



Think Automation and beyond...

**IDEC Group Green Procurement
Guidelines
Version 2**

January 2020

IDEC CORPORATION

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Introduction

Recognizing coexistence with the planet to be a shared wish of humanity and with regard to the relationship between business management and the environment the IDEC Group aims to realize sustainable growth by acting based on assigning top priority to environmental protection in all of its business activities.

As part of these efforts, these IDEC Group Green Procurement Guidelines have been established based on environmental laws and regulations in Japan and around the world, and the Group carries out environmental protection activities intended to lessen its environmental impact.

The understanding and cooperation of suppliers is essential to advancing green procurement activities to protect the environment. Suppliers' cooperation would be highly appreciated as we advance environmental protection activities as part of our corporate social responsibilities, in partnership with our suppliers.

Environmental Policy

Philosophy

Recognizing the goal of a harmonious existence with the earth that we all share, the IDEC Group makes environmental safety and quality a top priority in all aspects of our business while pursuing sustainable business growth.

Policy

1. We shall further strengthen the concept of "SAVE ALL," and shall develop our organization and management structure for promoting and practicing activities to conserve the global environment throughout our business activities.
2. We shall monitor the impact of our business activities on the environment and set environmental objectives within an economically and technologically possible range, hold reviews, and implement continuous improvements for the conservation of the global environment, including the prevention of pollution.
3. We shall obey all applicable laws, ordinances, agreements related to environmental aspects, and shall establish voluntary standards to achieve even further environmental conservation.
4. Our planning and development departments shall engage in conserving the global environment by developing new environmentally friendly products and improving our existing products.

Our production department shall strive to develop and improve environmentally friendly manufacturing technology, shall reduce and monitor production waste, and shall engage in conservation of the global environment.

Our sales and logistics departments shall engage in conservation of the global environment through reducing the environmental burden involved with all aspects of distribution.

5. We shall strive to save resources and energy, promote recycling, reduce waste in all of our business activities, and engage in conservation of the global environment.
6. We shall construct an environmental management system and implement internal audits, and strive to maintain and continually improve the system.
7. We shall hold environmental education and training, inform all employees of the Environment Policy, and raise their awareness.
8. We will actively participate in and contribute to social activities related to environmental conservation.

1. About these IDEC Group Green Procurement Guidelines

1.1. Purpose

The IDEC Group aims to advance materials procurement, manufacturing, and sales activities with minimal environmental impact. These Guidelines express our basic concepts and specific requirements intended to proactively act to protect the earth's environment together with our suppliers, in order to fulfill our responsibility to society to steadily decrease our environmental impact through activities, including thorough compliance with laws and regulations and thorough chemical substances management, efficient use of resources, and protection of biodiversity, throughout the entire product life cycle.

1.2. Scope

These Guidelines apply to activities related to all materials delivered to the IDEC Group for use in products and product packaging and packing materials.

Definition of materials: Raw materials, parts, products, subsidiary materials, labels, packaging materials, packing materials, user's manuals, OEM/ODM products

2. About chemical substances contained in materials delivered

2.1. IDEC Group restricted chemicals

The IDEC Group has identified IDEC Group restricted chemicals. It manages chemical substances contained in products in two categories: prohibited chemicals and controlled chemicals.

Depending on circumstances in the destinations of product delivery or sale, some chemicals may require separate handling. Information on such handling will be provided on a case-by-case basis as necessary.

2.1.1. Prohibited chemicals (Annex 1)

In principle, all materials delivered to the IDEC Group must be free from content of the prohibited chemicals identified in Annex 1 to these Guidelines in excess of their threshold values. In principle, use of these prohibited chemicals is prohibited under laws and regulations of Japan and other countries.

Suppliers are required to prove that the materials they deliver do not use any prohibited chemicals and to submit documentation, such as the IDEC Group Certification of Non-use of Prohibited Chemicals.

2.1.2. Controlled chemicals (Annex 2)

The controlled chemicals identified in Annex 2 to these Guidelines are chemical substances that, while not restricted at this time, are ones for which regulators are considering prohibiting use or ones thought to have environmental impact and for which the IDEC Group ascertains information on whether or not they are contained in products and, if applicable, their concentrations.

