

IBIDEN Group Green Procurement Guidelines

(Version 6)



October 1, 2017

***IBIDEN* IBIDEN Co.,Ltd.**

[Table of Contents]

1. Introduction	P3
2. IBIDEN Group's Basic Policy for the Environment	P4
3. Objective of the Guideline	P5
4. Definitions of Terms	P5
5. Applicable Procurement Items	P6
6. Chemical Substances under Ividen Group's Environmental Control	P6
7. Requests to Suppliers	P7
8. Documents We Request Our Suppliers to Submit	P10
1) Survey Sheet for Suppliers	[Form 1]
2) Certificate of Chemical Substances Management In the products & materials	[Form 2]
3) chemSHERPA-CI, chemSHERPA-AI	
4) SDS (Safety Data Sheet)	
5) Parameter Sheet	
6) Analysis Report of Concentration Level	
9. When Changes Are Made to Descriptions	P12

[1] Introduction

Ibiden Group has established corporate philosophy “IBIDEN Way”. We, all the IBIDEN Group employees, will work together for our philosophy; we respect humanity and nature, create new values together with customers and contribute to constant social advancement. We also work for environmental conservation in all of our business process, which is one of our shared values.

We would like to contribute to “Resource-cycling society”. We will promote our Green Procurement for all the goods, including raw materials, parts, and office supplies in cooperation with our suppliers, and work for overall evaluation of environmental burden we make.

The purpose of Green Procurement is to reduce environmental burden from the products we manufacture by procuring products, parts, and materials that have less environmental burden from our suppliers. Activities throughout our supply chain are indispensable to prohibit use of hazardous substances restricted by laws, and to promote our business considering environmental burden and risk reduction. This cannot be achieved without cooperation from our suppliers.

We have hereby prepared “Green Procurement Guidelines” in order to clarify our environmental procurement policy, and to procure materials with less environmental burden. We would greatly appreciate the understanding and cooperation from our suppliers in respect of our Green Procurement Policy for creating sustainable society with less environmental burden.

October 1, 2017

Ibiden Co., Ltd.

Global Purchasing Division

Environment & Safety Division

[2] IBIDEN Group's Basic Policy for the Environment

Basic Policy

“We conduct the environmental burden reduction activity with all concerned people under IBIDEN way. We aim “Harmony with Nature” by reducing the bad effect on global environment generated in our business activities, and fulfill the role as enduring company.”

Environment Policy

1. We contribute to protecting the global environment by minimizing the environmental burden in every process of our business activities. We especially value water and its benefits to the Earth.
2. We continuously promote positive and effective use of clean energy by developing and improving eco-technology that saves energy and resources.
3. We comply with environmental rules and regulations of domestic and overseas countries. We set our own standards and advance our environmental management capabilities.
4. We encourage all employees to share the purposes and goals of environmental protection and to devote themselves to environmental protection activities. We accomplish this by utilizing an Environment Management System.
5. We publicize this environmental policy by distributing a Policy Carrying Card to promote awareness of environmental protection and to inspire each employee to act voluntarily.
6. We make this policy public and we make it available any time when requested.

We also make this policy available on our website: <http://www.ibiden.co.jp/>



[3] Objective of the Guideline

The international trend today in the control of chemical substances is shifting more to the Precautionary Principle in assessing the risks of chemical substances, and control by supply chains of chemical substances contained in their products. Thus, it is becoming increasingly important for manufacturers to voluntarily control chemical substances in their products, and to timely provide proper information on such chemical substances.

Under such circumstances, Ibiden Group is promoting Green Procurement with the aim of lowering the environmental burden generated in our entire supply chain by properly controlling chemical substances and voluntarily reducing those having a high risk of causing harmful effects, thereby contributing to the protection of the global environment.

This Guideline has been prepared to clarify the Ibiden Group's basic idea concerning Green Procurement and requests to our suppliers.

We would greatly appreciate to our suppliers for their understanding the purpose of this Guideline, and their cooperation in (with) Ibiden Group's Green Procurement activities.

