shall be specified.

Substance	Specified value
Beryllium	Less than 1000ppm

If it is required to regulate the use of antimony trioxide, the value shown below shall be specified.

Substance	Specified value
Antimony trioxide	Less than 700ppm

2) Material/Sub-materials

The following materials/sub-materials shall be identified if they are compliant to the control for environmentally hazardous substance or not, and be indicated accordingly.

- Liquid used in the plating process (Waste fluid included)
- Materials and/or components of equipment or jigs that contacts parts and/or products directly (Suction nozzle, conveyer lane, and etc.)
- Oil, mold release agent, cleaning agent, chemicals, etc. used for cleaning and maintenance of equipment
- Molding materials, stamping materials
- Wires
- Reclaimed materials, recycle materials

- g) Inks and etc. for marking
- h) Paintings
- i) Adhesive agents and etc.
- j) Packing materials
- k) Others that have possibilities to touch products directly in the manufacturing process (such as green mats, fingerstalls)
- l) Parts procured by suppliers themselves (Nuts, screws and etc.)
- m) Fluxes and cleaners used in soldering process

3) Precise analysis

This is a method that aims the accurate quantitative determination in order to prove the content of substances marked with “*” in the List of environmentally hazardous substances in Attachment 1. Please refer to Table 1 for analysis method. Any third party analysis institute, such as SGS and TUV SUD, IAS, obtaining ISO/IEC17025 shall do the precise analysis.

Table 1

Substance	Pre-treatment	Method to detect
Cadmium Lead, mercury *Total chromium	IEC62321, EN13346:2000 US EPA 3052/3050B	Inductively coupled plasma atomic emission spectroscopy [(ICP-AES) (ICP-OES)] Atomic Absorption Spectrometry (AAS) Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)
*Hexavalent chrome	IEC:62321	Diphenylcarbazide spectrophotometric method (UV-VIS)
PBB/PBDB	IEC:62321	GC-MS chemical analysis
Bromin, Chlorine	IEC:62321-3-2 EN14582、ASTM D7359	Ion chromatography analysis
Antimony	EPA3052、IEC:62321	Inductively coupled plasma atomic emission spectroscopy [(ICP-AES) (ICP-OES)]
Phthalic acid, Esters	IEC:62321、EPA8061A	GC-MS chemical analysis
Beryllium	IEC:62321 US EPA 3052/ 3050B	Inductively coupled plasma atomic emission spectroscopy [(ICP-AES) (ICP-OES)]
Benzene	IEC:62321:2008	Solvent extraction, analyzed by GC-MS or HPLC-MS
Chlorinated Organic Solvents	IEC:62321:2008	Solvent extraction, analyzed by GC-MS or HPLC-MS; or EN 14582 for total chlorine
n-Hexane	IEC:62321:2008	Solvent extraction, analyzed by GC-MS or HPLC-MS
N-Methylpyrrolidone (NMP)	IEC:62321:2008	Solvent extraction, analyzed by GC-MS or HPLC-MS
Toluene	IEC:62321:2008	Solvent extraction, analyzed by GC-MS or HPLC-MS
n-Propyl bromide	IEC:62321:2008	Solvent extraction, analyzed by GC-MS or HPLC-MS, or EN14582 for bromines in total.

*: Although this aims to measure the content of hexavalent chrome, it is assured that the content of hexavalent chrome is not beyond the specified value by verifying that the measured value of total chromium is not beyond the specified value of the hexavalent chrome.

*: It may be required by some customers to analyze beryllium and/or antimony.

*: Upon request of some of our customers, suppliers of cleaning agents, oil detergents, and/or release agents should analyze Benzene, Chlorinated Organic Solvents, n-Hexane, N-Methylpyrrolidone (NMP), Toluene.

The detection limits of the chemical substances surveyed are shown below. If the analytical instrument used meets the detection limit, If not, please contact us in advance.

•Cadmium, lead, mercury	Less than 2ppm
•hexavalent chromium	Less than 8ppm
•PBB, PBDE	Less than 5ppm
•Phthalate esters	Less than 50ppm
•Halogen (Chlorine, bromine)	Less than 50ppm
•Antimony	Less than 2ppm

4. Requests to suppliers

Understanding and cooperation from suppliers are vital to promote our green procurement project. What mentioned in 4.1 through 4.7 in this document are our requests.

4.1 Certificate of containing none of environmentally hazardous substances

It shall be verified with the following procedures that environmentally hazardous substances are not contained in materials/sub-materials used in materials, parts of connectors and products that are delivered to us and their manufacturing processes.