2.2. Development of a system for control of restricted chemicals

Suppliers are requested to develop control systems that make it possible to ascertain the latest information on subjects, such as whether or not prohibited chemicals (Annex 1) and controlled chemicals (Annex 2) are contained in materials delivered to the IDEC Group and, if applicable, their concentrations, and to keep the data in such systems up to date.

2.3. Information disclosure and communication

If asked to provide information on parts and materials used in materials delivered to the IDEC Group (i.e., types of materials included, whether or not any IDEC Group restricted chemicals are included, and, if so, their concentrations), suppliers are requested to cooperate in responding swiftly using formats, such as chemSHERPA-AI/CI.

3. Requests to suppliers

Suppliers are requested to understand and support the IDEC Group's environmental protection activities and to cooperate in proactively implementing the following items.

3.1. Development of environmental management systems

To promote environmental protection activities throughout the entire supply chain, it is recommended that suppliers develop environmental management systems through attaining and renewing third-party certifications, such as ISO 14001. Even suppliers that

have not attained such certification are requested to develop systematic environmental management systems that include legal and regulatory compliance and environmental protection initiatives.

We can provide support for suppliers thinking about newly attaining ISO 14001 or other third-party certification or developing new environmental management systems. Please feel free to consult with us concerning such initiatives. As necessary, the IDEC Group's activities may include auditing of suppliers' environmental protection initiatives and control of chemical substances included in products, through on-site audits or questionnaires.

3.2. Conforming to laws and regulations in business activities

Suppliers are requested to prevent air, soil, and water pollution through strict compliance with the requirements of environmental regulations and applicable laws in the countries and regions in which their companies and business sites are located and proper handling and monitoring of restricted chemicals.

In Japan, suppliers are requested to comply with the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., the Industrial Safety and Health Act, the Air Pollution Control Act, the Water Pollution Prevention Act, and other applicable laws and regulations, in both the procurement and manufacturing stages.

3.3. Lessening of impact on water resources

In light of the significant possibility of a massive reduction in water resources available for use due to growth in demand for such resources resulting from population growth and economic development, as well as variations in precipitation, the need to balance use with residence, the impact of climate change on water resources, and water pollution, the impact of business activities on water resources needs to be reduced. Suppliers are requested to strive to reduce their water use, improve the quality of drain water discharged, and protect water resources.

3.4. Waste reduction

In addition to proper disposal of waste at supplier facilities in accordance with laws and regulations, suppliers are requested to promote recycling and to strive to reduce waste.

3.5. Effective utilization of resources

The IDEC Group is promoting the supply of eco-friendly products reflecting consideration for resource saving and energy saving. Suppliers are requested to proactively propose the initiatives described under (1)-(9) below with regard to effective utilization of resources and promotion of recycling.

- (1) Not using, or reducing use of, raw materials at risk of depletion
- (2) Appropriate use of renewable resources
- (3) Utilization of closed-loop recycling
- (4) Use of materials with consideration for recycling after product use
- (5) Extending product life spans
- (6) Simplification of packing and packaging materials in distribution and reuse and recycling of packing materials
- (7) Reducing products' weights and sizes
- (8) Reducing electricity consumed and on standby
- (9) Simplification of disassembly for recycling

3.6. Control and reduction of CO₂ and other greenhouse-gas emissions

To combat global warming, the IDEC Group strives to reduce emissions of CO₂ and other greenhouse gases. Suppliers are requested to implement proactive initiatives to reduce emissions of greenhouse gases throughout the product life cycle from procurement of raw materials used in products and parts delivered to disposal as waste after product use.

Greenhouse gases: carbon dioxide, methane, dinitrogen monoxide (nitrous oxide),
ozone-depleting substances, fluorine greenhouse gases

3.7. Initiatives to protect biodiversity

Consideration for living creatures and ecosystems is essential to environmental protection. Suppliers are requested to join us in consideration for protecting nature and biodiversity. In cases when building new facilities or expanding existing ones or changing waste storage locations or waste discharged, please implement an environmental impact assessment and try to minimize the impact on nature.

4. Terminology

4.1. Laws and regulations

(1) EU RoHS Directive

The EU RoHS Directive (2011/65/EU) (RoHS2 Directive) is an EU directive prohibiting use of harmful substances (cadmium, lead, mercury, hexavalent chromium, polybrominated biphenyl [PBB], and polybrominated diphenyl ethers [PBDE]) in electrical and electronic equipment (EEE).

