

**Kodak Alaris Environmental, Health and Safety**  
**Specifications for Products, Parts and Packaging**  
**2017 Version 3**

<b><u>Table of Contents</u></b>		<b><u>Page</u></b>
1.0	Purpose.....	1
2.0	Scope .....	1
3.0	Supplier Responsibilities.....	1
4.0	Definitions .....	2
5.0	Electrotechnical Product Requirements.....	3
6.0	Article Requirements.....	5
7.0	Chemical Requirements.....	6
8.0	Packaging Requirements .....	7
9.0	Appendix.....	10
	Appendix A – Electrotechnical Product: Restricted Materials .....	10
	Appendix B – Articles: Restricted Materials .....	11
	Appendix C – Chemicals: Restricted Materials.....	12
	Appendix D – Packaging: Restricted Materials.....	13
	Appendix E – Expanded chemical lists with Chemical Abstract Services (CAS) numbers.....	144
	Appendix F – Safety Traceability Requirements for Critical Components .....	20
	Appendix G – Product Safety and EMC References .....	21
	Appendix H – Packaging References .....	22
	Appendix I – Australian Packaging Covenant .....	23
	Appendix J – Revision History.....	24

## **1.0 Purpose**

Kodak Alaris expects that products supplied to us will meet all applicable legal requirements during manufacture, distribution, and sale. Supplier products may also be required to meet additional Kodak Alaris requirements that go beyond compliance in order to reduce the environmental impact of our products.

## **2.0 Scope**

This document and the corresponding Kodak Alaris Supplier Declaration Form apply to all products supplied to Kodak Alaris and the materials used to manufacture these products, regardless of production location. The Kodak Alaris Supplier Declaration Form (DF) specifies EHS requirements for the following types of products:

- Electrotechnical products
- Articles
- Chemical products
- Packaging

## **3.0 Supplier Responsibilities**

### **3.1 Manufacturing Requirements:**

**3.1.1 Manufacturing/Export approvals:** The Supplier shall obtain and maintain any necessary approvals and authorizations from regulatory agencies and other government organizations to manufacture in and export from their country of manufacture.

**3.1.2 Ozone Depleting substances:** Suppliers shall not use any ozone depleting substances (as identified in [Appendix E](#)) to manufacture products supplied to Kodak Alaris.

**3.1.3 Conflict Minerals Requirements:** If requested by Kodak Alaris, Suppliers may need to complete and return a conflict minerals questionnaire.

**3.2 Conformance Documentation:**

The Supplier is expected to complete the Kodak Alaris EHS Supplier Declaration Form (DF) in order to document product conformance for all Supplier sites that supply products to Kodak Alaris.

**3.3 Expectation Regarding Second and Third Tier Suppliers:**

The Supplier is responsible for contacting their suppliers to ensure accurate and complete information is provided to Kodak Alaris. Documentation and/or test data, including documentation and data from the Supplier's supply chain, shall be kept on file and made available upon request by Kodak Alaris.

**3.4 Product Changes, Discontinuance, Recalls or Non-Conformance:**

The Supplier is requested to communicate in writing to Kodak Alaris (at the contact listed in the Kodak Alaris EHS Declaration Form) any changes, discontinuance, recalls, or non-conformance that could impact the safety, health or environmental performance of a Kodak Alaris product.

**4.0 Definitions**

**Articles** – Manufactured items that are formed to a specific shape or design, which have an end-use function in whole or in part dependent on their shape or design, but does not require alternating or direct electric current to operate. Examples of Articles include film, paper, film or paper base, printed materials, and compact discs. *Note: Batteries and components used to manufacture Electrotechnical Products are **not** articles, but are **Electrotechnical Products** (see definition).*

Articles also include **Packaging-Related Product Components** (see definition).

**Chemicals** – Products or raw materials made of organic or inorganic substances with a distinct molecular composition, which can be a solid, liquid or gas. Chemicals may be individual chemicals or mixtures. Chemicals are typically consumed during use. Examples of chemical products include toners, inks, plate processing chemistry, photo processing chemicals and alcohol cleaning wipes. Examples of raw materials include solvents, polymers and chemical raw materials.

**Conflict Minerals** – Conflict minerals (currently tantalum, tin, tungsten, gold, and their derivatives) as defined by the US 17CFR249b.400.

**Electrotechnical Products** – Devices that require alternating or direct electric current to operate. Finished Electrotechnical Products include standalone printers, presses, plate setters, plate processors, scanners, work stations, and external power supplies.

Electrotechnical Products also applies to items that are formed to a specific shape or design which are intended to be incorporated into an Electrotechnical Product and may or may not have a power source. This includes, but is not limited to: sensors, hardware components, printed circuit boards, batteries, cables, cords, paper trays and sub-components used to assemble equipment products and/or systems.