The latest version of SDS data of materials/sub-materials shall be always kept. The SDS data shall be reviewed at least once in a half year. If it is necessary to revise the SDS data as a result of the review, it shall be revised and then the revised one shall be sent to us immediately. If no revised version is sent to us, it is regarded that nothing is revised by you. Analysis data shall be renewed once a year starting from the date of analysis, and be submitted. Note that the analysis period should not exceed one year due to the time it takes. If it is impossible for you to affirm or renew any analysis data, please notify us so with a document stating your reasons for and comments on non-renewal of the data. Such document shall be also renewed once a year starting from the date on the document , and be submitted.

1. Cadmium, lead, mercury and hexavalent chrome

For materials, parts and assemblies procured by yourself and materials/sub-materials used in processes for their manufacture, it shall be verified through the quantitative analysis that concentration of cadmium, lead, mercury, and hexavalent chrome contained in them is below the specified values.

It shall be assured as cautions in the analysis data that the data shall be; 1) provided with descriptions of pretreatment method and measuring method, (2) provided with the phrase "complete dissolution", (3) provided with the analysis flow, and 4) term of validity of the data is within a year from the date when starting the measurement.

2. PBBs and PBDEs

As for other than metal materials, it shall be verified through the quantitative analysis that concentration of PBBs and/or PBDEs contained in materials, parts and assemblies procured by yourself and materials/sub-materials used in processes to manufacture them is below the specified value.

It shall be assured as cautions in the analysis data that the data shall be; 1) provided with descriptions of pretreatment method and measuring method, (2) provided with the phrase "complete dissolution", (3) provided with the analysis flow, and 4) term of validity of the data is within a year from the date when the measurement starts.

As for metal materials, Certificate of non-use of environmentally hazardous substances shall be obtained by using Attachment 3 from makers of materials, parts and assemblies purchased by you and materials/sub-materials used in processes to manufacture them. The Certificate of non-use of environmentally hazardous substances obtained from makers shall be an evidence of none of PBBs

and/or PBDEs being contained.

Although typically the Certificate of non-use of environmentally hazardous substances obtained from makers of materials, parts, assemblies and materials/sub-materials used in processes to manufacture them shall be an evidence of non-inclusion of PBBs and/or PBDEs as described above, the appropriate action shall be taken by you if the measurement through a GC-MS analytical method is especially required by us due to the request especially made by our customer.

3. Four (4) phthalate esters, DEHP, DIBP, DBP and BBP

From July 22, 2019, four (4) phthalate esters, DEHP, DIBP, DBP and BBP, will be added as restricted substances in EU RoHS directives. As for materials, parts, parts, and assemblies purchased by you, and materials and sub-materials used in the processes to manufacture them, it shall be verified through the quantitative analysis that the content of phthalate esters, DEHP, DIBP, DBP and BBP, is under the specified value.

And it shall be assured as cautions in the analysis data that the shall be; 1) provided with descriptions of pretreatment method and measuring method, (2) provided with the phrase "complete dissolution", (3) provided with the analysis flow, and (4) term of validity of the data is within a year from the date when starting the measurement.

4. Beryllium and antimony

Depending on the client's requirements, detailed analysis of beryllium, antimony, organochlorinated solvents, n-hexane, benzene, toluene, 1-methyl-2-pyrrolidone, n-propyl bromide, and halogens (Fluorine, chlorine, bromine, etc.) may be performed.

5. Environmentally hazardous substances other than cadmium, lead, mercury, hexavalent chrome, PBBs, and PBDEs

As for all environmentally hazardous substances specified in Attachment 1 other than cadmium, lead, mercury, hexavalent chrome, PBBs, and PBDEs, non-inclusion of them shall be proven on Certificate of non-use of environmentally hazardous substances.

If a measurement is especially required by us due to the request especially made by our customer, an appropriate action shall be taken by you to meet the request.

6. Substances of Very High Concern (SVHC) in REACH Regulations

As for Substances of Very High Concern (SVHC) listed in REACH Regulations, inclusion/non-inclusion of them in parts and/or materials/sub-materials that are subject of the verification shall be investigated and verified by using chemSHERPA issued by JAMP (Joint Article Management Promotion-Consortium).

Since any of our customers may request us to use its own method and format, an appropriate measurement and action shall be taken by you if it is required by us to meet our customer's request.

