KENWOOD
Listen to the Future

Green Procurement Guideline

Fifth Edition

March 2008

Kenwood Corporation

Table of Contents

Introduction

Special thanks for your continuous support for Kenwood Corporation.

Environmental conservation activities, including prevention of global warming, protection of ozone layers, prevention of emission of hazardous substances, and recycling, are the most important theme in the context of the coexistence of mankind with the environment. We, the Kenwood Group, will be implementing activities to enable us to permanently conserve the global environment and accomplish a sustainable society, and will be working toward being a "Green Company" that lives in harmonization with the global environment.

We have been ever committing to environment preservation activities and now, in order to offer products that are environmentally conscious more than ever, we need your sincere understanding and cooperation. Kenwood Corporation will actively continue to promote "Green Procurement" activities: when determining suppliers of material, components, and products, Kenwood gives priority to those who implement environmentally conscious activities.

With your understanding and cooperation for this Green Procurement, Kenwood Corporation will work toward being an excellent company also in the context of environment conservation, as a "Green company" that contributes to society that conserves global environment.

We are sincerely looking forward to working with you in this activity.

Tomohiko Yoshimura, Executive Officer
Manager of Procurement Division
Kenwood Corporation

ENVIRONMENTAL PHILOSOPHY

True to the Kenwood Group's corporate vision of "Reaching out to discover, inspire and enhance the enjoyment of life," we strive to expand our presence around the world while fulfilling our responsibility to the community by working toward continuous maintenance and improvement of our precious global environment and contributing to sustainable social development.

ENVIRONMENTAL POLICIES

The Kenwood Group fully recognized the environmental impact caused by the products and services of its three core business activities of car electronics, communications equipment and home electronics, and it undertakes the following measures to conserve the global environment and resources and make products environmentally-friendly.

1. In an effort to minimize greenhouse gases we raise the efficiency of our business operations and activities pursue energy saving by creating green products that are energy efficient and conserve resources throughout their lifecycle from planning and development to production, distribution, use , and disposal.
2. We will pursue conservation and recycling of resources in our products designs and business activities to preserve limited global resources and contribute to the realization of a recycling-oriented society.
3. We realize the importance of preventing environmental pollution and will enter into partnerships with our suppliers and contractors in a continuous effort to reduce environmental pollutants.
4. We will observe environment-related laws and regulations as well as other applicable requirements that we agree to comply with.
   We will communicate this environmental policy to all our employees and the general public.

1. Objective

The Kenwood Group understands that global environment conservation is an important task for mankind in this century and contributes to creation of society with an environmental-friendly material cycle.

For this objective, Kenwood launches "Green Procurement", in which Kenwood preferably purchases material, components, and products that comply with environmental laws of relevant countries and provide less environmental loads from suppliers that implement environmentally conscious activities.

2. Scope

This guideline applies to all the materials, components, and products that the Kenwood Group purchases to produce its products, including OEM products and ODM products.

* The term "Kenwood Group" refers to Kenwood Corporation and its all domestic and overseas subsidiary companies.

3. About the Green Procurement Criteria

Green Procurement is evaluated under the following criteria:

3.1 Criteria Regarding "the System of the Company" to Address Environmental Issues

Establishment of an environmental management system

(1)The supplier should document an environmental policy and principle, and communicate them to its employees.

(2)The supplier should establish an organization for environmental management.

(3)The supplier should provide its employees with education and communication on environment conservation.

(4)The supplier should observe relevant environmental laws and perform self-management to conform to them.

(5)The supplier should deploy resource-saving design for products it offers and packages for the products.

(6)The supplier should actively implement activities, such as life cycle assessment, to reduce waste.

Therefore, as a guideline for a company that promotes environment preservation, it is highly recommended to establish a system based on the environmental management system standard ISO14001 and obtain an authoritative certification of such a system.

It is considered that companies that run a voluntary environment management system through any third-party certification under standards, such as Eco Action 21 and Eco-Stage, that are in line with ISO14001 also fulfill the guideline.

3.2 Criteria for Materials, Components, and Products the Kenwood Group Purchases

(1) Substances contained in materials, components, and products that the supplier offers should conform to the criteria defined in the "25 Control Substances in Kenwood" and that supplier should be able to provide information that reasonably shows the conformance.

Each supplier should also communicate this guideline to its suppliers and its Secondary suppliers and have them conform to this guideline.

(2) Any packaging materials of the products and other materials for components supplied with the products shipped from the supplier should not contain any substances which are banned in the "25 Control Substances in Kenwood."

In order to reduce environmental load, the supplier should make necessary steps to stop or reduce the use of control substances, including those contained in tools used in manufacturing processes by considering possibility of being transferred to products.

3.3 Definition

- Control Substance

Control substances are defined based on the JGPSSI JIG and include 16 Kenwood Level A Substances and 9 Kenwood Level B Substances.

JGPSSI: Japan Green Procurement Survey Standardization Initiative

JIG: Joint Industry Guide

Kenwood Level A Substances:

When using any of these substances for products or components, the usage should conform to relevant laws and always be reported. The Kenwood Level A Substances category consists of the JGPSSI JIG Level A Substances plus formaldehyde. These are banned substances.

Kenwood Level B Substances:

The Kenwood Level B Substances include 9 substances and are the same as the JGPSSI JIG Level B Substances. Though using these substances requires no conformance to any laws except for some substances, reporting based on threshold values is required for promotion of reduction. These are restricted substances.

- For the definition of terms, such as "intentionally added", "threshold level", and "homogeneous material", please refer to JIG101A.

3.4 Information and Data to be Submitted

- Each supplier should provide environment-related information, as specified in 4.1 thru 4.3 in Section 4 below, regarding materials, components, and products that the supplier delivers to the Kenwood Corporation. Except for the Declaration of No-Use of Banned Substances, please provide all the required information in the Excel format, rather than a printed document or PDF format.

  Visit our Web site to download necessary forms to fill up to provide necessary information.
- For materials, components, and products we use for products for automobile manufacturers, we will separately request environment-related information as specified in 4.4 in Section 4.

  Visit our Web site to download the forms, and complete and provide them.

  * For various laws to which you should conform, refer to Appendix: "Relevant Laws/Restrictions."

4. Environment-Related Data to be Submitted

4.1 Queries about Green Consciousness

At our request, please complete and submit annually the "Queries about Green Consciousness" by evaluating your activities.

As a surveillance to verify continual improvement, each supplier should periodically submit "Queries about Green Consciousness."

- Form: Reference "Queries about Green Consciousness"

4.2 Declaration of No-Use of Banned Substances

In order to declare that no substances specified in the "25 Control Substances in Kenwood" are used or, if used, the content any of of such substances is below its threshold value, each supplier should provide a "Declaration of No-Use of Banned Substances" at Kenwood's request.

Whenever you noticed that you need to revise already submitted information through new knowledge, you should submit revised one.

- Form: Reference "Declaration of No-Use of Banned Substances"

4.3 Substance Information with the JGPSSI Survey Response Format or Kenwood-Specified Ingredients of Materials

Regarding all the materials and relevant substances used for your products, complete and provide the JGPSSI Survey Response Format (preferred), or Ingredients of Materials we have specified, at our request.

JGPSSI URL http://210.254.215.73/jeita_eps/green

For materials each supplier purchases, obtain necessary information from material manufacturers or the supplier should investigate the materials on its own.

Whenever you noticed that you need to revise already submitted information through new knowledge, you should submit revised one.

In the Ingredients of Materials, in principle, you should disclose information of all the known material ingredients. Some ingredients, however, can be categorized into "Others" provided that their entire content does not exceed 10 percent in weight (5 percent for pigments/dyes).