**Homogeneous Material** – A material that cannot be mechanically disjointed into different materials. The term homogeneous is understood as of uniform composition throughout. Examples of homogeneous materials would be individual types of plastics, ceramics, glass, metals, alloys, paper board, resins and coatings. The term mechanically disjointed means that the materials can be, in principle, separated by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes.

**Intentionally added** – Deliberate use in the formulation of a product where its continued presence is desired to provide a specific characteristic, appearance or quality.

**Known to be present** – Supplier has knowledge that the material is present through existing analytical information, second tier supplier declarations or other methods.

**Packaging** – Any material intended to be used for the containment, protection, handling, delivery and presentation of goods from raw materials to processed goods from the producer to the user or consumer as defined by the European Parliament and Council Directive 94/62/EC on Packaging and Packaging Waste. Packaging may be classified as primary packaging, grouped or secondary packaging, and transport or tertiary packaging. Examples of packaging include: cartons, crates, pails, trays, bags, pallets, pallet collars, drums, load boards, skids, dunnage, interior or exterior blocking, bracing, cushioning, weatherproofing, exterior strapping, stretch wrapping, coatings, closures, inks, adhesives, interleaving paper and labels.

**Packaging-Related Product Component** – A part or constituent of the product that is essential to the use of the product for its intended purpose or application. Within an imaging system, it generally serves as an interface with an electrotechnical product and may interface with internal manufacturing processes. The component may also be applied directly to a product (such as a label.) In this case, the principle function of the packaging-related product component should be to inform, not to protect or contain. The Packaging-Related Product Component may also assist in the manufacture and use of an otherwise packaged product. The component may be a robust item of long service life, shaped so as to offer specific accommodation to the relevant product for repeated placement or storage. Examples of Packaging-Related Product Components include: ink cartridges, ink tanks, toner bottles, film spool or reels, and plastic compact disc cases.

**Recycled Content** – The concentration of materials that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (pre-consumer) or after the consumer use (post-consumer) and have been reused in the production of another product.

**Reportable application** – Specific purpose of use that triggers the reporting requirement Note: This use is defined in the scope of the underlying law or industry standard. Examples include batteries, textiles, wood, etc.

**Rigid Plastic Packaging Container (RPPC)** – Any plastic package having a relatively inflexible finite shape or form that has a minimum capacity of eight fluid ounces (236.6 milliliters), or the equivalent volume, and a maximum capacity of five fluid gallons (18.9 liters), or the equivalent volume, and is capable of maintaining its shape while holding other products. RPPCs include, but are not limited to: bottles, cartons, pails, clamshells and other receptacles.

**Threshold level** – Concentration level which defines the limit above which the presence of a substance in a product shall be declared.

## 5.0 [Electrotechnical Product Requirements](#)

The Supplier shall evaluate **Electrotechnical Products** to ensure the following EHS Product Specifications are met.

### 5.1 **Restricted Materials:**

[Appendix A](#) provides the web address to the International Electrotechnical Commission IEC 62474 – Material Declaration for Products of and for the Electrotechnical Industry *Declarable substance groups and declarable substances*. This list includes restricted materials, reportable applications and threshold levels.

*Reference substances* (also part of IEC 62474, at the same web address) contains an expanded listing of these materials, which includes available Chemical Abstract Services (CAS) numbers.

Unless Kodak Alaris has confirmed acceptability for use and provided written permission to a Supplier, Products shall not contain restricted materials above the prescribed thresholds for the reportable applications listed in [Appendix A](#). It is acceptable to use a RoHS material if the use is an approved EU RoHS exemption which should be listed on the Kodak Alaris EHS Supplier Declaration Form (DF).

## **5.2 Substances of Very High Concern (SVHC):**

Suppliers are required to declare SVHC present at greater than 0.1% by weight. SVHC are identified on the “Candidate List” in Annex XIV of the European Chemical Agency Article 59(1) of the Regulation (EC) No. 1907/2006 (European Union REACH). SVHC are found at: <https://echa.europa.eu/candidate-list-table> on the European Chemical Agency website.

## **5.3 Safety Traceability Requirements for Critical Components:**

Suppliers providing plastics, foam, wire harnesses, circuit boards and safety labels, used to manufacture a product that will be certified by an independent product safety certification organization (e.g. UL, TUV, Intertek, Nemko), shall meet the minimum safety traceability requirements. [Appendix F](#) identifies these requirements. Meeting these requirements will demonstrate to regulatory inspectors that the material and/or part is identical or equivalent to what is listed in the agency's product safety inspection report.

## **5.4 Batteries:**

Suppliers shall supply the following battery information:

- the number and weight of embedded or non-embedded batteries shipped with the product
- battery chemistry
- form factor (shape)
- voltage
- whether primary (non-rechargeable) or secondary (rechargeable)
- transportation classification
- Safety Data Sheet
- test reports and/or certifications (e.g., UN Safety Test Certificate, Korea Product Safety Testing Certificate)

## **5.5 Finished Electrotechnical Product Requirements:**

Finished Electrotechnical Products includes, but is not limit to, standalone printers, processors, scanners, work stations and external power supplies.