While the timing varies by product category, the substances of bis(2-ethylhexyl) phthalate (DEHP, DOP), benzyl butyl phthalate (BBP), dibutyl phthalate (DBP), and diisobutyl phthalate (DIBP) have been added as well. The maximum permissible concentration is 0.01 wt% for cadmium and 0.1 wt% for the other substances.

(2) REACH Regulations

The REACH Regulations were enacted by the EU in 2007 to control chemical substances. The following duties must be complied with when exporting articles to the EU.

Duty of restriction of use: Products containing the restricted substances identified in Annex XVII may be exported to the EU only in conformity to the restrictive conditions indicated.

Duty of communicating information: When exporting to the EU articles containing more than 0.1% by weight of substances of very high concern (SVHC), information to that effect must be communicated.

(3) Chinese RoHS

Restricts six specified harmful substances (toxic chemical substances and elements): cadmium, lead, mercury, hexavalent chromium, polybrominated biphenyl (PBB), and polybrominated diphenyl ethers (PBDE). While the threshold values it specifies are the same as those of the EU RoHS Directive, it does not include any exempted uses. Requires products to be labeled with their environment-friendly use periods.

(4) Minamata Convention on Mercury and Act to Prevent the Mercurial Pollution of the Environment

Prohibits manufacture of specific products using mercury and use of mercury and related materials in manufacturing processes. Requires labeling of products using components that contain mercury as using mercury or similar materials.

(5) Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc.

A law intended to prevent environmental pollution by chemical substances that could be harmful to human health or be detrimental to the habitation or growth of plants and animals.

Includes restrictions on importation, manufacture, and use of chemical substances depending on their properties (i.e., decomposition, accumulation, toxicity, and environmental residuals).

(6) Industrial Safety and Health Act

A law intended to protect the health and safety of workers as well as encouraging the formation of comfortable working environments.

(7) Air Pollution Control Act

Establishes emissions standards by type of pollutant and type and size of facility for atmospheric pollutants emitted or dispersed from plants and other business sites.

(8) Water Pollution Prevention Act

Requires compliance with drain water standards related to drain water from plants and other business sites and establishes regulations, such as restrictions on groundwater penetration.

4.2. Other terms

(1) Non-use

Clear indication that a chemical substance is not included in more than the threshold value in homogenous materials, whether as an intentional additive or an unintentional impurity.

(2) Homogeneous materials

Materials with a homogenous composition that cannot be broken down further mechanically.

(3) Threshold value

The threshold value for a prohibited chemical is the regulatory value of the concentration of such chemical, derived as the content of that chemical substance divided by the mass of the homogeneous material.

(4) Impurities

Substances included in natural materials that cannot be removed through refining or subjects arising through reactions in manufacturing processes that cannot be removed technically.

(5) Exempted uses

The EU RoHS Directive permits exceptional use of content in excess of threshold values, for a temporary period, for uses for which substitution is technically unfeasible. However, these are subject to periodic review.

(6) Closed-loop recycling

Recycling remnants and scrap into the same products with similar levels of quality.

(7) Subsidiary materials

These include materials, such as solder, grease, adhesives, ink, and residual detergents or chemicals remaining in delivered materials.

(8) Labels, packaging materials, packing materials

These include, respectively, base materials and film, coating materials, and ink and cushioning materials.

(9) Joint Article Management Promotion Consortium (JAMP)

A consortium established to promote activities across multiple industries based on the recognition that the creation and promotion of systems for smooth disclosure and communication in the supply chain of information on chemicals and other substances contained in articles (products and parts) is essential to improving industrial competitive strengths. This organization manages and updates the chemSHERPA systems.

(10) chemSHERPA-AI/CI

A scheme for communicating throughout the entire supply chain information on chemical substances that may be used in products, developed under the leadership of the Ministry of Economy, Trade and Industry of Japan to integrate the information-communication schemes used by individual organizations. Tools downloadable from the chemSHERPA website include chemSHERPA-AI, used to support preparation of data on articles and chemSHERPA-CI, used to support preparation of data on chemical products.