- Form: Reference "Ingredients of Materials Ver. 5"

4.4 Environmental Survey Request for OEM Components (Environment Survey of Products for Automobile-Related Manufacturer)

For components used for OEM products we supply to automobile manufacturers, you need to compile environmental survey information that our clients require, in addition to the information described above.

We request that information with "Environmental Survey Request for OEM Components."

Visit our Web site to download forms that you can use and complete.

Note: Only for components used for OEM products, use the JAMA/JAPIA Standard Material Datasheet (preferred) or Ingredients of Materials. The JGPSSI Survey Response Format is not acceptable.

With an Environmental Survey Request for OEM Components, we request the documents listed in (1) to (4) below:

(1) JAMA/JAPIA Standard Material Datasheet

A sheet for material ingredient survey that JAMA (Japan Automobile Manufacturers Association) and JAPIA (Japan Auto Parts Industries Association) standardized for collecting information on materials and substances contained in automobile components.

Necessary forms are available at the JAPIA Web site with the following URL:

http://www.japia.or.jp/work/2007/09/datasheet.html

When you are requested to submit information using the JAMA/JAPIA Standard Material Datasheet and you have no password needed to complete the forms, please contact us.

(2) Ingredients of Materials (Ver. 5.0)

Always complete and submit the form described in (1) above. If that form is impractical, use this form.

Though, in principle, you need to disclose all the ingredients, you are allowed to describe substances, other than those listed in the GADSL, in the "Others" category, provided that their entire content is 10% or less (for pigments/dyes, 5% or less).

Note: For components used for OEM products, the JGPSSI Survey Response Format cannot be used because required information is essentially different.

(3) GADSL (Global Automotive Declarable Substance List) Contents Report

Describe whether substances the GADSL specifies are used and, if any declarable substance is used, describe the portions and reasons of the use.

If a banned substance is used below its threshold level, describe the content level.

If you use banned substances that correspond to exemption, describe those substances.

Necessary forms are available at our Web site.

For more information about the GADSL, visit http://gadsl.org.

(4) Evidence (Analysis data with an analyzer such as an ICP, which proves substance contents)

Be sure to describe the date of analysis, name and signature or seal of analyzing body, analyzed portions, analysis method, and analysis results.

Provide evidence when we specifically request it with an "Environmental Survey Request for OEM Components."

Note that, for heavy metals, analysis results with X-ray fluorescence analysis (EDX) are not acceptable.

5. Practice of Evaluation

We evaluate each supplier from a viewpoint of green procurement for the following items:

Submitted environmental documents, including "Queries about Green Consciousness," "Declaration of No-Use of Banned Substances," "Ingredients of Materials," and "Environmental Survey Request for OEM Components" are to be comprehensively evaluated.

As needed, audits or analysis of actual products will be conducted and their results should be taken into consideration during the evaluation.

In order to verify that products actually delivered to Kenwood comply with the requirements, those products may be analyzed for the ingredients inside or outside Kenwood.

The evaluation will be made based on information provided and assessment obtained for one year. The evaluation will be used to help choose suppliers and components for the next year.

Decision

We rate each supplier based on the points marked in the "Queries about Green Consciousness" as described below, and will purchase materials, components, and products preferably from A-rated suppliers.

Points marked in the "Queries about Green Consciousness"		
Rating	Total points	Decision
A	220 - 250	First priority in purchase is assigned.
B	85 - 215	Improvement required, Support provided
C	80 or less	Termination of purchase will be considered.

* The points of the "Declaration of No-Use of Banned Substances" and "Ingredient of Materials" should be calculated as the following:

Queue time before information provided	Point
14 days or less	100
One month or less	50
More than one month	20
Not provided	0

The conventional criteria for choosing suppliers have included criteria of appropriate quality (designated as "Q"), appropriate prices ("C"), and stable delivery ("D"). In addition to those criteria, the criteria of environment conservation ("E") should be taken into account when choosing suppliers of given products. Suppliers who comprehensively address environmental issues will be chosen with higher priorities.

Even if the supplier is a trading company or functions as a trading company in handling relevant products, it is also evaluated with the steps described here.

* For the criteria for quality and reliability of products, refer to the separate "Quality Assurance Manual for Vendors (QAMV)."

6. Handling of Information

Provided information will be handled as internal information.

The "No-Use of Banned Substances," "Ingredients of Materials," and/or documents provided based on "Environmental Survey Request for OEM Components" may be used as certain proof to be provided to Kenwood clients.

7. Contacts for the "Green Procurement Guideline"

Should you have any comments or questions about this guideline, contact the following:

Tel: +81 42 646 5232
Fax: +81 42 646 7801
Procurement Strategic and Management Dept. Procurement Div.

Appendix 1: 25 Control Substances in Kenwood

Item	JIG Substance Class. No. * 7	Substance Group (Japanese)	Substance Group (English)	Kenwood Level A Substance	Kenwood Level B Substance
Metal and Metal Compound	A05***	カドミウム/カドミウム化合物	Cadmium and Cadmium Compounds	●※6	
	A07***	六価クロム化合物	Hexavalent Chromium Compounds	●※6	
	A09***	鉛/鉛化合物	Lead and Lead Compounds	●※6	
	A10***	水銀/水銀化合物	Mercury and Mercury Compounds	●※6	
	A17***	トリブチルスズ=オキシド（TBTO）	Tributyl Tin Oxide (TBTO)	●	
	A18***	一部のトリブチルスズ類（TBT 類）、トリフェニルスズ類（TPT 類）	Tributyl Tins & Triphenyl Tins	●	
	A01***	アンチモン/アンチモン化合物	Antimony and Antimony Compounds		○
	A02***	ヒ素/ヒ素化合物	Arsenic and Arsenic Compounds		○
	A03***	ベリリウム/ベリリウム化合物	Beryllium and Beryllium Compounds		○
	A04***	ビスマス/ビスマス化合物	Bismuth and Bismuth Compounds		○
	A11***	ニッケル	Nickel and Nickel Compounds		○※1
	A13***	セレン/セレン化合物	Selenium and Selenium Compounds		○
Halogenated Organic Compound	B02***	ポリ臭化ビフェニル類（PBB類）	Polybrominated Biphenyls (PBBs)	●	
	B03***	ポリ臭化ジフェニルエーテル類（PBDE類）	Polybrominated Diphenyl Ethers(PBDEs)	●	
	B05***	ポリ塩化ビフェニル類およびポリ塩化ターフェニル類（PCB類、PCT類）	Polychlorinated Biphenyls (PCBs、PCTs)	●	
	B06***	ポリ塩化ナフタレン（塩素原子数が3 以上）	Polychloronapthalenes (Cl =>3)	●	
	B09***	短鎖型塩化パラフィン　(炭素鎖長：10～13 の短鎖型塩素化パラフィンを対象とする。)	Short Chain Chlorinated Paraffins	●	
	B08***	臭素系難燃剤	Brominated Flame Retardants		○※2
	B07***	ポリ塩化ビニル（PVC）	Vinyl Chloride Polymer (PVC)		○
Others	C01***	アスベスト類	Asbestos	●	
	C02***	一部のアゾ染料･顔料	Azo Colorants	●※3	
	C04***	オゾン層破壊物質	Ozone Depleting Substances	●	
	C06***	放射性物質	Radioactive Substances	●	
	C05***	一部のフタル酸エステル類	Phthalates		○※4
		ホルムアルデヒド	Formaldehyde	●※5	

*1: Report any use of nickel when it falls under specific regulated applications where it is likely that skin has direct contact with nickel for a long time, such as an enclosure designed for a portable electronic device. Though the list categorizes nickel as the Level B Substances, be sure to report when the product contains nickel.

*2: Brominated flame retardant other than PBBs and PBDEs.