**5.5.1 Product Safety (PS) and EMC:** Upon request, certificates, test reports and supporting documentation shall be provided for all countries in which the Supplier has approval to market.

Manuals or guides shall be provided which identify appropriate preventative and protective measures to be employed to mitigate risk to customers and service personnel during installation, use and service.

Appendix G includes references to international regulations and standards regarding Product Safety. This is not a complete list of requirements.

**5.5.2 Sound:** Products shall conform to sound pressure levels that may be specified in the PRD. General office systems shall be less than 70 dB(A). Information Technology and Telecommunications Equipment sound pressure levels shall be measured according to ISO 7779. Measured noise levels should represent the full system configuration offered for sale. Products that are part of a network application (printers, accessories) are to be tested in the confines of that application.

**5.5.3 Energy Efficiency:** Products shall conform to all applicable energy efficiency regulations including testing, labeling and registrations applicable to the equipment type and the intended markets. Additional detail regarding product specific efficiency requirements and criteria (e.g. ENERGY STAR) may be included in the Product Requirements Document (PRD).

**5.5.4 Emissions from Products:** Suppliers shall identify airborne emissions that may be generated/emitted during normal conditions of use or foreseeable misuse (e.g., volatile organic compounds, carbon black, ozone, styrene, objectionable odors and dust). Upon request, certificates, test reports and supporting documentation shall be provided.

**5.5.5 Paper and Printed Materials:** Pulp and paper products shall be sourced from legally harvested forests. Suppliers shall have a process for determining the origin of all pulp and paper products and make this information available to Kodak Alaris upon request.

**5.5.6 Safety Data Sheets (SDS):** Where chemical solutions or mixtures used with equipment components or spare parts (i.e. paints, cleaning solutions, coolants) the supplier shall provide a SDS for chemicals. See Chemical Requirements for further details (refer to section 7.3).

## 6.0 Article Requirements

The Supplier shall evaluate **Articles** to ensure the following EHS Product Specifications are met. Examples of Articles include film, paper, film or paper base, printed materials, and compact discs. *Note: Batteries and components used to manufacture Electrotechnical Products are **not** articles, but are **Electrotechnical Products** (see definition).*

### 6.1 Restricted Materials and Categories:

Appendix B provides the web address to the International Electrotechnical Commission IEC 62474 – Material Declaration for Products of and for the Electrotechnical Industry *Declarable substance groups and declarable substances*. Since articles are often in scope of Electrotechnical applications, Suppliers should identify when a material on this list is intentionally added or known to be present in any article, regardless of the Reportable Applications or Reporting Threshold listed.

The *Reference substances* list (also part of IEC 62474, at the same web address) contains an expanded listing of these materials, which includes available Chemical Abstract Services (CAS) numbers.

Appendix B also identifies specific applications having additional restricted categories of materials and the criteria Suppliers shall use to evaluate each component of these specific **Articles**.

Unless Kodak Alaris has confirmed acceptability for use and provided written permission to a Supplier, Products shall not contain restricted materials above the prescribed thresholds for the reportable applications listed in Appendix B.

### 6.2 Materials Requiring Declaration

**6.2.1 SVHC:** Suppliers are required to declare SVHC present at greater than 0.1% by weight. SVHC are identified on the “Candidate List” in Annex XIV of the European Chemical Agency Article 59(1) of the Regulation (EC) No. 1907/2006 (European Union REACH). SVHC are found at: <https://echa.europa.eu/candidate-list-table> on the European Chemical Agency website.

**6.2.2 Proposition 65:** Suppliers shall declare when labeling is required in the state of California, per the California State Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). The Proposition 65 list includes lead, mercury and DEHP, and can be found at [http://www.oehha.ca.gov/prop65/prop65\\_list/Newlist.html#list](http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html#list).

**6.2.3 Hazardous Waste Information:** Suppliers are required to provide the following information:

- Hazardous materials evaluation - identify components listed in 40 CFR 261.24, Table 1
- TCLP (Toxicity Characteristic Leaching Procedure) test data for any articles which contain a component from 40 CFR 261.24, Table 1

### 6.3 Chemical Releases or emissions from Articles during Foreseeable Use:

Suppliers are required to meet all Section 7.0 Chemical Requirements.

### 6.4 Biocides/Biostats/Pesticides:

Suppliers are required to identify biocides/biostats/pesticides contained in **Articles** and upon request, provide information and other assistance to Kodak Alaris to meet regulatory requirements in countries with biocidal or related requirements. Countries having established biocide directives include, but are not limited to Canada (PCA), European Union (Biocide Products Directive) and US (FIFRA).

**6.5 Paper and Printed Materials:** Pulp and paper products shall be sourced from legally harvested forests. Suppliers shall have a process for determining the origin of all pulp and paper products and make this information available to Kodak Alaris upon request.