[4] Definitions of Terms

The definitions of the terms used in this Guideline are as follows:

Term	Definition
Green Procurement	A system of procurement of parts and materials with reduced environmental burden from suppliers engaged in environmental conservation in order to reduce environmental burden associated with manufacturing activities of IBIDEN and entire supply chain
Chemical substances	Chemical elements or compounds
Homogeneous materials	Materials that cannot be mechanically broken down into different materials. <ul style="list-style-type: none">• Examples of homogeneous materials include individual types of plastics, ceramics, glass(es), metal(s), plate(s), paper, cardboard(s), resin(s), and coating(s),• Examples of mechanical break-downs include unscrewing, cutting, breaking, grinding, and polishing.
Intentionally added	Substance deliberately utilized in the formulation of a material or component where the continued presence of the substance is desired in the final product to provide a specific characteristic, appearance or quality
Contain	(1) Substances are intentionally added; or (2) From the information provided by raw material manufacturer, it is known that particular substances (including impurities) are actually contained.

[5] Scope of IBIDEN Green Procurement Guidelines

The IBIDEN Green Procurement Guidelines apply to chemical substances, components, products, materials supplied to IBIDEN for products and the outsourced products as listed in the table below. This guidelines applies to the suppliers, business partners, who deliver their products, parts or materials to IBIDEN.

The procured products which are not included in the list (e.g. equipment, tools, and office supplies are not applicable, however, it should be noted that Green Procurement shall be applied if IBIDEN consider it necessary based on the IBIDEN's Standards. In such a case, IBIDEN may request the suppliers to submit the documents in accordance with Green Procurement Guidelines.

Item	Definition
Device, parts	Electrical device or parts mounted in Ibiden's products. (Chip capacitor, chip resister, pins, screws, etc)
Direct materials	Materials used in the production process and included in Ibiden's products or have the possibility of being mixed into Ibiden's product as impurities (Copper clad laminate, raw materials for plating, solder resist, SiC, graphite, etc)
Indirect materials	Materials used in our production processes, but not included in Ibiden's product. (Detergents, chemical solutions, dry film, etc)
Packaging materials	Materials used for packaging Ibiden's products for shipping (Cardboards, aluminium packaging, tapes, trays, desiccant, labels, etc)

[6] Chemical Substances Regulated by IBIDEN Group's Environmental Control

IBIDEN Group classify "chemical substances regulated by the IBIDEN Procurement Guidelines" in two separate categories, prohibited substances and controlled substances as follows:

(1) Prohibited Substances (Annex Table 1)

There chemical substances are prohibited or regulated for inclusion in supplied products. Under regulations inside and outside Japan, these chemical substances are basically prohibited for use in products. If chemical substances listed in separate Table 1 are intentionally included or more than the Maximum Allowable volume, IBIDEN Group will not purchase such products.

(Exemption: Use of substances listed in Annex Table 3 or specified by IBIDEN or Specification)

2) Controlled Substances (Annex Table 2)

These substances whose actual use must be known, and appropriate management is required to reduce the use. If chemical substances listed in Table 2 are intentionally included or more than the control volume included, actual volume that is use must be known. IBIDEN Group will proactively reduce the amount of use and replace with substitutes to reduce an environmental burden

Note that even if the substance is not listed in the Prohibited Substances (Table 1) or Controlled Substances (Table 2), IBIDEN shall prioritize the regulation of suppliers and customer requirements.

[7] Requests to our Suppliers

With the support of our suppliers, IBIDEN will reinforce its endeavors to provide environmentally-conscious products. The below are the requests to our suppliers for the corporation in green procurement investigation. Please complete the documents (for details, see “8 Document We Request to Our Suppliers” and submit to IBIDEN.

1) Requests to our suppliers (Companies)

Establishment of Environmental Management System

We request our suppliers to establish and implement a system to continuously make improvements to reduce environmental burden. Specifically, we ask our suppliers to carry out the following activities:

- Environment Policy to be established by Top Management and reviewed regularly.
- Establish an organization to take control of environmental, and clarifies the responsibility and authority of each department.
- Establish a system to update latest environment-related regulations and comply with them.
- Clarify your business activities that may affect the environment, and provide measures to the ones with impacts to reduce their environmental burden.
- Establish a system to monitor the progress of their environmental burden reduction activities and to evaluate the results.
- Conduct an internal audit on environmental conservation efforts.
- Prepare the procedure for emergency such as process abnormalities or natural disasters, and conduct regular drills and revise procedure based on the result of the drills.
- Conduct training to all the employees for pollution control and environmental conservation.