*3: Azo dyes/pigments, only those used for textile or leather products, that form specific amines.
Specific amines are amine compounds that the 19th amendment directive to 76/769/EEC specifies.

*4: Applies only to the following five substances which are covered by the EU risk assessment. Refer to "Details of 25 Control Substances in Kenwood."
- Dibutyl phthalate - Phthalic acid (2-ethylhexyl) - Diisononyl phthalate - Diisodecyl phthalate - Butyl benzyl phthalate

*5: Use for wooden products sold in Europe is restricted. Refer to "Relevant Laws/Restrictions."

*6: Applied to substances for which the RoHS Directive specifies exempted use.

*7: Describe JGPSSI Substance Classification numbers only when no CAS numbers are available.

Appendix 2: Relevant Laws/Regulations (National regulations, requirements and examples of use, threshold lev

The following table summarizes laws and regulations applicable for the Level A Substances specified in the JGPSSI JIG levels. It also outlines possible examples of use and threshold levels for Levels A and B Substances likely used in the EEE industry.

Though no Level B Substances will be banned or regulated, disclosure of any information about the contents will be required in some cases where they are used for or used in electric/electronic products. Therefore, the general report threshold level is set to 1,000 ppm, based on the mass of each category of inorganic substance units (total mass contained) or organic compounds that the subject product/component contains divided by the total mass of that product/component. Please report for any Level B Substance, in the same way as Level A Substances, if you know it is contained even when the content is below its threshold le

Level A Substance Group

Substances	Legal and Regulatory Information	Anticipated Possible Use	Threshold (Reporting Level)
Asbestos	76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (83/478/EEC; 85/610/EEC; 87/217/EEC; 91/659/EEC; 99/77/EEC). United States: Toxic Substances Control Act (restricts new uses); Switzerland Ordinance on the reduction of risks linked to chemical products (ORRChim)	Brake lining pad, insulator, filler, abrasive, insulator, filler, pigment, paint, talc, adiabatic material	Any content must be reported.
Azo dyes /Pigments	76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (2002/61/EC; 2003/03/EEC).	Pigment, dyes, colorants	1. Intentionally added 2. Any content greater than 30 ppm (0.003%) by weight in finished textile or leather articles
Cadmium /Cadmium Compounds	76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (91/338/EEC, 91/157/EEC, Battery Directive 93/86/EEC); 2000/53/EC (EU/ELV Directive); 2002/95/EC (EU/RoHS Directive and its amendments); 94/62/EC (Packaging Directive); USA: Regulations for heavy metals in packaging (17 states); California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; China Management Measures on EIP Pollution Control; Revised law for Promotion of Effective Utilization of Resources (J-Moss)	Pigment, paint, ink, physical contact, plating, anti-corrosion treatment, dye, paint drying agent, surface treatment, chromate treatment, paint adhesion enhancement, anti-rust, stabilizer, plating material, pigment for resins, fluorescent, electrode, solder material, contact, zinc plating, PVC stabilizer, battery	1. Intentionally added 2. Any content greater than 100 ppm (0.01%) by weight of homogeneous material.
Hexavalent Chromium/Hexavalent Chromium Compounds	2002/95/EC (EU RoHS Directive and its amendments), 2000/53/EC (EU/ELV Directive); California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources(J-Moss); 94/62EEC (Packaging Directive); USA: Regulations for heavy metals in packaging (17 states); China Management Measures on EIP Pollution Control	Pigment, paint, ink, catalyst, plating, anti-corrosion surface treatment, dye, paint drying agent, surface treatment, chromate treatment, paints adhesion enhancement, anti-rust	1. Intentionally added 2. Any content greater than 1,000 ppm (0.1%) by weight of homogeneous material.
Lead /Lead Compounds	76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (86/677/EEC, 91/157/EEC European Battery Directive, 93/86/EEC); 2000/53/EC (EU/ELV Directive), 2002/95/EC (EU/RoHS Directive and its amendments); 94/62/EC (Packaging Directive); USA: Regulations for heavy metals in packaging (17 states); California Proposition 65 Settlement; China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources (J-Moss)	Rubber hardener, pigment, paint, lubricant, plastic stabilizer, battery material, free-machining alloy, optical materials, X-ray shielding in CRT glass, electrical solder material, mechanical solder material, curing agent, vulcanizing agent, enhanced dielectric material, resin stabilizer, plating material, alloy component, additive for resin	1. Intentionally added 2. Any content greater than 1,000 ppm (0.1%) by weight in homogeneous material or for surface contact layer of cables/cords (thermoset/ thermoplastic coating) content greater than 300 ppm (0.03%) by weight
Mercury /Mercury Compounds	76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (86/677/EEC, 91/157/EEC, 98/101/EEC; 2002/95/EC (EU/RoHS Directive and its amendments); Connecticut: C.G.S., Chapter 446m, Section 224-612-625, Mercury Reduction and Education. Rhode Island: Chapter 23-24.9, Mercury Reduction and Education Act. Vermont: Title 10, Chapter 164, Comprehensive Mercury Management ; China Management Measures on EIP Pollution Control; California Electronic Waste Recycling Act SB 20, amended by SB 50 and AB 575; Revised law for Promotion of Effective Utilization of Resources (J-Moss); European Battery Directive (98/101/EEC), 2000/53/EC (EU/ELV Directive), 94/62/EC (Packaging Directive); USA: Regulations for heavy metals in packaging (17 states); Regulation for mercury containing products in New England (States of Vermont, New Hampshire, Maryland, and Maine)	Fluorescent bulb, contact point material, pigment, anti-corrosion, switches, high-efficiency phosphor, antibacterial treatment	1. Intentionally added 2. Any content greater than 1,000 ppm (0.1%) by weight of homogeneous material.

Substances	Legal and Regulatory Information	Anticipated Possible Use	Threshold (Reporting Level)
Ozone Depleting Substances	Law Concerning the Protection of the Ozone Layer through the Control of Specified Substances and others (Japanese law), Montreal Protocol, 1990 revision of Article 611 of the Clean Air Act (US law); Regulation (EC) No. 2037/2000 on substances that deplete the ozone layer	Refrigerant, foaming agent, extinguishant, solvent cleaner	Any content must be reported.
Polybrominated Biphenyls (PBBs)	2002/95/EC (EU/RoHS Directive and its amendments); Canada SOR/2003-99, Prohibition of Certain Toxic Substances Regulation 2003; China Management Measures on EIP Pollution Control; 76/769/EC Marketing and Use of Dangerous Substances as amended by 83/264/EEC; Revised law for Promotion of Effective Utilization of Resources(J-Moss)	Flame retardant	1. Intentionally added 2. Any content greater than 1,000 ppm (0.1%) by weight of homogeneous material.
Polybrominated Diphenylethers (PBDEs)	2002/95/EC (EU/RoHS Directive and its amendments); China Management Measures on EIP Pollution Control; 76/769/EEC, Marketing and Use of Dangerous Substances and amendments: (2003/11/EEC for Penta BDE, Octa BDE); US Law (Hawaii, Maine for penta BDE and Octa BDE); Revised law for Promotion of Effective Utilization of Resources (J-Moss)	Flame retardant	1. Intentionally added 2. Any content greater than 1,000 ppm (0.1%) by weight of homogeneous material.
Polychlorinated Biphenyls and Terphenyls (PCBs, PCTs)	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law); 76/769/EEC, Marketing and Use of Dangerous Substances.	Insulation oil, lubricant oil, electrica insulation medium, solvent, electrolytic solution, plasticizers, flame retardants, coatings for electrical wire and cable, dielectric sealants	Intentionally added
Polychlorinated Naphthalenes (three or more chlorine atoms)	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law)	Lubricant, paint, stabilizer for resin (for enhancement of electric characteristics, flame resistance, and water resistance), electric insulation material, flame retardant	Intentionally added
Radioactive Substances	U.S. Nuclear Regulatory Commission Title10 CFR Part 20 (Annex C); Laws for the Regulation of Nuclear Source Material, Nuclear Fuel Material, and Reactors, 1986 (Japanese law)	Optical properties (thorium), measuring devices, gauges, detector	Intentionally added
Certain Shortchain Chlorinated Paraffins (C10 – C13)	Norway Regulations relating to restrictions on the use of chemicals and other products hazardous to health and the environment (Product regulations – updated November 2006); EU Marketing and Use Directive (76/769/EEC +2002/45/EC)	Plasticizer for PVC, flame retardant	1. Intentionally added 2. Any content greater than 1,000 ppm (0.1%) by weight .
Certain Tributyl Tin (TBT) and Triphenyl Tin (TPT) compounds	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 2 chemical substances: Japanese law)	Stabilizer, antioxidant, antibacterial and antifungal agents, antifoulant, antiseptic, anti-fungal agent, paint, pigment, antistaining	Intentionally added
Tributyl Tin Oxide (TBTO)	The Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances (Class 1 chemical substances: Japanese law)	Antiseptic, antifungal agent, paint, pigment, antistaining, refrigerant, foaming agent, extinguishant, solvent cleane	Intentionally added
Formaldehyde	(1) Germany: Chemical goods prohibition rule (2) Denmark: Formalin regulation	(1) Woodwork and furniture that emit formaldehyde (2) All woodwork, such as loudspeakers, racks, and pianos, that use wood components assembled using formalin adhesives	Refer to the following