**6.6 Product Safety (PS):**

**Articles** shall conform to all applicable Product Safety (PS) standards appropriate for intended markets identified in the Product Requirements Document (PRD). Upon request, certificates, test reports and supporting documentation shall be provided.

**7.0 Chemical Requirements**

The Supplier shall evaluate **Chemical Products** to ensure the following EHS Product Specifications are met.

**7.1 Restricted Materials and Categories:**

[Appendix C](#) identifies restricted categories of materials and the criteria Suppliers shall use to evaluate each component of the **Chemical**, as well as reportable applications and threshold levels.

[Appendix E](#) contains an expanded listing of these materials, which includes available Chemical Abstract Services (CAS) numbers.

Unless Kodak Alaris has confirmed acceptability for use and provided written permission to a Supplier, products shall not contain restricted materials above the prescribed thresholds for the reportable applications listed in [Appendix C](#).

**7.2 Hazardous Waste information:**

Suppliers are required to provide the following information:

- Hazardous materials evaluation - Identify components listed in 40 CFR 261.33, and provide the weight %
- Flashpoint
- pH
- Reactivity evaluation, as defined in 40 CFR 261.23

**7.3 Safety Data Sheets (SDS):**

Suppliers are required to provide a SDS for chemicals, solutions or mixtures to the Kodak Alaris purchasing representative and to the contact person listed on the EHS Supplier Declaration Form. The SDS shall comply with applicable provisions of the OSHA Hazard Communication Standard 1910.1200, GHS (Globally Harmonized System of Classification and Labeling of Chemicals, or the comparable regulation for the country where the material is transported. The SDS shall be provided in English, but may be required in other languages.

**7.4 Global Inventory Status:**

Suppliers are required to confirm **Chemicals** (including those in solutions, mixtures or released from **Articles** during foreseeable use) comply with all applicable chemical registration and premanufacture notification requirements in those countries that have enacted such requirements. Countries having chemical control regulations include, but are not limited to, Australia (AICS), Canada (DSL/NDSL), China (IECSC), European Union (EINECS), Japan (ENCS), Korea (ECL), New Zealand (NZIoC), Philippines (PICCS), Province of Ontario, Switzerland, Taiwan, Turkey and United States (TSCA).

## 7.5 REACH:

To assist Kodak Alaris in meeting requirements under European Union REACH Regulation (EC) No. 1907/2006, Suppliers are required to provide the following information:

- Identify whether the **Chemical** is manufactured in Europe
- Identify whether Supplier has pre-registered or registered the **Chemical**
- Identify if the **Chemical** is exempt from reporting (and why)
- Indicate if Supplier's "Only Representative" will agree to include Kodak Alaris volume/use should Kodak Alaris have applicable reporting requirements for the **Chemical**.

## 7.6 Biocides/Biostats/Pesticides:

Suppliers are required to identify biocides/biostats/pesticides contained in **Chemicals** and upon request, provide information and other assistance to Kodak Alaris to meet regulatory requirements in countries with biocidal or related requirements. Countries having established biocide directives include, but are not limited to Canada (PCA), European Union (Biocide Products Directive) and US (FIFRA).

## 7.7 Product Safety (PS):

**Chemicals** shall conform to all applicable Product Safety (PS) standards appropriate for intended markets identified in the Product Requirements Document (PRD). Upon request, certificates, test reports and supporting documentation shall be provided

## 7.8 Emissions from Products:

Suppliers shall identify airborne emissions that may be generated/emitted during normal conditions of use or foreseeable misuse (e.g., volatile organic compounds, carbon black, ozone, styrene, objectionable odors and dust). If requested by Kodak, Supplier shall provide copies of emissions testing or additional air emissions data.

## 8.0 Packaging Requirements

The Supplier shall evaluate **Packaging Materials** to ensure the following EHS Product Specifications are met.

### 8.1 Restricted Materials:

[Appendix D](#) identifies restricted materials, reportable application and threshold levels.

[Appendix E](#) contains an expanded listing of these materials, which includes available Chemical Abstract Services (CAS) numbers.

Unless Kodak Alaris has confirmed acceptability for use and provided written permission to a Supplier, **Packaging** shall not contain restricted materials above the prescribed thresholds for the reportable applications listed in [Appendix D](#).

### 8.2 Substances of Very High Concern (SVHC):

Suppliers are required to declare SVHC present at greater than 0.1% by weight. SVHC are identified on the "Candidate List" in Annex XIV of the European Chemical Agency Article 59(1) of the Regulation (EC) No. 1907/2006 (European Union REACH). SVHC are found at: <https://echa.europa.eu/candidate-list-table> on the European Chemical Agency website.

### 8.3 Plastic Packaging:

Plastic packaging materials must be marked with the appropriate Society of the Plastics Industry Inc. (SPI) resin identification code. Exceptions include metalized films and laminates, shrink wrap, foams and materials that have dimensions or color that make marking impractical.