Furthermore, we recommend our suppliers to acquire certification of the environmental management system by a third party (ISO 14001, etc.) to implement the above activities more effectively.

(2) Implementation of environmental conservation activities

We request our suppliers to implement following environmental conservation activities:

- Comply with all laws and regulations regarding pollution, such as air pollution, water contamination, noises, vibrations, and wastes, and also comply with company standards. If there is any non-compliance issue, correct immediately.
- Perform 3R activities (Reduce, Reuse, and Recycle)
- Perform activities for prevention of global warming
- Positively disclose environmental conservation progress to outsiders.
- Implement Green Procurement

(3) Establishment of a system for controlling chemical substances contained in products

It is necessary for all the suppliers involved in supply chain to control chemical substances in the products to enable information regarding chemical substances in the products to be communicated throughout entire supply chain. We request our suppliers to establish and implement a system for controlling chemical substances contained in the products they deliver to us. For details, please see the activities below.

(The following content is based on “Guidelines for the management of chemical substances in products” prepared by Joint Article Management Promotion-consortium (JAMP).)

- Establish the company’s own policy concerning control of chemical substances contained in products and have all the employees be familiar with the policy.
- Clarify the standards for controlling chemical substances contained in products, and the ranges to which the control standards apply (divisions/departments / business activities / process/ products, etc.).
- Set targets regarding control (ing) of chemical substances contained in products, and manage the progress of relevant activities.
- The results of activities must be reviewed by top managements and reflect in the targets of following year.
- Establish an organization for controlling chemical substances contained in products, and clarify responsibilities and authorities.
- Obtain information regarding chemical substances contained in purchased materials at the designing and developing stage, and check whether the chemical substances contained in (the developing) products being developed comply with the control

standards.

- When selecting suppliers, check their implementation status regarding control of chemical substances contained in the products.
- When receiving purchased materials, periodically check them whether they meet your chemical substance control standards.
- When handling prohibited substances or controlled substances restricted by Ibiden in a process/at a subcontractor, provide measures to prevent those substances from being misused or mixed from their production process of the products delivered to Ibiden.
- When a part or all of the production is outsourced to external contractors, check their control status of chemical substances contained in the products appropriately.
- There must be a check item regarding chemical substances in the products, and check sheet must be checked that all the check items are checked before shipment.
- Ensure traceability of products.
- Establish a rule for changes in chemical substances in products, as well as a system to ensure provision of information to the customers before actual changes have made.
- Establish a rule for producing non-conformance products. (Immediate response, investigation of the cause, recurrence prevention, customers reports, etc.)
- Perform education and training to all the employees regarding the control of chemical substances contained in products.
- Rules regarding chemical substances contained in products are documented. Establish a system of storing records, and to provide information on chemical substances contained in products upon requests from customers.
- By confirming management status of chemical substances in products with internal audit, provide corrective actions if there is any findings.

Please refer to JAMP “Guidelines for the management of chemical substances in products” before implementation of the above items.

2) Request on the delivered products

- (1) Certificate of No-Use of Prohibited Chemical Substances and confirmation of contents of controlled substances.

We request our suppliers to certify that the substances prohibited by Ibiden (Annex Table 1) are not intentionally included in materials delivered to Ibiden (except for a few exceptions). If any amount is contained, please certify that concentration of the substances does NOT exceed the limit. Also we request our suppliers to certify that you confirm the contents of

controlled substances (Annex Table 2).