*1 Chamber method (EN717-1:2004): Aerial density of 0.1 ppm (0.124 mg/m3) or less, measured in an airtight test chamber with a volume of 12 m3, 1 m3, or 0.0225 m3

*2 Perforator method (EN120):

- per 100 g of particle board with no surface treatment (average value over six months)
- 7.0 mg or less per 100 g of fiber board with no surface treatment (average value over six months)
- per 100 g of particle board or fiber board with no surface treatment (average value over six months)

Level B Materials/Substances

Substances	Legal and Regulatory Information	Examples of Use	Threshold (Reporting Level)
Antimony /Antimony Compounds	Not applicable Level B Materials/Substances	Pigment, paint, catalyst, lead-free solder, stabilizer, n-type dopant, flame retardant, polymerization catalyst	1000ppm
Arsenic /Arsenic Compounds	Not applicable Level B Materials/Substances	Pigment, paint, dye, antifoamer for glass, III-V group semiconductor substrate (GaAs), flame retardant	1000ppm
Beryllium /Beryllium Compounds	Not applicable Level B Materials/Substances	Ceramics, metal alloy, copper-beryllium alloy, catalyst, precipitation hardening alloy, copper-berylliu alloy for springs, solder	1000ppm
Bismuth/ Bismuth Compounds	Not applicable Level B Materials/Substances	Lead-free solder, solder	1000ppm
All Brominated Flame Retardants except PBBs and PBDEs	Not applicable Level B Materials/Substances	Flame retardant, package molding sealing, plasticizer for PVC	1000ppm
Nickel (only for specific applications)	76/769/EEC, Marketing and Use of Dangerous Substances and Amendments (94/27/EC) Level B Materials/Substances	Stainless, plating, earphones or headphones as an example of direct contact with skin for a long time	DIN EN1811: During the testing, flaked nickel should not exceed 0.5 ug/cm2 in weight.
Certain phthalates	Not applicable Level B Materials/Substances	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	1000ppm
Selenium /Selenium Compounds	Not applicable Level B Materials/Substances	Photoreceptor, pigment, ink, catalyst, oxidizer, semiconductor material, light receiving element, photocell	1000ppm
Polyviny Chloride (PVC)	Not applicable Level B Materials/Substances	Insulator, chemical resistance, transparency, sheath material	1000ppm

Others	94/62/EC (EU Packaging Directive), US regulations for heavy metals in packaging (17 states)	Packaging material	100 ppm with four substances totaled: lead, cadmium, mercury, and hexavalent chromiun
	Battery Directive 2006/66/EC; The Law No.26.184 Portable Power and Resolution (Argentina); Reglamento Técnico para. Pilas y Baterías de Zinc Carbón, No. 018-2005-PRODUCE (Peru); Korean law No. 8486	Batteries	As the requirements for batteries vary country by country, please contact us for the details.

Appendix 3: Details of Kenwood 25 Control Substances (JIG Substances Classification List)

These lists do not necessarily cover all controlled substances. They simply illustrate chemicals with known CAS numbers.

If a product or component contains related substance and meets the reporting criteria, report

TABLE A - Asbestos	CAS No. or JIG Substances Class. No. if no CAS No.
Asbestos	1332-21-4
Actinolite	77536-66-4
Amosite (Grunerite)	12172-73-5
Anthophyllite	77536-67-5
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Tremolite	77536-68-6

TABLE B - Specific amines formed from azo dyes/pigments
(EU bans certain azo dyes/pigments that generate any of the following 22 aromatic amines when their azo radicals are disconnected through reduction.)

4-aminobiphenyl	92-67-1
Benzidine	92-87-5
o-chlorotoluidine	95-69-2
2-naphthylamine	91-59-8
o-aminoazotoluene	97-56-3
5-nitoro-o-toluidine	99-55-8
p-chloroaniline	106-47-8
2,4-diaminoanisole	615-05-4
4,4'-diaminodiphenylmethane	101-77-9
3,3'-dichlorobenzidine	91-94-1
3,3'-dimethoxybenzidine	119-90-4
3,3'-dimethylbenzidine	119-93-7
4,4'-methylenebis(2-methylaniline)	838-88-0
6-methoxy-m-toluidine	120-71-8
4,4'-methylenebis (2-chloroaniline)	101-14-4
4,4'-oxydianiline	101-80-4
4,4'-diaminodiphenylsulfide	139-65-1
o-toluidine	95-53-4
4-methyl-m-phenylenediamine	95-80-7
2,4,5-trimethylaniline	137-17-7
o-anisidine	90-04-0
4-amino azobenzene	60-09-3

TABLE C - Cadmium/Cadmium compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Cadmium	7440-43-9
Cadmium oxide	1306-19-0
Cadmium sulfide	1306-23-6
Cadmium chloride	10108-64-2
Cadmium sulfate	10124-36-4
Other cadmium compounds	A05990～9

TABLE D - Hexavalent chromium compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Chromium oxide (Hexavalent)	1333-82-0
Barium chromate	10294-40-3
Calcium chromate	13765-19-0
Chromium trioxide	1333-82-0
Leadchromate	7758-97-6
Sodium chromate	7775-11-3
Sodium dichromate	10588-01-9
Strontium chromate	7789-06-2
Potassium dichromate	7778-50-9
Potassium chromate	7789-00-6
Zinc chromate	13530-65-9
Other hexavalent chromium compounds	A07990～9

TABLE E -Lead/Lead compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Lead	7439-92-1
Lead(II)sulfate	7446-14-2
Lead(II)carbonate	598-63-0
Lead hydrocarbonate	1319-46-6
Lead acetate	301-04-2
Lead(II)acetate, trihydrate	6080-56-4
Lead phosphate	7446-27-7
Lead selenide	12069-00-0
Lead(IV)oxide	1309-60-0
Lead(II,IV)oxide	1314-41-6
Lead(II)sulfide	1314-87-0
Lead(II)oxide	1317-36-8
Basic lead(II)carbonate	1319-46-6
Lead hydroxidcarbonate	1344-36-1
Lead(II)phosphate	7446-27-7
Lead(II)chromate	7758-97-6
Lead(II)titanate	12060-00-3
Lead sulfate	15739-80-7
Lead sulphate, tribasic	12202-17-4
lead stearate	1072-35-1
Other lead compounds	A09990～9