#### **8.4 Paper Packaging:**

Pulp and paper products shall be sourced from legally harvested forests. Suppliers shall have a process for determining the origin of all pulp and paper products and make this information available to Kodak Alaris upon request.

Recycled content targets:

- Paperboard – 80%
- Corrugated fiberboard – 25%
- Solid fiberboard – 40%
- Spiral-wound tubes – 90%

Additionally, elemental chlorine shall not be used to bleach virgin or recovered content fibers used in product packaging.

#### **8.5 Wood Packaging:**

Solid wood packaging materials that are used in international trade and may serve as a pathway for plant pests shall be treated and marked when exported or imported and be free of bark, according to UN Standard ISPM-15. For further information refer to [Appendix H](#).

Sawdust, wood wool, shavings and raw wood cut into thin pieces are not suitable pathways for introduction of quarantine pests and are not regulated unless technically justified.

#### **8.6 Regional Requirements for Product Packaging:**

**Packaging** must comply with various state, country and regional requirements as outlined below.

Additional information on these requirements can be obtained from references contained in [Appendix H](#). More specific requirements driven by the product market will be defined in the Product Requirements Document.

**8.6.1 Regional Packaging Fees:** Suppliers will be asked to provide the weight, volume, and material composition of all **Packaging** supplied to Kodak Alaris in order to facilitate calculation of Regional Packaging Fees.

**8.6.2 Requirements in the United States:** All Rigid Plastic Packaging Containers (RPPC) shall contain at least 25% post consumer recycled content to meet various state requirements. Other allowable alternatives are limited to those that may be defined in the Product Requirements Document.

##### **8.6.3 Requirements in the European Union (EU):**

###### **A. Article 9 of the European Parliament and Council Directive 94/62/EC on packaging and packaging waste**

In addition to satisfying the "essential requirements" in this Directive, the Directive also includes a "conformity assessment procedure" which requires the manufacturers to "certify that their packaging complies with the requirements of the packaging and packaging waste directive." Unless **Packaging** design is specified by Kodak Alaris, Suppliers of packaged products shall be able to produce the Conformity Assessment Report when requested.

###### **B. Manual Handling**

EU Council Directive 90/269/EEC requires that manually handled packages, where there is a risk of back injury to workers, be marked with the weight of the load and the center of gravity when a package is asymmetrically loaded.

The maximum package weight for products, which are expected to be handled manually, should not be greater than 29 pounds (lbs) (13 kg). Any package weighing more than 40 lbs (19 kg) should consider adding additional design features, such as handles or handle holes, to aid in the manual handling of that case. Any package weighing more than 51 lbs (23 kg) should be transported on a pallet or some other mechanical means of movement.



**C. Dimethylfumarate**

According to European Commission Decision 2009/251/EC, dimethylfumarate (CAS No. 624-49-7) cannot be present in **Packaging** at a concentration greater than 0.1 mg/kg. Because this substance is most commonly used in desiccants, Suppliers of these packaging components are required to provide an EU compliant Material Safety Data Sheet and an analytical test report for dimethylfumarate content from a laboratory accredited to ISO/IEC 17025 or an equivalent standard in order to demonstrate that this requirement has been met.

- 8.6.4 Requirements in China:** All external packaging for electronic and electrical equipment covered under China's *Management Methods for Controlling Pollution Caused by Electronic Information Products (China RoHS)* shall be labeled as required by China's National Standard for Packaging Recycling Marks GB 18455-2001 and SJ/T 11364-2014.
- 8.6.5 Requirements in South Korea:** Article 14 of the "Act on the Promotion of Saving and Recycling Resources" requires that all foam packaging components used as cushioning materials for electronic equipment in Korea be marked with a "separate discharge" mark. The mark facilitates the separation of products and packaging for recycling. Exemptions include: packaging and packaging component materials with a surface area of 50 cm<sup>2</sup> or less; containers with components weighing 30 grams or less; and packaging and packaging component materials whose nature and structure impede printing, engraving or labeling on the material.
- 8.6.6 Requirements in Australia:** Kodak Alaris is a signatory to the Australian Packaging Covenant (APC). We require our suppliers to review the Key Performance Indicator KPI 1 in the Sustainable Packaging Guidelines (SPGs) Streamlined Template given in Appendix H of this DF.