JAMP (Joint Article Management Promotion-Consortium): <http://www.jamp-info.com/>

7. Other data and/or documents for survey of environmentally hazardous substances

Since we are requested to do the investigation of environmentally hazardous substances by using a customer's original form and/or format issued and specified by any association or organization such as Japan Green Procurement Survey Standardization Initiative (JGPSSI), Japan Automobile Manufacturers Association (JAMA)/Japan Auto Parts Industries Association (JAPIA), or International Material Data System (IMDS), Joint Article Management Promotion-consortium (JAMP) (chemSHERPA), an appropriate measurement and action shall be taken by you if so is required by us.

Japan Green Procurement Survey Standardization Initiative (JGPSSI) :

http://www.db1.co.jp/jeita_eps/green/greenTOP.html

Japan Automobile Manufacturers Association (JAMA): <http://www.jama.or.jp/>

Japan Auto Parts Industries Association (JAPIA): <http://www.japia.or.jp/>

International Material Data System (IMDS):

<http://www.mdssystem.com/magnoliaPublic/ja/public.html>

Joint Article Management Promotion-consortium (chemSHERPA):

<https://chemsherpa.net/chemSHERPA/>

4.2 Deliverables

4.2.1 Deliverables

1. List of purchased parts, materials/sub-materials

Suppliers who manufacture parts or assemble products shall fill “List of purchased parts, materials, and sub-materials” with purchased parts, materials/sub-materials used in your production process for articles to be delivered to us and submit it. Parts, materials/sub-materials described in the list shall be target parts, materials/sub-materials to be validated in 4.1.

2. Certificate of non-use of environmentally hazardous substances

Based on the result proven in 4.1, Certificate of non-use of environmentally hazardous substances shall be submitted by using the format of Attachment 3. The certificate will be used as grounds of your proof of none of environmentally hazardous substances being contained in parts delivered to us or a destination specified by us, or parts, and/or materials/sub-materials of your procurement.

3. Result of the quantitative analysis

The result of cadmium, lead, mercury, and hexavalent chrome, PBBs, PBDEs, and phthalate esters measured in 4.1 shall be submitted. For measurement methods, refer to Table 1 in “3) Quantitative analysis” in paragraph 3. *Terminology* above, and follow instructions defined in each method.

4. SDS data (Former MSDS)

Based on the verification implemented in 4.1 above, SDS (Safety Data Sheet) shall be submitted. SDS data is a sort of instruction manual for handling chemical products (products using chemical substances) that describes substances contained in chemical products, effects on people and the environment, handling precautions, etc. in order to understand properly the nature of chemical products and handle them safely. Although generally it is not revised unless there is any change in descriptions in the SDS data, any revised one shall be submitted to us immediately when it is reviewed once in half a year and if it is revised.

5. Substances of Very High Concern (SVHC) in REACH Regulations

Suppliers who manufacture parts and/or assemble products shall do the investigation for Substances of Very High Concern (SVHC) in REACH Regulations regarding materials used in parts or products and/or purchased parts, materials, and/or sub-materials that are used in manufacturing process and may attach to products. chemSHERPA, the format issued by Joint Article Management Promotion-Consortium (JAMP), shall be used. (Please obtain any of them through the URL posted in “4.1 Certificate of containing none of environmentally hazardous substances”.)

6. Other documents for survey of environmentally hazardous substances

In response to our request, for materials used in parts and/or products; materials, parts, and products used in manufacturing processes; sub-materials having possibility to be contained in products, suppliers who manufacture parts and/or assemble products shall submit the result of investigation by using a customer’s original form and/or format issued and specified by any association or organization such as Japan Green Procurement Survey Standardization Initiative (JGPSSI), Japan Automobile Manufacturers Association (JAMA)/Japan Auto Parts Industries Association (JAPIA), or International Material Data System (IMDS). (Please obtain any of them through the URL posted in “4.1 Certificate of containing none of environmentally hazardous substances”.)

4.2.2 Time to submit

1. New suppliers

Prior to starting actual dealings, suppliers who enters into business relations shall submit documents mentioned in 4.2.1.

2. Existing suppliers

Our Main Control Section checks if you have already submitted documents required in 4.2.1 or not. If you have not yet submitted them, we will make you a request of submission of such documents, so you shall meet our request.

3. Periodically submission

"List of purchased parts, materials, and sub-materials", "Certificate of non-use of environmentally hazardous substances" and "Result of the quantitative analysis" among documents submitted according to Paragraph 4.2.1 will be valid for one year basically. Once documents are submitted, they shall be updated based on the re-verification as per Paragraph 4.1 before the due date.