- (2) Positive disclosure of information on chemical substances contained in products
For the chemical substances contained in the products delivered to IBIDEN, please positively disclose the composition information including names, content rates, amounts, etc. of such substances to IBIDEN. Especially in case any substances defined as prohibited/controlled substances by IBIDEN are contained in your products, you must file a report to IBIDEN regardless of whether such information is designated as company confidentiality or not, regardless of concentration degree (even if the concentration of chemical contained is lower than the maximum allowable concentration / controlled value).
- (3) Indication of compliance of IBIDEN Green Procurement Guideline
Please indicate in the test report of the products delivered to IBIDEN that the chemical substances contained in the products comply with IBIDEN Green Procurement Guideline.
Example: “Chemical substance in this product is complied with IBIDEN Green Procurement Guideline”

[8] Documents We Request Our Suppliers to Submit

We request our suppliers to submit necessary documents according to procurement items in the following table by category. It should be noted that we may ask for additional submission of documents including analysis reports due to our customer requirements.

Investigation format for chemical substances included in products

Documents to be submitted	Survey Sheet for Suppliers (Form1)	Certificate of Chemical Substances Mgt in the products & materials (Form2)	chemSHERPA-CI or chemSHERPA-AI	SDS	Warranty of Non-Inclusion	Close Concentration Analysis
Classification of products to be procured						
Device, parts	○	○	○	—	△	△
Direct material			○	○	△	△
Indirect materials			○	○	△	△
Packaging material			○	—	—	△
Frequency of submission	(1) New business transaction / When requested by IBIDEN (existing suppliers) (2) When changes are made to descriptions	(1) New product / When requested by IBIDEN (law amended) (2) When changes are made to descriptions	(1) New product / When requested by IBIDEN (law amended) (2) When changes are made to descriptions	(1) New product (2) When changes are made to descriptions	(1) New product (2) When changes are made to descriptions	(1) New product (2) When changes are made to descriptions

○ (Circle): Documents need to be submitted, △ (Triangle): Documents to be submitted when requested by IBIDEN

1) Survey Sheet for Suppliers (Form 1)

We request our all new suppliers, as well as our existing suppliers where applicable, to complete the Survey Sheet and provide the information on the status of environmental management system, environmental activities and the current status of the management system on chemical substances in products. Please read the instructions carefully before completing the Survey Sheet.

Please note that IBIDEN will follow-up the suppliers with evaluation result less than 80 points to verify that suppliers are continuously striving for improvement, and may audit to verify the EMS implementation status, initiatives for reducing environmental burden, and the management system on chemical substances in products.

2) Certificate of Chemical Substances Management In the products & materials (Form 2)

“Certificate of Chemical Substances Management In the products & materials” is the format to be used to certify the management of chemical substances in product and that prohibited chemical substances that the concentration levels of chemical substances do not exceed legal limits and chemical substances in the products are known.

IBIDEN Procurement Policy prohibit the use of prohibited substances in principle. (Except for special use)

3) chemSHERPA-CI, chemSHERPA-AI

“chemSHERPA-CI “ or “chemSHERPA-AI” is required for new product. “chemSHERPA-CI” and “chemSHERPA-AI” are managed by chemSHERPA to facilitate information exchange in a supply chain of chemical substances in products. (chemSHERPA-CI is for chemical product and chemSHERPA-AI is for article).

Please visit <https://chemsherpa.net/chemSHERPA/english/> and download chemSHERPA-CI and chemSHERPA-AI.

4) Safety Data Sheet (SDS)

Safety Data Sheet (SDS) is required for the new product.

5) Parameter Sheet

Parameter Sheet is required for new product. (only for products purchased in Japan).

6) Concentration Analysis Report

When requested by IBIDEN, please submit “Concentration Analysis Report” to provide the results of precise analysis of the concentration level. (Please submit a Analysis Report provided by ISO/IEC 17025 Certified Body)

[9] When Changes Are Made to Descriptions

When there are any changes made in the documents submitted by suppliers due to changes in the specifications of the delivered products, please note that IBIDEN personnel in charge must be informed of the changes. The relevant documents (Form 1, Form 2, SDS and chemSHERPA-CI, chemSHERPA-AI, and Concentration Analysis Report) are required again for verification to determine if changes meet the IBIDEN's standard.

For any inquiries about this Guideline, please contact us at
Environment & Safety Division [TEL: +81-584-89-0802](tel:+81-584-89-0802)
E-mail: green_procurement@ibiden.com
Global Purchasing Division: [TEL: +81-584-81-7951](tel:+81-584-81-7951)