TABLE F - Mercury/Mercury compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Mercury	7439-97-6
Mercuric chloride	33631-63-9
Mercury(II)chloride	7487-94-7
Mercuric sulfate	7783-35-9
Mercuric nitrate	10045-94-0
Mercuric(II)oxide	21908-53-2
Mercuric sulfide	1344-48-5
Other mercury compounds	A10990～9

TABLE G - Ozone depleting substances/Isomers*	CAS No. or JIG Substances Class. No. if no CAS No.
Trichlorofluoromethane	75-69-4
Dichlorodifluoromethane (CFC12)	75-71-8
Trifluorochloromethane (CFC13)	75-72-9
Pentachlorofluoroethane (CFC111)	354-56-3
Tetrachlorodifluoroethane (CFC112)	76-12-0
Trichlorotrifluoroethane (CFC113)	354-58-5
1,1,2-trichloro-1,2,2trifluoroethane	76-13-1
Dichlorotetrafluoroethane (CFC114)	76-14-2
Monochloropentafluoroethane (CFC115)	76-15-3
Heptachlorofluoropropane (CFC211)	422-78-6
	135401-87-5
Hexachlorodifluoropropane (CFC212)	3182-26-1
Pentachlorotrifluoropropane (CFC213)	2354-06-5
	134237-31-3
Tetrachlorotetrafluoropropane (CFC214)	29255-31-0
1,1,1,3-tetrachloroterafluoropropane (CFC214)	2268-46-4
Trichloropentafluoropropane (CFC215)	1599-41-3
1,1,1-trichloropentafluoropropane	4259-43-2
1,2,3-trichloropentafluoropropane	76-17-5
Dichlorohexafluoropropane (CFC216)	661-97-2
Monochloroheptafluoropropane (CFC217)	422-86-6
Bromochlorodifluoromethane (Halon 1211)	353-59-3
Bromotrifluoromethane (Halon 1301)	75-63-8
Dibromotetrafluoromethane (Halon 2402)	124-73-2
Carbon tetrachloride (Tetrachloromethane)	56-23-5
1,1,1, -trichloroethane(methyl chloroform) and its isomers except 1,1,2-trichloroethane	71-55-6
Bromomethane (Methyl Bromide)	74-83-9
Dibromofluoromethane	1868-53-7
Bromodifluoromethane	1511-62-2
Bromofluoromethane	373-52-4
Tetrabromofluoroethane	306-80-9
Tribromofluoroethane	C04104
Dibromotrifluoroethane	354-04-1
Bromotetrafluoroethane	124-72-1
Tribromofluoroethane	C04104
Dibromodifluoroethane	75-82-1
Bromotrifluoroethane	421-06-7
Dibromofluoroethane	358-97-4
Bromodifluoroethane	420-47-3
Bromofluoroethane	762-49-2
Hexabromofluoropropane	C04104
Pentabromodifluoropropane	C04104
Tetrabromotrifluoropropane	C04104
Tribromotetrafluoropropane	C04104
Dibromopentafluoropropane	431-78-7
Bromohexafluoropropane	2252-78-0
Pentabromofluoropropane	C04104
Tetrabromodifluoropropane	C04104
Tribromotrifluoropropane	C04104
Dibromotetrafluoropropane	C04104
Bromopentafluoropropane	460-88-8
Tetrabromofluoropropane	C04104
Tribromodifluoropropane	70192-80-2
Dibromotrifluoropropane	431-21-0
Bromotetrafluoropropane	679-84-5
Tribromofluoropropane	75372-14-4
Dibromodifluoropropane	460-25-3
Bromotrifluoropropane	421-46-5
Dibromofluoropropane	51584-26-0
Bromodifluoropropane	C04104
Bromofluoropropane	1871-72-3
Bromochloromethane	74-97-5

* Note: Those substances may include Isomers not listed above. Isomers with a CAS number are added to the list when they become available.

TABLE H - Hydrochlorofluorocarbons/Isomers*	CAS No. or JIG Substances Class. No. if no CAS No.
Dichlorofluoromethane (HCFC 21)	75-43-4
Chlorodifluoromethane (HCFC 22)	75-45-6
Chlorofluoromethane (HCFC 31)	593-70-4
Tetrachlorofluoroethane (HCFC 121)	134237-32-4
1,1,1,2-tetrachloro-2-fluoroethane (HCFC 121a)	354-11-0
1,1,2,2-tetracloro-1-fluoroethane	354-14-3
Trichlorodifluoroethane (HCFC 122)	41834-16-6
1,2,2-trichloro-1,1-difluoroethane	354-21-2
Dichlorotrifluoroethane (HCFC 123)	34077-87-7
Dichloro-1,1,2-trifluoroethane	90454-18-5
2,2-dichloro-1,1,1-trifluoroethane	306-83-2
1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a)	354-23-4
1,1-dichloro-1,2,2-trifluoroethane (HCFC-123b)	812-04-4
2,2-dichloro-1,1,2-trifluoroethane (HCFC-123b)	812-04-4
Chlorotetrafluoroethane (HCFC 124)	63938-10-3
2-chloro-1,1,1,2-tetrafluoroethane	2837-89-0
1-chloro-1,1,2,2-tetrafluoroethane (HCFC 124a)	354-25-6
Trichlorofluoroethane (HCFC 131)	27154-33-2;(134237-34-6)
1-fluoro-1,2,2-trichloroethane	359-28-4
1,1,1-trichloro-2-fluoroethane (HCFC131b)	811-95-0
1-chloro-1-fluoroethane (HCFC-151)	1615-75-4
Dichlorodifluoroethane (HCFC 132)	25915-78-0
1,2-dichloro-1,1-difluoroethane (HCFC 132b)	1649-08-7
1,1-dichloro-1,2-difluoroethane (HFCF 132c)	1842-05-3
1,1-dichloro-2,2-difluoroethane	471-43-2
1,2-dichloro-1,2-difluoroethane	431-06-1
Chlorotrifluoroethane (HCFC 133)	1330-45-6
1-chloro-1,2,2-trifluoroethane	1330-45-6
2-chloro-1,1,1-trifluoroethane (HCFC-133a)	75-88-7
Dichlorofluoroethane (HCFC 141)	1717-00-6; (25167-88-8)
1,1-dichloro-1-fluoroethane (HCFC-141b)	1717-00-6
1,2-dichloro-1-fluoroethane	430-57-9
Chlorodifluoroethane (HCFC 142)	25497-29-4
1-chloro-1,1-difluoroethane (HCFC142b)	75-68-3
1-chloro-1,2-difluoroethane (HCFC142a)	25497-29-4
Hexachlorofluoropropane (HCFC 221)	134237-35-7
Pentachlorodifluoropropane (HCFC 222)	134237-36-8
Tetrachlorotrifluoropropane (HCFC 223)	134237-37-9
Trichlorotetrafluoropropane (HCFC 224)	134237-38-0
Dichloropentafluoropropane, (Ethyne, fluoro-) (HCFC 225)	127564-92-5; (2713-09-9)
2,2-dichloro-1,1,1,3,3-pentafluoropropane (HCFC 225aa)	128903-21-9
2,3-dichloro-1,1,1,2,3-pentafluoropropane (HCFC 225ba)	422-48-0
1,2-dichloro-1,1,2,3,3-pentafluoropropane (HCFC 225bb)	422-44-6
3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC 225ca)	422-56-0
1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC 225cb)	507-55-1
1,1-dichloro-1,2,2,3,3-pentafluoropropane (HCFC 225cc)	13474-88-9
1,2-dichloro-1,1,3,3,3-pentafluoropropane (HCFC 225da)	431-86-7
1,3-dichloro-1,1,2,3,3-pentafluoropropane (HCFC 225ea)	136013-79-1
1,1-dichloro-1,2,3,3,3-pentafluoropropane (HCFC 225eb)	111512-56-2
Chlorohexafluoropropane (HCFC 226)	134308-72-8
Pentachlorofluoropropane (HCFC 231)	134190-48-0
Tetrachlorodifluoropropane (HCFC 232)	134237-39-1
Trichlorotrifluoropropane (HCFC 233)	134237-40-4
1,1,1-trichloro-3,3,3-trifluoropropane	7125-83-9
Dichlorotetrafluoropropane (HCFC 234)	127564-83-4
Chloropentafluoropropane (HCFC 235)	134237-41-5
1-chloro-1,1,3,3,3-pentafluoropropane	460-92-4
Tetrachlorofluoropropane (HCFC 241)	134190-49-1
Trichlorodifluoropropane (HCFC 242)	134237-42-6
Dichlorotrifluoropropane (HCFC 243)	134237-43-7
1,1-dichloro-1,2,2-trifluoropropane	7125-99-7
2,3-dichloro-1,1,1-trifluoropropane	338-75-0
3,3-dichloro-1,1,1-trifluoropropane	460-69-5
Chlorotetrafluoropropane (HCFC 244)	134190-50-4
3-chloro-1,1,2,2-tetrafluoropropane	679-85-6
Trichlorofluoropropane (HCFC 251)	134190-51-5
1,1,3-trichloro-1-fluoropropane	818-99-5
Dichlorodifluoropropane (HCFC 252)	134190-52-6
Chlorotrifluoropropane (HCFC 253)	134237-44-8
3-chloro-1,1,1-trifluoropropane (HCFC 253fb)	460-35-5
Dichlorofluoropropane (HCFC 261)	134237-45-9
1,1-dichloro-1-fluoropropane	7799-56-6
Chlorodifluoropropane (HCFC 262)	134190-53-7
2-chloro-1,3-difluoropropane	102738-79-4
Chlorofluoropropane (HCFC 271)	134190-54-8
2-chloro-2-fluoropropane	420-44-0