## 9.0 [Appendix](#)

### [Appendix A – Electrotechnical Product: Restricted Materials](#)

SUBSTANCE / CATEGORY	REPORTABLE APPLICATION	THRESHOLD LEVEL
<p>Substances listed in <b>IEC 62474</b> “Declarable substance groups and declarable substances” and “Reference substances” lists, located at <a href="http://std.iec.ch/iec62474/iec62474.nsf/MainFrameset">http://std.iec.ch/iec62474/iec62474.nsf/MainFrameset</a></p> <p>Follow the web address and select on the left hand side of the screen:</p> <p>“Declarable substance groups and declarable substances” to obtain the list of restricted Substance/Groups</p> <p>“Reference substances” to obtain expanded chemical lists with available Chemical Abstract Services (CAS) numbers</p>	All	As identified in IEC 62474

## Appendix B – Articles: Restricted Materials

SUBSTANCE / CATEGORY	REPORTABLE APPLICATION	THRESHOLD LEVEL
<p>Substances listed in IEC 62474 “Declarable substance groups and declarable substances” and “Reference substances” lists, located at <a href="http://std.iec.ch/iec62474/iec62474.nsf/MainFrameset">http://std.iec.ch/iec62474/iec62474.nsf/MainFrameset</a></p> <p>Follow the web address and select on the left hand side of the screen:</p> <p>“Declarable substance groups and declarable substances” to obtain the list of restricted Substance/Groups</p> <p>“Reference substances” to obtain expanded chemical lists with available Chemical Abstract Services (CAS) numbers</p>	<p>All</p> <p>Since articles are often in scope of Electrotechnical applications, suppliers should identify when a material on this list is intentionally added or known to be present in any article</p>	<p>Intentionally added or Known to be Present above 0.1% by weight (1000 ppm)</p>
<p><b>Known, Probable or Suspected Carcinogens, Mutagens and Reproductive Toxicants:</b> Materials that are included on the following regulatory lists:</p> <ol style="list-style-type: none"> <li>1. Known human carcinogens:               <ol style="list-style-type: none"> <li>a. IARC 1;</li> <li>b. ACGIH A1;</li> <li>c. NTP “known to be human carcinogen”</li> </ol> </li> <li>2. Suspected to be carcinogens:               <ol style="list-style-type: none"> <li>a. IARC 2A;</li> <li>b. ACGIH A2;</li> <li>c. NTP “reasonably anticipated to be a carcinogen”</li> </ol> </li> <li>3. 13 OSHA carcinogens</li> <li>4. Carcinogen, Mutagen, Reproductive Toxicant (CMR):               <ol style="list-style-type: none"> <li>a. GHS category 1A, 1B &amp; 2;</li> <li>b. EU category 1 &amp; 2A</li> </ol> </li> <li>5. CERHR classification "Serious concern" and "Concern" for adverse reproductive effects</li> <li>6. CA Proposition 65 list of reproductive/developmental toxicants and carcinogens (in consideration with other agency lists, not as a sole determinant)</li> <li>7. TSCA Chemicals of Concern categories</li> </ol>	<p>All</p>	<p>Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)</p>
<p><b>Other Health Concerns:</b> Materials that are known to cause irreversible significant adverse effects in humans or are strongly presumed to have the potential to cause such effects by relevant routes of exposure (other than carcinogens, mutagens and reproductive toxicants), which are defined as any substance that is included on the following regulatory lists:</p> <ol style="list-style-type: none"> <li>1. TSCA Chemicals of Concern</li> <li>2. GHS criteria: TOST category 1 and 2</li> <li>3. REACH criteria: STOT (Specific Target Organ Toxicity) category 1 and 2</li> </ol>	<p>All</p>	<p>Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)</p>
<p><b>Environmental Concerns:</b> Materials that meet the criteria for being persistent, bioaccumulative, and toxic (PBT), very persistent and very bioaccumulative (vPvB), or a persistent organic pollutant (POP) as defined by regulatory agencies, e.g., USEPA Sustainable Futures Guidance, European Union REACH Directive - OR -</p> <p>Materials with high aquatic toxicity, i.e., acute LC/EC50 values ≤ 1 mg/L, to the environment</p>	<p>All</p>	<p>Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)</p>
<p><b>Potent Sensitizers:</b> Materials that are known human sensitizers, which produce sensitization at low exposure levels.</p>	<p>Acrylate monomers, acrylate laminations or overcoats, products containing cross-linkers, hardeners or preservatives</p>	<p>Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)</p>
<p><b><sup>1</sup>Perfluorooctane sulfonate (PFOS), PFOS-related substances</b> (C8F17SO2X where X = OH, metal salt, halide, amide, and other derivatives including polymers), perfluorooctanoic acid (PFOA), or PFOA salts.</p>	<p>All</p>	<p>Intentionally Added or Known to be present as an impurity</p>
<p><b><sup>1</sup>Polyvinyl Chloride (PVC) Polyvinylidene dichloride (PVDC)</b></p>	<p>All</p>	<p>Use in manufacturing 0.1% by weight (1000 ppm)</p>

<sup>1</sup> See [Appendix E](#) for expanded chemical lists with available Chemical Abstract Services (CAS) numbers.