As for Substances of Very High Concern (SVHC) defined in REACH Regulations, if target substances are added and investigation of such substances are required, we will make you a request of submission of documents accordingly. So investigation shall be done in advance and the documents of the result shall be kept by you.

4. When any change is caused in materials/sub-materials used in the supplier's manufacturing process

If any change is caused in the submitted "List of purchased parts, materials, and sub-materials", "4M Change Application" shall be submitted according to Supplier Quality Control Regulations in order to be acknowledged by us prior to implementing the change.

Since it is required in the course of acknowledgement of the change that none of environmentally hazardous substances is included in materials/sub-materials to be changed, documents required in 4.2.1 based on the re-verification mentioned in 4.1 shall be submitted newly again.

5. When Guideline on Environmentally Hazardous Substances of Connector Products Division, Corporate Electronic Parts Group, KYOCERA Corporation is revised

The standards (Guideline on Environmentally Hazardous Substances of Connector Products Division, Corporate Electronic Parts Group, KYOCERA Corporation) may be revised according to changes in law, social surroundings, and/or requirements made by customers and such. When it is revised, the revised version will be delivered and at the same time requests to fulfill newly derived requirements for applicable product materials and/or materials/sub-materials will be made by us, then please take necessary actions to meet it. If any requirement that is not compliant with the standards is needed to be required, it will be negotiated separately.

4.3 Control in the manufacturing process

4.3.1 Acceptance inspection for raw materials and materials/sub-materials, and retrieving and storing materials

1. Procedures of the acceptance inspection

- At the acceptance inspection for raw materials, it shall be made sure that the names of material shown in the drawing and on the identification card are identical.
In order to assure the compliance with RoHS Directive, ICP data or data attached to materials delivered shall be checked to see if the data satisfy the specifications of RoHS Directive.
- Pass or Fail of the data shall be checked on the ICP data on which the part number, the stamp of approved person, the date of analysis (within the period of validity, one year) are filled.
When it is assured that the raw material is compliant with RoHS, the stamp or label showing "RoHS compliant" shall be put on the material for identification purpose.
- At the acceptance inspection for materials/sub-materials, it shall be made sure that the actual materials/sub-materials are identical with the ones in the "List of materials/sub-materials in use"

that has already been submitted after non-inclusion of environmentally hazardous substances is proven.

- At the acceptance inspection for parts, it shall be made sure that the part number of the actual parts and the one shown on the identification card are identical.
- At the accepting scene, each phase of raw materials shall be located clearly separately by using signs or indications for the location such as “For goods before the inspection” and “For compliant goods”.
- Results of the acceptance inspection shall be shown in a list so that the situation would be comprehensible any time.
- Since an XRF measurement for raw materials, materials, and/or sub-materials may be requested by our customer especially, an appropriate measurement and action shall be taken by you if it is especially required by us to meet such request. For substances to be measured and specifications, refer to “3. terminology”.

2. Actions for nonconforming goods detected in the acceptance inspection

- At the acceptance inspection of raw materials, any of them that is not identical with the ones in the drawings shall be determined as nonconforming goods and be rejected. We, Connector Products Division in Kyocera, shall be notified it at the same time.
- At the acceptance inspection of purchased parts, materials/sub-materials, if any of parts, and/or materials/sub-materials that are not described in the “List of purchased parts, materials/sub-materials” is detected, they shall be rejected or distinguished clearly so that they could not be used in products and/or manufacturing process for products to be delivered to us.
- As a result of an XRF measurement for raw materials, materials, and/or sub-materials conducted due to our customer’s request, if any measured value is larger than the specified values, the materials shall be determined as nonconforming goods and be rejected. We, Connector Products Division in Kyocera, shall be notified it at the same time.

3. Storing and retrieving raw materials and materials/sub-materials

- If a same lot number of raw materials or materials/sub-materials is accepted over days, the date accepted shall be identified on the materials while they are stored by lot number.
- At the acceptance, the date accepted and the lot number shall be kept on record, and also they shall be identified on materials with indication or stamp.
- Materials of which lot number showing an older date of manufacture shall be retrieved first, and the date retrieved and accepted and the lot number shall be kept on record.
- Records mentioned above shall be shown in one form for easy identification of storing and retrieving materials to make sure the FIFO management.
- As for raw materials, quantity accepted and used in processes shall be shown. (Quantity accepted, input in processes, residual quantity and etc.)