* Note: Those substances may include Isomers not listed above. Isomers with a CAS number are added to the list when they become available.

TABLE I - Polybrominated Biphenyls (PBBs)	CAS No. or JIG Substances Class. No. if no CAS No.
Polybrominated Biphenyls	59536-65-1
Dibromobiphenyl	92-86-4
2-bromobiphenyl	2052-07-5
3-bromobiphenyl	2113-57-7
4-bromobiphenyl	92-66-0
Tribromobiphenyl	59080-34-1
Tetrabromobiphenyl	40088-45-7
Pentabromobiphenyl	56307-79-0
Hexabromobiphenyl	59080-40-9
Hexabromo-1,1,-biphenyl	36355-01-8
Firemaster FF-1	67774-32-7
Heptabromobiphenyl	35194-78-6
Octabromobiphenyl	61288-13-9
Nonabromo-1,1'-biphenyl	27753-52-2
Decabromobiphenyl	13654-09-6

TABLE J - Polybrominated Diphenyl Ethers (PBDEs)	
Bromodiphenylether	101-55-3
Dibromodiphenylether	2050-47-7
Tribromodiphenylether	49690-94-0
Tetrabromodiphenylether	40088-47-9
Pentabromodiphenylether Note: Commercially available PeBDPO is a complex reaction mixture containing a variety of brominated diphenyloxides.	32534-81-9 (A CAS number used for commercially branded PeBDPO)
Hexabromodiphenylehter	36483-60-0
Heptabromodiphenylether	68928-80-3
Octabromodiphenylether	32536-52-0
Nonabromodiphenylether	63936-56-1
Decabromodiphenylether	1163-19-5

TABLE K - Polychlorinated Biphenyls and Terphenyls (PCBs and PCTs)	CAS No. or JIG Substances Class. No. if no CAS No.
Polychlorinated Biphenyls	1336-36-3
Aroclor	12767-79-2
Chlorodiphenyl (Aroclor 1260)	11096-82-5
Kanechlor 500	27323-18-8
Aroclor 1254	11097-69-1
Monomethyltetrachlorodiphenylmethane (Ugilec 141)	76253-60-6
Monomethyldichlorodiphenylmethane (Ugilec 121 and Ugilec 21)	B05009
Monomethyldibromodiphenylmethane (DBBT)	99688-47-8
PCT (Polychlorinated terphenyl)	61788-33-8

TABLE L - Polychlorinated Naphthalenes	CAS No. or JIG Substances Class. No. if no CAS No.
Polychlorinated Naphthalenes	70776-03-3
Other polychlorinated Naphthalenes	B06997～9

TABLE M - Radioactive Substances (Radioisotopes)	CAS No. or JIG Substances Class. No. if no CAS No.
Uranium	C06001
Plutonium	C06002
Radon	C06003
Americium	C06004
Thorium	C06007
Cesium (only radioisotopes)	C06006
Strontium (only radioisotopes)	C06007
Other radioactive substances	C06997～9

Note: Those naturally exist should be excluded.

TABLE N - Short-Chain Chlorinated Paraffin	CAS No. or JIG Substances Class. No. if no CAS No.
Chlorinated paraffin (C10-13)	85535-84-8

Note: Only short-chain chlorinated paraffin with carbon length of 10-13 atoms are covered.

TABLE O - Tributyltin Oxide	CAS No. or JIG Substances Class. No. if no CAS No.
Bis(tri-n-butyltin)oxide	56-35-9

TABLE P - Certain Tributyltin (TBTs) and Triphenyltin (TPTs)	CAS No. or JIG Substances Class. No. if no CAS No.
Triphenyltin=N,N'-dimethyldithiocarbamate	1803-12-9
Triphenyltin=fluoride	379-52-2
Triphenyltin=acetate	900-95-8
Triphenyltin=chloride	639-58-7
Triphenyltin=hydroxide	76-87-9
Triphenyltin=fatty acid salts (C=9-11	18380-71-7 18380-72-8 47672-31-1 94850-90-5
Triphenyltin=chloroacetate	7094-94-2
Tributyltin=methacrylate	2155-70-6
Bis(tributyltin)=fumarate	6454-35-9
Tributyltin=fluoride	1983-10-4
Bis(tributyltin)=2,3-dibromosuccinate	31732-71-5
Tributyltin=acetate	56-36-0
Tributyltin=laurate	3090-36-6
Bis(tributyltin)=phthalate	4782-29-0
Copolymer of alkyl=acrylate, methyl=methacrylate and tributyltin=methacrylate (alkyl; C=8)	67772-01-4
Tributyltin=sulfamate	6517-25-5
Bis(tributyltin) maleate	14275-57-1
Tributyltin=chloride	1461-22-9,7432-38-3
Mixture of tributyltin=cyclopentanecarboxylate and its analogs (Tributyltin=naphthenate)	5409-17-2
Mixture of tributyltin=1,2,3,4,4a,4b,5,6,10,10a-decahydro-7-isopropyl-1,4a-dimethyl-1 phenanthlenecarboxylate and its analogs (Tributyltin rosin salt)	26239-64-5

TABLE Q - Antimony/Antimony Compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Antimony (Metallic)	7440-36-0
Antimony trioxide	1309-64-4
Antimony pentoxide	1314-60-9
Antimony trichloride	10025-91-9
Sodium antimonate	15432-85-6
Other antimony compounds	A01997～9