## Appendix C – Chemicals: Restricted Materials

CATEGORIES	REPORTABLE APPLICATION	THRESHOLD LEVEL
<p><b>Known, Probable or Suspected Carcinogens, Mutagens and Reproductive Toxicants:</b> Materials that are included on the following regulatory lists:</p> <ol style="list-style-type: none"> <li>Known human carcinogens: <ol style="list-style-type: none"> <li>IARC 1;</li> <li>ACGIH A1;</li> <li>NTP “known to be human carcinogen”</li> </ol> </li> <li>Suspected to be carcinogens: <ol style="list-style-type: none"> <li>IARC 2A;</li> <li>ACGIH A2;</li> <li>NTP “reasonably anticipated to be a carcinogen”</li> </ol> </li> <li>13 OSHA carcinogens</li> <li>Carcinogen, Mutagen, Reproductive Toxicant (CMR): <ol style="list-style-type: none"> <li>GHS category 1A, 1B, &amp; 2;</li> <li>EU category 1 &amp; 2A</li> </ol> </li> <li>CERHR classification "Serious concern" and "Concern" for adverse reproductive effects</li> <li>CA Proposition 65 list of reproductive/developmental toxicants and carcinogens (in consideration with other agency lists, not as a sole determinant)</li> <li>TSCA Chemicals of Concern categories</li> </ol>	All	Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)
<p><b>Other Health Concerns:</b> Materials that are known to cause irreversible significant adverse effects in humans or are strongly presumed to have the potential to cause such effects by relevant routes of exposure (other than carcinogens, mutagens and reproductive toxicants), which are defined as any substance that is included on the following regulatory lists:</p> <ol style="list-style-type: none"> <li>TSCA Chemicals of Concern</li> <li>GHS criteria: TOST category 1 and 2</li> <li>REACH criteria: STOT (Specific Target Organ Toxicity) category 1 and 2</li> </ol>	All	Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)
<p><b>Environmental Concerns:</b> Materials that meet the criteria for being persistent, bioaccumulative, and toxic (PBT), very persistent and very bioaccumulative (vPvB), or a persistent organic pollutant (POP) as defined by regulatory agencies, e.g., USEPA Sustainable Futures Guidance, European Union REACH Directive</p> <p>- OR -</p> <p>Materials with high aquatic toxicity, i.e., acute LC/EC50 values ≤ 1 mg/L, to the environment</p>	All	Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)
<p><b>Potent Sensitizers:</b> Materials that are known human sensitizers, which produce sensitization at low exposure levels.</p>	All	Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)
<p><b>Substances restricted by ANNEX XVII of REACH</b> Regulation (EC) No 1907/2006</p>	All	Intentionally Added or Known to be Present above 0.1% by weight (1000 ppm)
<p><b>Ozone Depleting Substances</b> [see <a href="#">Appendix E</a> for expanded chemical lists with available Chemical Abstract Services (CAS) numbers]</p>	All	Intentionally added Use in manufacturing
<p><b>Perfluorooctane sulfonate (PFOS), PFOS-related substances</b> (C8F17SO2X where X = OH, metal salt, halide, amide, and other derivatives including polymers), perfluorooctanoic acid (PFOA), or PFOA salts.</p>	All	Intentionally Added or Known to be present as an impurity Use in manufacturing

## Appendix D – Packaging: Restricted Materials

See [Appendix E](#) for expanded chemical lists with available Chemical Abstract Services (CAS) numbers.

SUBSTANCE / CATEGORY	REPORTABLE APPLICATION	THRESHOLD LEVEL
Arsenic/Arsenic compounds	All	Intentionally added
Asbestos	All	Intentionally added
Azo Colorants and azodyes which form certain aromatic amines (refer to <a href="#">Appendix E</a> for the list of specific amines)	Textiles and leather	30 ppm
Dibutyl tin (DBT) compounds	All	0.1% by weight of tin (1000 ppm)
Dioctyltin (DOT) compounds	Textiles	0.1% by weight of tin (1000 ppm)
Dimethyl fumarate	All	0.00001% by weight (0.1 ppm) of the packaging item
Heavy Metals: Cadmium/Cadmium Compounds Hexavalent Chromium/Hexavalent Chromium Compounds (Cr+6) Lead/Lead Compounds Mercury/Mercury Compounds	Package or individual packaging component	Intentionally added  The total concentration of these heavy metals cannot exceed 100 ppm.
Formaldehyde	Textiles	0.0075% by weight (75 ppm) of textile item
Methyl bromide	Fumigation of wood pallets in EU	Intentionally added
Ozone Depleting Substances	All	Intentionally added Use in manufacturing
Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)	All	Intentionally added
Polychlorinated biphenyls (PCBs) and specific substitutes	All	Intentionally added
Polychlorinated naphthalenes (more than 3 chlorine atoms)	All	Intentionally added
Polychlorinated terphenyls (PCTs)	All	Intentionally added
Polyvinyl Chloride (PVC) and Polyvinylidene dichloride (PVDC)	All	Intentionally added
Tri-substituted organostannic compounds	All	Intentionally added or 0.1% by weight (1000 ppm) of the packaging item

## Appendix E – Expanded chemical lists with Chemical Abstract Services (CAS) numbers

These lists are not comprehensive; they represent examples of chemicals listing CAS numbers and/or EC numbers if applicable or available. In case the list is complete (and the reporting requirement is limited to those substances listed) this is indicated in a note below the respective substance category.