Annex 1. Prohibited chemicals

No.	Chemical substances	Threshold values	Subjects of restrictions	Main related laws, regulations, conventions
1	Cadmium and compounds thereof	Less than 100 ppm	All uses (other than uses exempted from the RoHS Directive) Note: Batteries are subject to the EU Batteries Directive	EU RoHS Directive Chinese RoHS
2	Lead and compounds thereof	Less than 1000 ppm	All uses (other than uses exempted from the RoHS Directive) Note: Batteries are subject to the EU Batteries Directive	EU RoHS Directive Chinese RoHS
3	Mercury and compounds thereof	Less than 1000 ppm	All uses (other than uses exempted from the RoHS Directive) Note: Batteries are subject to the EU Batteries Directive	EU RoHS Directive Chinese RoHS Minamata Convention on Mercury
4	Hexavalent chromium compounds	Less than 1000 ppm	All uses (other than uses exempted from the RoHS Directive) Note: Batteries are subject to the EU Batteries Directive	EU RoHS Directive Chinese RoHS
1~4	Cadmium, lead, hexavalent chromium, and mercury	Intentional use prohibited and less than 100 ppm in total	Packaging materials for IDEC products	EU packaging directive US Specified States TIP : Specified states in the US : Toxics in Packaging Regulation
5	Polybrominated biphenyls (PBB)	Less than 1000 ppm	All uses	EU RoHS Directive Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. Chinese RoHS EU POPs Regulations Annex I

No.	Chemical substances	Threshold values	Subjects of restrictions	Main related laws, regulations, conventions
6	Polybrominated diphenyl ethers (PBDE)	Less than 1000 ppm	All uses	EU RoHS Directive Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. Chinese RoHS EU POPs Regulations Annex I
7	Bis(2-Ethylhexyl) phthalate (DEHP)	Less than 1000 ppm	All uses	EU RoHS Directive EU REACH Regulations, Annex XIV
8	Dibutyl phthalate (DBP)	Less than 1000 ppm	All uses	EU RoHS Directive EU REACH Regulations, Annex XIV
9	Benzyl butyl phthalate (BBP)	Less than 1000 ppm	All uses	EU RoHS Directive EU REACH Regulations, Annex XIV
10	Diisobutyl phthalate (DIBP)	Less than 1000 ppm	All uses	EU RoHS Directive EU REACH Regulations, Annex XIV
11	Polychlorinated biphenyls (PCBs)	Intentional use prohibited and less than 50 ppm	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. POPs Convention EU POPs Regulations Annex I
12	Polychlorinated terphenyls (PCTs)	Less than 50 ppm	All uses	EU REACH Regulations, Annex XVII
13	Asbestos	Intentional use prohibited and less than 1000 ppm	All uses	EU REACH Regulations, Annex XVII
14	Tri-substituted organostannic compounds	Less than 1000 ppm (concentration contained in tin)	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc., EU REACH Regulations, Annex XVII
15	Tributyltin oxide (TBTO)	Less than 1000 ppm (concentration contained in tin)	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. EU REACH Regulations, Annex XVII EU POPs Regulations Annex I

No.	Chemical substances	Threshold values	Subjects of restrictions	Main related laws, regulations, conventions
16	Short-Chain Chlorinated Paraffin (SCCPs) (C10 - 13)	Intentional use prohibited	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. POPs Convention EU POPs Regulations Annex I
17	Azocolorants and azodyes that form specified amine compounds	Less than 30 mg/kg(30 ppm) as specified amine compounds	Textile and leather parts that may come into direct contact with human skin or oral cavities for a long period of time	EU REACH Regulations, Annex XVII
18	Polychlorinated naphthalenes (CL \geq 1)	Intentional use prohibited	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. POPs Convention EU POPs Regulations Annex I
19	Ozone-depleting substances	Intentional use prohibited	All uses and use in producing process	Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures Montreal Protocol on Substances that Deplete the Ozone Layer
20	Dibenzothiophene (DBT) compounds	Less than 1000 ppm(concentration contained in tin)	All uses	EU REACH Regulations, Annex XVII
21	Diocetyl tin (DOT) compounds	Less than 1000 ppm(concentration contained in tin)	Textiles coming into contact with the skin Two-ingredient greenhouse-effect mold kit	EU REACH Regulations, Annex XVII
22	Formaldehyde	Aerial concentration less than 0.1 ppm	Fiberboard and wood parts	Germany Chemical prohibition ordinance US TSCA
23	Radioactive substances	Intentional use prohibited	All uses	Act on Prevention of Radiation Hazards due to Radioisotopes, etc.