4. Storage of raw materials and materials/sub-materials

- Raw materials and materials/sub-materials shall be stored with clear indication showing that it is RoHS compliant. Materials for leaded plating shall be labeled as RoHS noncompliant (leaded) and stored.
- If a small quantity of materials are taken out, be sure to put the indication “RoHS compliant” or “RoHS noncompliant (leaded)” on them as well as the rest of the materials.
Halogen-free materials shall be clearly identified so in storage.
If materials are retrieved in small quantity, the halogen-free indication (HF) shall be shown on remaining materials for sure.
As for controlling other environmentally hazardous substances requested by us especially, thorough identification management shall be done by you in accordance with the instructions.

4.3.2 Manufacturing process

1. Control of the manufacturing process

- Materials/sub-materials for which it was already proven that no environmentally hazardous substance was contained shall only be used in the manufacturing process.
- If materials compliant with the control of environmentally hazardous substances and noncompliant ones are stored in a premise, they shall be clearly separated by location, indication, and etc. so that they would never be mixed in.
- When items other than ones for us are manufactured in the same premise, those of other items shall be located apart and indicated clearly differently from items for us, and they shall never contact with each other. Items for us shall not be contaminated with any of environmentally hazardous substances through materials/sub-materials.
- In each process, the following shall be considered and followed.

Process	Item to be considered	Issue of concern	Controlling
Molding	When molding products for us after material for products other than ours has been used.	Prohibited substance(s) left in the path from the hopper to the die may be contained in products for us.	In the beginning of molding products for us, works shall be discarded until impact of the material previously used for other company's product is eliminated after shifting.
Stamping out	When stamping out by using materials for products other than ours.	By using wrong materials, prohibited substances may be contained in our products.	Materials to be used for our products shall be checked with description on the drawing prior to be used in order to prevent wrong material from being used.
Plating	When putting in anode chips used in a plating process by mistake	By putting in anode chips, prohibited substances may be contained in our products.	Change the shape of anode chips respectively so that the visual identification could be enabled in order to prevent hazardous substances from being contained.
Assembling	Lead-free product is assembled after the leaded products were assembled.	Lead in the leaded product left on the assembly machine may be attached to lead-free product.	When assembly is changed from leaded product to lead-free one, clean parts where lead-free contact may touch to prevent the impact as much as possible.

- To control plating solution in a plating process, cautions and requests for control are shown in "Attachment 5: Control of RoHS-Restricted Substances Contained in the Plating Solution".

2. Actions for nonconformity detected in the manufacturing process

When any nonconformity regarding environmentally hazardous substances is detected in the manufacturing process, the supplier shall perform the procedure in accordance with "Regulations for Supplier's Quality Control (EBQ9)". We, Connector Products Division in Kyocera, will deliver *Regulations for Supplier's Quality Control (EBQ9)* as required by suppliers to whom it has not yet delivered.

4.4 Identification

In addition to that RoHS compliant and noncompliant shall be identified by location and its indication in all processes from raw materials, sub-materials, parts, products through packaged products, raw materials, sub-materials, parts, products shall be shown as RoHS compliant goods by affixing a label or stamping a mark on them in order for more definite identification.

As for those of halogen-free, aside from RoHS compliant and noncompliant ones, in addition to they shall be identified by location and its indication, they shall be shown as halogen-free (HF) goods by affixing a label or stamping a mark on them in order for more definite identification. As for controlling other

environmentally hazardous substances requested by us especially, thorough identification management shall be done by you in accordance with the instructions.

4.5 Shipping inspection

- For products that have completed all operations in the manufacturing process and passed the in-process inspection, perform the final inspection for shipment. Indicate the inspection lot composition and inspection items in the "QC process chart for each product and part" or the inspection procedures. Pay attention to the management of substances with environmental impact, and determine whether or not a prohibited substance is contained as a result of the final inspection based on the results of confirmation that the prohibited substance is not contained in the identification card and operation table.
- Inspection items and specification for RoHS shall be included in the shipping inspection record (Final inspection record), and the determination of its compliance with RoHS Directive shall be entered. If the goods are not compliant with RoHS, "RoHS-noncompliant" shall be indicated.
- Since submission of any analytical data for materials, parts, and/or assemblies may be requested by our customer especially, appropriate measurements and actions shall be taken by you if it is required especially by us to meet such request. For substances to be measured and specifications, refer to "3. terminology".
If measured values do not satisfy our requirements, stop the shipment as non-conforming products, and report it to us, Connector Products Division in Kyocera.