TABLE R - Arsenic/Arsenic Compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Arsenic	7440-38-2
Gallium arsenate	1303-00-0
Calcium arsenate	7778-44-1
Calcium arsenite	27152-57-4
Arsenic pentoxide	1303-28-2
Arsenic trioxide	1327-53-3
Potassium arsenite	10124-50-2
Potassium arsenate	7784-41-0
Lead arsenate	3687-31-8
Other arsenic compounds	A02997～9

TABLE S - Beryllium/Beryllium Compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Beryllium	7440-41-7
Beryllium-aluminum alloy	12770-50-2
Beryllium chloride	7787-47-5
Beryllium fluoride	7787-49-7
Beryllium hydroxide	13327-32-7
Beryllium oxide	1304-56-9
Beryllium phosphate	13598-15-7
Beryllium sulfate	13510-49-1
Beryllium sulfate tetrahydrate	7787-56-6
Beryl ore	1302-52-9
Other beryllium compounds	A03997～9

TABLE T - Bismuth/Bismuth Compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Bismuth	7440-69-9
Bismuth trioxide	1304-76-3
Bismuth nitrate	10361-44-1
Other bismuth compounds	A04997～9

TABLE U - Brominated Flame Retardants (other than PBBs and PBBEs)	CAS No. or JIG Substances Class. No. if no CAS No.
Brominated flame retardant which falls under the notation from ISO 1043-4 code number FR(14): Aliphatic/alicyclic brominated compounds	B08001
Brominated flame retardant which falls under the notation from ISO 1043-4 code number FR(15): Aliphatic/alicyclic brominated compounds in combination with antimony compounds	B08002
Brominated flame retardant which falls under the notation from ISO 1043-4 code number FR(16): Aromatic brominated compounds other than brominated diphenyl ether and biphenyls	B08003
Brominated flame retardant which falls under the notation from ISO 1043-4 code number FR(17): Aromatic brominated compounds, other than brominated diphenyl ether and biphenyls, in combination with antimony compounds	B08004
Brominated flame retardant which falls under the notation from ISO 1043-4 code number FR(22): Aliphatic/alicyclic chlorinated and brominated compounds	B08005
Brominated flame retardant which falls under the notation of ISO 1043-4 code number FR(42): Brominated organic phosphorus compounds	B08006
Poly(2,6-dibromo-phenylene oxide)	69882-11-7
Tetra-decabromo-diphenoxy-benzene	58965-66-5
1,2-Bis(2,4,6-tribromo-phenoxy) ethane	37853-59-1
3,5,3',5'-Tetrabromo-bisphenol A (TBBA)	79-94-7
TBBA, unspecified	30496-13-0
TBBA-epichlorohydrin oligomer	40039-93-8
TBBA (TBBA-diglycidyl-ether oligomer)	70682-74-5
TBBA carbonate oligomer	28906-13-0
TBBA carbonate oligomer, end capped with phenoxy	94334-64-2
TBBA carbonate oligomer, terminated with 2,4,6-tribromophenol	71342-77-3
TBBA-bisphenol A-phosgene polymer	32844-27-2
Brominated epoxy resin end-capped with tribromophenol	139638-58-7
Brominated epoxy resin end-capped with tribromophenol	135229-48-0
TBBA-(2,3-dibromo-propyl-ether)	21850-44-2
TBBA bis-(2-hydroxy-ethyl-ether)	4162-45-2
TBBA-bis-(allyl-ether)	25327-89-3
TBBA-dimethyl-ether	37853-61-5
Tetrabromo-bisphenol S	39635-79-5
TBBS-bis-(2,3-dibromo-propyl-ether)	42757-55-1
2,4-dibromo-phenol	615-58-7
2,4,6-tribromo-phenol	118-79-6
Pentabromo-phenol	608-71-9
2,4,6-tribromo-phenyl-allyl-ether	3278-89-5
Tribromo-phenyl-allyl-ether, unspecified	26762-91-4
Bis(methyl)tetrabromo-phthalate	55481-60-2
Tetrabromophthalate bis(2-ethylhexyl)	26040-51-7
2-Hydroxy-propyl-2-(2-hydroxy-ethoxy)-ethyl-TBP	20566-35-2
TBPA, glycol-and propylene-oxide esters	75790-69-1
N,N'-ethylene –bis-(tetrabromo-phthalimide)	32588-76-4
Ethylene-bis(5,6-dibromo-norbornane-2,3-dicarboximide)	52907-07-0
2,3-dibromo-2-butene-1,4-diol	3234-02-4

TABLE U (continued)	CAS No. or JIG Substances Class. No. if no CAS No.
Dibromo-neopentyl-glycol	3296-90-0
2,3-dibromo-propanol	96-13-9
Tribromo-neopentyl-alcohol	36483-57-5
Poly tribromo-styrene	57137-10-7
Tribromo-styrene	61368-34-1
Dibromo-styrene grafted PP	171091-06-8
Poly-dibromo-styrene	31780-26-4
Bromoparaffin/chloroparaffin	68955-41-9
Bromo-alpha-olefin/Chloro-alpha-olefin	82600-56-4
Bromoethylene	593-60-2
Tris-(2,3-dibromo-propyl)-isocyanurate	52434-90-9
Tris(2,4-dibromo-phenyl) phosphate	49690-63-3
Tris(tribromo-neopentyl) phosphate	19186-97-1
Chlorinated and brominated phosphate esther	125997-20-8
Pentabromo-toluene	87-83-2
Pentabromo-benzyl bromide	38521-51-6
1,3-Butadiene homopolymer, brominated	68441-46-3
Pentabromo-benzyl-acrylate, monomer	59447-55-1
Pentabromo-benzyl-acrylate, polymer	59447-57-3
Decabromo-diphenyl-ethane	84852-53-9
Brominated trimethylphenyl-lindane	59789-51-4
Brominated trimethylphenyl-lindane	59789-51-4
Other brominated flame retardants	B08997～9
1,2,5,6,9,10-Hexabromo-cyclo-dodecane (HBCD)	3194-55-6
Tetrabromocyclooctane	31454-48-5
1,2-dibromo-4-(1,2 dibromo-ethyl)-cyclo-hexane	3322-93-8
TBPA Na salt	25357-79-3
Tetrabromo phthalic anhydride	632-79-1

TABLE V - Nickel	CAS No. or JIG Substances Class. No. if no CAS No.
Nickel	7440-02-0

Report any use of nickel when it falls under specific regulated applications where it is likely that skin has direct contact with nickel for a long time, such as an enclosure designed for a portable electronic device. Though nickel is categorized as the Level B Substances, be sure to report when the product contains nickel.

TABLE W - Phthalates	CAS No. or JIG Substances Class. No. if no CAS No.
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7
Dibutylphthalate (DBP)	84-74-2
Diisononyl phthalate (DINP)	28553-12-0
Diisodecyl phthalate (DIDP)	26761-40-0
Butyl benzyl phthalate (BBP)	85-68-7
Di-n-octyl phthalate (DNOP)	117-84-0

TABLE X - Selenium/Selenium Compounds	CAS No. or JIG Substances Class. No. if no CAS No.
Selenium	7782-49-2
Hydrogen selenide	7783-07-5
Sodium selenide	1313-85-5
Selenium dioxide	7446-08-4
Sodium selenate	10112-94-4
Dimethyl selenide	593-79-3
Selenium oxide	12640-89-0
Other selenium compounds	A13997～9

TABLE Y - Polyvinyl Chloride	CAS No. or JIG Substances Class. No. if no CAS No.
Polyvinyl Chloride (PVC)	9002-86-2

Formaldehyde	CAS No. or JIG Substances Class. No. if no CAS No.
Formaldehyde	50-00-0

To: Kenwood Corporation

Date:

Declaration of No-Use of Banned Substances

We hereby declare that we manufacture this delivered product with components/materials that conform to "Kenwood Green Procurement Guideline (5th edition)."
In the event that any relevant regulation or the "Kenwood Green Procurement Guideline" is revised, we will examine the revision and, if any non-conformity is found with this product, report accordingly.