No.	Chemical substances	Threshold values	Subjects of restrictions	Main related laws, regulations, conventions
24	Perfluorooctanoic Sulfonate (PFOS) and its chlorides	Intentional use prohibited and less than 1000 ppm	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. POPs Convention EU POPs Regulations Annex I
25	Perfluorooctanoic acid (PFOA), its chlorides and PFOA related substances	PFOA and its chlorides: less than 0.025 ppm PFOA-related substances: less than 5 ppm in total	All uses	EU REACH Regulations, Annex XVII
26	2-(2H-1,2,3-benzotriazole-2-yl)-4,6-dii-tert-butylphenol	Intentional use prohibited	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc.
27	Dimethyl fumarate	Less than 0.1 ppm	All uses	EU REACH Regulations, Annex XVII
28	Polycyclic aromatic hydrocarbons (PAH)	Less than 1 ppm	Rubber or plastic parts that may come into contact with human skin or oral cavities directly for a long period of time or repeated contact for a short period of time	EU REACH Regulations, Annex XVII
29	Hexabromocyclododecane (HBCD)	Intentional use prohibited and 100 ppm	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. POPs Convention EU POPs Regulations Annex I
30	Hexachlorobenzene (HCB)	Intentional use prohibited	All uses	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc. POPs Convention EU POPs Regulations Annex I

Annex 2. Controlled chemicals

No.	Subject	Notes
1	IEC 62474	Other than prohibited chemicals under Annex 1
2	Candidate substances for permission under EU REACH regulations (SVHCs)	Other than prohibited chemicals under Annex 1
3	Restricted substances under EU REACH Regulations, Annex XVII	Other than prohibited chemicals under Annex 1
4	chemSHERPA substances subject to control	Other than prohibited chemicals under Annex 1

Annex 3. Applicable laws and regulations

No.	Common name	Official name
1	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc.	Act on the Evaluation of Chemical Substances and Regulation of their Manufacture, etc.
3	Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures	Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures
3	Act on Prevention of Radiation Hazards due to Radioisotopes, etc.	Act on Prevention of Radiation Hazards due to Radioisotopes, etc.
4	Act to Prevent the Mercurial Pollution of the Environment	Act to Prevent the Mercurial Pollution of the Environment
5	EU RoHS Directive	Directive 2011/65/EU
6	EU REACH Regulation Annex X VII	Regulation(EC) No 1907/2006 Annex X VII
7	EU REACH Regulation Annex X IV	Regulation(EC) No 1907/2006 Annex X IV
8	Chinese RoHS	Administrative Measure on the Control of Pollution Caused by Electronic Information Products
9	POPs Convention	Stockholm Convention on Persistent Organic Pollutants
10	EU POPs Regulation Annex I	Regulation (EC) No 850/2004 Annex I
11	EU packaging directive	Directive 94/62/EC

No.	Common name	Official name
12	Germany Chemical prohibition ordinance	ChemVerbotsV/Germany Chemical prohibition ordinance
13	US TSCA	US Toxic substances Control Act (TSCA)
14	US Specified States TIP : Specified states in the US : Toxics in Packaging Regulation	US Specified States TIP : Specified states in the US : Toxics in Packaging Regulation
15	EU Battery Directive	Directive 2006/66/EC , 2013/56/EU
16	Minamata Convention on Mercury	The Minamata Convention on Mercury

Revision Record

Established in October 2018 Version 1

Revised in January 2020 Version 2

Revisions from Version 1 to Version 2

Revised parts	Revised contents
2.3. Information disclosure and communication	Deleted JAMP-AIS/MSDSplus from information disclosure format.
Annex 1. Prohibited chemicals	<p>No.11 Polychlorinated biphenyls (PCBs): Added less than 50 ppm to threshold value.</p> <p>No.18 Polychlorinated naphthalenes: Changed to (CL>/=1) from (CL>/=2)</p> <p>No.19 Ozone-depleting substances: Added "use in producing process" to subjects of restrictions.</p> <p>No.25 Perfluorooctanoic acid (PFOA), its chlorides and PFOA related substances: Changed threshold value. PFOA and its chlorides: less than 0.025 ppm, PFOA-related substances: less than 5 ppm in total</p> <p>Deleted No.30 Reaction products of benzamine, N-phenyl, styrene, and 2,4,4-Trimethyl-pentene</p>
Annex 2. Controlled chemicals	No.4 Changed to "chemSHERPA substances subject to control" from "JAMP substances subject to control".

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