4.6 Keeping records

1. The following shall be kept for 11 years or more as a quality record.
 - 1) Documents submitted in accordance with 4.2.
 - 2) Record of actions for nonconformity detected in the acceptance inspection and/or manufacturing process
 - 3) Other records is requested by us
e.g.) Training record for environmentally hazardous substances control, Record for communication regarding this Guideline on Environmentally Hazardous Substances, Record of qualification done by inspector, Records regarding the plating process control (Attachment 5: Control of RoHS-Restricted Substances Contained in the Plating Solution)
2. Records shall be handled as follows.
 - 1) Records shall be accessed easily when needed through index or something like that.
 - 2) If records are kept in the form of electronic file, back up copy of the file shall be made in case of file damage.

4.7 Others

1. Notification of the responsible person for environment management
The person in charge of management of environment-related substances shall be designated and be notified to our person in charge in Connector Products Division in KC.
2. Communication to your second-tier suppliers
 - (1) If you are a manufacturer:
As for manufacturers from whom you procure parts/materials to fabricate your products to be delivered to us and subcontractor processor to whom you order processing for your product to be delivered to us, you shall instruct them to be involved in the activities to control environmentally hazardous substances according to this guideline and make sure that each of them satisfies all the requirements set forth in it. Please give them required assistance to achieve their compliance.
 - (2) If you are a trading company:
For manufacturers from whom you buy goods for your products to be delivered to us, you shall communicated this guideline and instruct them to be involved in the activities to control

environmentally hazardous substances according to this guideline. Please collect information from such manufactures regarding their compliance to requirements set forth in this guideline, and submit them to us.

5. Where to call about what mentioned in this document;

Guideline on Environmentally Hazardous Substances of Connector Products Division, Corporate Electronic Parts Group, KYOCERA Corporation.

Please ask the following person any questions about what mentioned in this guideline.

Contact: Yoshiharu Fujii in Engineering Administration Unit,
Design Engineering Department, Connector Products Division
Phone number: (+81) 45-611-1029
E-mail: yoshiharu.fujii.cy@kyocera.jp

Note

Priority shall be given to the expressions written in Japanese when any unclearness arises in this document.

Revision record

Publisher	Connector Products Division	Doc. Name	Guideline on Environmentally Hazardous Substances	Doc. No.	EKCP-446810-T01	
Responsible section	Section in charge of environment					
Rev.	Date	Description	Approval	Check	Preparation	
1	Aug. 1, 2005	Initial release	Hata		Amano	
2	July 20, 2006	Full-fledged revision due to "Control Procedures for Environmental Hazardous Substances" revised on July 1st, 2006.	Matsuoka		Amano	
3	Sep. 20, 2006	Added the limitation of hazardous substances in Item 3-1.	Matsuoka		Amano	
4	Apr. 20, 2007	Added cautions and management method for molding and assembly processes to Item 4.3.2.	Matsuoka		Amano	
5	July 1, 2007	Attached Notification of acknowledgement as Attachment 6.	Matsuoka		Amano	
6	Aug. 1, 2008	Changed the document name from Guidelines for KYOCERA ELCO Green Procurement to KYOCERA ELCO Green Procurement Standards. Added "shall be identified and indicated." in 2) Material/Sub-materials of 3. Terminology and 1.Management of production process of 4.3.2 Production process.	Matsuoka		Amano	
7	Sept. 1, 2009	Changed values specified for materials prohibited by RoHS regulations	Matsuoka		Amano	
8	Dec. 15, 2008	Changed "Substances prohibited being used in production processes" to "Substances to be controlled" in d) of 3. Terminology. Changed the classification for the specified values to inorganic and organic substances.	Matsuoka		Amano	
9	Feb. 20, 2009	Changed the specified values for prohibited substances in 3. Terminology.	Matsuoka		Amano	
10	Mar. 10, 2009	Added quantitative analysis in 3. Terminology. Added "Chlorinated cobalt" to substances of which inclusion is prohibited, and etc.	Matsuoka		Amano	
11	Nov.12, 2009	Changed values specified for prohibited substances in 3. Terminology.	Matsuoka		Amano	
12	Feb.1, 2010	Added "G-44" to "G-50" to substances of which inclusion is prohibited. Reviewed the due dates of abolishment for substances to be abolished.	Matsuoka	Amano	Sato	