Appendix 4

Sample

Component Name:	
Kenwood Part No:	A-Code
Our Part Number:	

Destination of Deliver	
☐ JPN	Kenwood Corporation, Kenwood Yamagata Corporation, Kenwood Nagano Corporation
☐ SKE	Shanghai Kenwood Electronics Co.Ltd.
☐ KETM	Kenwood Electronics Technologies (M) Sdn.Bhd.
☐ KETS	Kenwood Electronics Technologies (S) Pte.Ltd.
☐ KEB	Kenwood Electronics Bretagne S.A.
☐ KEHK	Kenwood Electronics Hongkong Ltd.
☐	

Remarks:

Company Name:	
Vendor Code:	
Department:	
Representative:	
Signature:	

Page:1/1

Ingredients of Materials Ver.5.0

Date:

Company Name	
Issued by (Name)	

Remarks

	Part Number	A-Code
Kenwood		
Supplier		
Part Weight[mg]		

Component Part			Material						Substance			Additional Information	
Part Name	Weight[mg]	Q'ty of Use	Portion of Use	Mat.Class Code	Material Name	Trade Name/ Material Code	Material Number	Material Weight [mg]	Name of Chemical	CAS No or JIG Subst. Class. No	Content Rate(% in weight)	Purpose of Use (drop-down list)	Exception for Applications (drop-down list)

Appendix 5

Sample

KENWOOD

To:

Vendor Code:

Procurement Base:

Control No.:

Date of Report:

Requested by:

Environmental Survey Request for OEM Components

■ At the request of OEM customers (automobile manufacturers), you are required to provide the documents as listed below.
As we need to submit the documents along with the products delivery, please be sure to provide us with the documents before the specified date.

	Documents you should provide	Notes	File Format
1	**JAMA Standard Material Datasheet**	You can download the JAMA Standard Material Datasheet from the JAPIA Web site. You will be required to enter a password when you fill in the sheet. If your password is unknown, please contact us. ・JAPIA Web site: http://www.japia.or.jp/work/2007/09/datasheet.html	**csv**
2	Form 1 **Ingredients of Materials**	Though, in principle, you need to disclose all the ingredients, you are allowed to describe substances, other than those listed in the GADSL, in the "Others" category, provided that the entire content is 10% or less (for pigments/dyes, 5% or less). If you have already provided any identical information during surveys conducted based on the Kenwood Green Procurement Guideline, please notify us accordingly.	**Excel**
3	Form 2 **GADSL Contents Report**	Appendix 6 For the latest GADSL, refer to the GADSL Web site. ・GADSL Web site: http://www.jig.org	**pdf.**
4	**Evidence (Test Report)**	You can use any form as long as it faithfully describes the firm name that analyzed the component, signature or seal of the responsible person, date of analysis, analysis method, instruments used, measurable limits, and analysis results	**pdf.**

Sample

KENWOOD Part No.		A-CODE		**Supplier Part No.**	
Date of Submit	**Please provide not later than:**				

☆ **For a series of components that share the same materials with the same contents, you can provide typical data.**

☆ **Documents and forms available at our Web site;**
Form 1: Ingredients of Materials
Form 2: GADSL Contents Report

For Kenwood Use		
Sector	Name	Received Date
Systems Engineering		
Buyer		
Procurement control		
Parts Quality		

Contact for environmental surveys:
Systems Engineering Department, Car Electronics OEM Division, Kenwood Corporation
e-mail：CE-KANKYO@kenwood.co.jp
Tel: +81 42 646 9848

Return Route: Procurement div -> Engineering dept (Specification requestor -> Systems Engineering) -> Quality Innovation dept

Do not Separate this form

For answer by the Supplier

To:

Your Company Name:	
Reported by:	
Received Date:	
Return this form with the boxes for provided documents checked.	
JAMA Standard Material Datasheet	☐
Ingredients of Materials	☐
Ingredient of Materials: already provided with Purchase Specification	☐
GADSL Contents Report	☐
Evidence (Test Report)	☐

Please reply us, indicating the date you received this request.

Supplier	
Approved	**Issued**

At your request, we can provide seminars to explain environmental surveys for OEMs.
Do you want us to provide the seminar? ☐ Yes (around / /) ☐ No

Ver. 1.4

Appendix 7: Revision History

Revision from the 4th edition to the 5th edition
Revised Date: March 1, 2008
Key Revision

No.	Revised Sections	Revision Overview
1	Section 4.4 and forms	Environmental survey documents for products delivered to automobile manufacturers and their explanatory references were added.
2	Section 3.3	The definition of control substances was modified. The conventional definition was withdrawn and a new definition of the Kenwood Levels A and B Substances was added.
3	Appendix "Details of 25 Control Substances"	Based on the revision of JGPSSI JIG, the "Details of 25 Control Substances" and "Relevant Laws/Restrictions" were totally revised.
4	Related forms (separate files)	The separate forms, including "Ingredients of Materials" and "Declaration of No-Use of Banned Substances", were established and became available by downloading from the Web site.
5	Form "Declaration of No-Use of Banned Substances" Form "Ingredients of Materials"	The forms for "Ingredients of Materials" and "Declaration of No-Use of Banned Substances" were modified.
6	Form "About Green Consciousness"	Description about third-party certification other than ISO14001 was added to "About Green Consciousness."
7	General Revision	Minor erroneous description was corrected.

Revision from the 3rd edition to the 4th edition
Revised Date: September 1, 2006
Key Revision

No.	Revised Sections	Revision Overview
1	Section 2	The definition of the scope was rhetorically modified.
2	Section 3.2	The criteria for materials, components, and products to which this guideline should apply were modified.
3	Section 3.3	The definition for certain terms and the description for documents that vendors should provide were modified.
4	Section 4.2	The form for the "Declaration of No-Use of Banned Substances" was added.
5	Section 5	Description about analysis that can be used for actually delivered products as an evaluation means was added.
6	25 Control Substances in Kenwood	Description about the criteria for conditionally restricted substances was added.
7	25 Control Substances in Kenwood	The status for polyvinyl chloride (PVC) was changed from a tracking substance to a restricted substance.
8	Relevant Laws/Restrictions	Some laws, such as a Chinese law, were added.
9	Definition of the one detected as impurities	The title was changed to "Key Banned Substances and Their Allowable Threshold Values."
10	Key Banned Substances and Their Allowable Threshold Values	The threshold values for packaging materials were added.
11	Queries about Green Consciousness	The form for the Queries was changed to Ver. 2.
12	Ingredients of Materials	The form for the Ingredients of Materials was changed to Ver. 4.0.
13	General Revision	Minor erroneous description was corrected.

Revision from the 2nd edition to the 3rd edition.
Revised Date: January 18, 2005
Key Revision

No.	Revised Sections	Revision Overview
1	29 Control Substances in Kenwood	The number of subject substances was changed from 29 to 25. Gold, silver, copper, magnesium, and palladium were deleted from the subject substances. Formaldehyde was added to the subject substances.
2	Relevant Laws/Restrictions	Description for banned substances and restricted substances as well as for conditionally restricted substances was added.
3	25 Control Substances in Kenwood	The description was changed according to the change in the control substances.
4	Definition of the one detected as impurities	Description for control over threshold values are added.
5	Queries about Green Consciousness	The contents of queries were updated.
6	Ingredients of Materials	The form was changed to Ver. 2.2. Some description was updated.