13	June.1, 2010	<p>Added "G-32 (Ozone depleting substances (excluding HCFC)) are not used in the production process." in 3.</p> <p>Added "G-51" to "G-54" to substances of which inclusion is prohibited.</p> <p>"G-5" and "G-6" were deleted because they are included in "G-51".</p> <p>Attached "Azo dye and pigment list" as Attachment 1-3.</p> <p>Attached "Ozone depleting substances (Substances targeted in Montreal Protocol) list" as Attachment 1-4.</p> <p>Attached "Specific organic tin compound list" as Attachment 1-5.</p> <p>Attached "DBT and DOT (organostannic) compound list" as Attachment 1-6.</p> <p>Added control standard values for substances regulated as Halogen-free substances in 3.</p>	Matsuoka	Amano	Sato
14	April 1, 2012	Changed the company name to KYOCERA Connector Products Corporation..	Matsuoka	Sakuma	Sato
15	July 1, 2012	<p>"3. Terminology"</p> <p>1) Added declarable substances in Environmentally hazardous substances, added exemptions regarding lead and specification values for XRF measurement and reviewed definition of halogen-free.</p> <p>2) Added molding materials, stamping materials, wires, reclaimed materials, recycled materials and paintings in "Material/Sub-materials".</p> <p>3) Added recommended analysis laboratory and analysis method for antimony and phthalate esters in Quantitative analysis.</p> <p>"4.1 Certificate of containing none of environmentally hazardous substances".</p> <p>Added requirements for REACH SVHC and other requirements for other survey data and information.</p> <p>"4.2 Deliberables"</p> <p>Added an item requiring survey of REACH SVHC and other surveys for environmentally hazardous substances.</p> <p>"4.3.1 in 4.3 Control in the manufacturing process"</p> <p>1. Added requirements for XRF measurements.</p> <p>2. Added requirements for XRF measurements in handling nonconformance detected in the acceptance inspection.</p> <p>3. Corrected partially</p> <p>"4.4 Identifying management"</p> <p>Added requirements for identification control on halogen-free articles.</p> <p>"4.5 Shipping inspection"</p> <p>Added requirements for XRF measurement.</p> <p>"4.6 Records retention"</p> <p>Changed the retention time of quality records to 11 years.</p>	Matsuoka	Sakuma	Sato

16	June 25, 2014	<p>Revision due to reviewing the document architecture</p> <ul style="list-style-type: none"> - Changed the document number according to the change of the document number of the higher document <p>"3. Terminology"</p> <p>1) List of environmentally hazardous substances</p> <p>Changed the specified values of six prohibited substances stipulated in RoHS Directive</p> <p>Changed the description for XRF measurement</p> <p>Added Denmark's restriction on four phthalate esters</p> <p>"4.1 Certificate of containing none of environmentally hazardous substances"</p> <p>Partly corrected the description for submitting the analysis data</p> <p>"4.3.2 Manufacturing process"</p> <p>Added the stamping out & plating processes in "1. Control of the manufacturing process"</p> <p>"5 Where to call"</p> <p>Changed the person in charge of contact</p>	Matsuoka	Sakuma	Sato
17	June 23, 2015	<p>"3. Terminology"</p> <p>Added the specified value of beryllium</p> <p>Added the beryllium measuring method to "3) Precise analysis"</p> <p>Added "Attachment 6: List of applicable major laws & regulations"</p>	Matsuoka	Sakuma	Sato
18	Dec. 8, 2015	<p>"3. Terminology"</p> <p>Added the specified value of antimony trioxide</p> <p>Changed the Z-1 and Z-2 substances in "Substances to be abolished" to reportable substances.</p>	Matsuoka	Sakuma	Sato
19	Apr. 21, 2016	<p>"3. Terminology"</p> <p>Specified the value of mercury and Hexavalent chrome among RoHS six restricted substances</p> <p>"4.1 Certificate of containing none of environmentally hazardous substances"</p> <p>Added statements regarding MSDS data</p> <p>"4.2 Documents to be submitted"</p> <p>Added statements regarding MSDS data</p>	Matsuoka	Sawada	Sato
20	Apr. 17, 2018	<p>"3. Terminology"</p> <p>Change the value of PBB and PBDE among RoHS 6 restricted substances</p> <p>Added a sentence about phthalate esters due to RoHS2</p> <p>"4.1 Certificate of containing none of environmentally hazardous substances"</p> <p>Added "3. Four phthalate esters (DEHP, DIBP, DBP, BBP)"</p> <p>Added "4. Beryllium, antimony"</p>	Matsuoka	Kitagawa	Sato

21	April 1, 2017	Revised to the new title "Guideline on Environmentally Hazardous Substances" along with merger of our company to Kyocera Corporation and change of the organization name (New name: Connector Products Division, Corporate Electronic Parts Group, KYOCERA Corporation)	Kawamoto	Kawamura	Sato
22	Aug. 25, 2017	Partly changed "Kyocera Environmental Charter (Excerpt)" along with integration into Kyocera Corporation, added e) through h) in "Terminology". Changed MSDS to SDS and added chemSHERPA as environmental evidence. "4. When any change is caused in materials/sub-materials used in the supplier's manufacturing process " in "4.2.2 Time to Submit" Changed "Notification of change in production condition" to "4M change application". Changed "2. Management of second-tier suppliers" in "4.7 Others" to "2. Communication to second-tier suppliers", and added the description accordingly.	Kawamoto	Kawamura	Sakuma
23	Apr. 20, 2018	"3. Terminology" Added substances, pre-treatments, and methods to detect to "(3) Precise analysis". Added a sentence "*: Upon request of some of our customers, suppliers of cleaning agents, oily detergents, and/or release agents should analyze Benzene, Chlorinated Organic Solvents, n-Hexane, N-Methylpyrrolidone (NMP), Toluene.."	Takao	Kawamura	Sato
24	Nov.20, 2018	"3. Terminology" i) Threshold value Changed the values for PBBs and PBDEs. Added substance, pre-treatment, and method to detect for "n-Propyl bromide" to "(3) Precise analysis". Changed the survey formats for SVHCs from AIS and MSDSplus to chemSHERPA of "6. Substances of Very High Concern (SVHC) in REACH Regulations " in "4.1 Certificate of containing none of environmentally hazardous substances" and of "5. Substances of Very High Concern (SVHC) in REACH Regulations" in "4.2 Deliverables". "5. Where to call about what mentioned in this document;" Changed the name and the E-mail address of the person in charge. "Attachment 1: List of Environmentally Hazardous Substances " -Added substances of G-203 to G-223 to substances not to be contained. - Added substances of Z-15 to Z-21 to substance to be abolished. -Added substances of the 17th through 19th update of REACH Candidate List.	Takao	Kawamura	Isibashi

			Approval	Check		Preparation
25	Feb.3,2022	<p>Changed the environmental charter (excerpt) to an environmental safety policy Deleted AIS, MSDSplus, JGPSSI, changed JAMA sheet to JAPIA unified sheet "3. Terminology" Changed to G-16 ozone depleting substance (including HCFC), I) Threshold: Added control value of less than 300ppm for phthalates. "Attachment 1: List of Environmentally Hazardous Substances " -Added substances of G-224 to G-232 to substances not to be contained. "(G-15) 60-90-3 ⇒ 60-09-3" error correction. -Added substances of the 20th through 25th update of REACH Candidate List.</p>	Shibata	Yamane	Sato	Sakuma
26	Sep.13,2022	<p>3.Definition of terms a) Addition of prohibited substances to the list of prohibited substances i) Add less than 10 ppm for each PBDE substance alone to the threshold "Attachment 1: List of Environmentally Hazardous Substances " • Added G-223, G-230, G-234~238, K-95, R-175~176</p>	Shibata	Yamane	Sato	Sakuma
27	Jly.1,2024	<p>Kyocera Group Environment and Safety Policy Update 3.Definitions of terms 1) List of substances of concern < Attachment1> • Added G 239~268, K-96, R 177~179 • Addition of substances prohibited for use in processes h)Addition of surface treatment agents to examples of part names l)Change the boundary value of the threshold concentration Addition of absorption photometry to hexavalent chromium measurement 3)Additional detection limits for precision analysis 4.Addition of halogen substances to analysis by customer request</p>	Nakazuru	Sadatoku	Sato	Fujii
28	Jan.26,2026	<p>3.Definitions of terms 1) List of substances of concern < Attachment 1> • Added G 270~275 • Added K 97~102 • Renumbered R • Process prohibition ※ added to 18 substances • Addition of REACH SVHC 32~34 • Add some example CAS numbers 4.5 Shipping Inspection Additional confirmation of non-inclusion of prohibited substances in final inspection Change inquiry department name</p>	Nakazuru	Sadatoku	Sato	Fujii