**TABLE - Asbestos**

Asbestos	CAS Numbers
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 - Azocolorants and azodyes which form certain aromatic amines**

Aromatic Amines	CAS Numbers
Biphenyl-4-ylamine	92-67-1
Benzidine	92-87-5
4-chloro-o-toluidine	95-69-2
2-naphthylamine	91-59-8
o-aminoazotoluene	97-56-3
5-nitro-o-toluidine	99-55-8
4-chloroaniline	106-47-8
4-methoxy-m-phenylenediamine	615-05-4
4,4'-methylenedianiline	101-77-9
3,3'-dichlorobenzidine	91-94-1
3,3'-dimethoxybenzidine	119-90-4
3,3'-dimethylbenzidine	119-93-7
4,4'-methylenedi-o-toluidine	838-88-0
6-methoxy-m-toluidine	120-71-8
4,4'-methylene-bis(2-chloroaniline)	101-14-4
4,4'-oxydianiline	101-80-4
4,4'-thiodianiline	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

Note: The European Community's ban applies to azocolorants and azodyes that by reductive cleavage of azo groups may release one of the above 22 aromatic amines.

**TABLE - Dibutyltin Compounds (DBT)**

Dibutyltin Compounds	CAS Numbers
Dibutyltin oxide	818-08-6
Dibutyltin diacetate	1067-33-0
Dibutyltin dilaurate	77-58-7
Dibutyltin maleate	78-04-6
Other dibutyltin compounds	-

**TABLE - Dioctyltin Compounds (DOT)**

Dioctyltin Compounds	CAS Numbers
Dioctyl Tin Oxide	870-08-6
Dioctyltin dilaurate	3648-18-8
Other Dioctyltin compounds	-

**TABLE - Ozone Depleting Substances**

Chlorofluorocarbons (CFC), Halons, Hydrobromofluorocarbons (HBFC),  
Hydrochlorofluorocarbons (HCFC) and others

Ozone Depleting Substances	CAS Numbers
Trichlorofluoromethane (CFC-11)	75-69-4
Dichlorodifluoromethane (CFC-12)	75-71-8
Chlorotrifluoromethane (CFC-13)	75-72-9
Pentachlorofluoroethane (CFC-111)	354-56-3
Tetrachlorodifluoroethane (CFC-112)	76-12-0
1,1,2,2-Tetrachloro-1,2-difluoroethane (CFC-112)	76-12-0
1,1,1,2-Tetrachloro-2,2-difluoroethane (CFC-112a)	76-11-9
Trichlorotrifluoroethane (CFC-113)	76-13-1,
1,1,2-Trichloro-1,2,2 trifluoroethane (CFC-113)	76-13-1
1,1,1-Trichloro-2,2,2 trifluoroethane (CFC-113a)	354-58-5
Dichlorotetrafluoroethane (CFC-114)	76-14-2
Monochloropentafluoroethane (CFC-115)	76-15-3
Heptachlorofluoropropane (CFC-211)	422-78-6
	135401-87-5
1,1,1,2,2,3,3-Heptachloro-3-fluoropropane (CFC-211aa)	422-78-6
1,1,1,2,3,3,3-Heptachloro-2-fluoropropane (CFC-211ba)	422-81-1
Hexachlorodifluoropropane (CFC-212)	3182-26-1
Pentachlorotrifluoropropane (CFC-213)	2354-06-5
	134237-31-3
Tetrachlorotetrafluoropropane (CFC-214)	29255-31-0
1,2,2,3-Tetrachloro-1,1,3,3-tetrafluoropropane (CFC-214aa)	2268-46-4
1,1,1,3-Tetrachloro-2,2,3,3-tetrafluoropropane (CFC-214cb)	-
Trichloropentafluoropropane (CFC-215)	1599-41-3
1,2,2-Trichloropentafluoropropane (CFC-215aa)	1599-41-3
1,2,3-Trichloropentafluoropropane (CFC-215ba)	76-17-5
1,1,2-Trichloropentafluoropropane (CFC-215bb)	-
1,1,3-Trichloropentafluoropropane (CFC-215ca)	-
1,1,1-Trichloropentafluoropropane (CFC-215cb)	4259-43-2
Dichlorohexafluoropropane (CFC-216)	661-97-2
Chloroheptafluoropropane (CFC-217)	422-86-6
Bromochloromethane (Halon-1011)	74-97-5
Dibromodifluoromethane (Halon-1202)	75-61-6
Bromochlorodifluoromethane (Halon-1211)	353-59-3
Bromotrifluoromethane (Halon-1301)	75-63-8
Dibromotetrafluoroethane (Halon-2402)	124-73-2
Tetrachloromethane (carbon tetrachloride)	56-23-5
1,1,1-Trichloroethane (methylchloroform)	71-55-6
Bromomethane (methyl bromide)	74-83-9
Bromoethane (ethyl bromide)	74-96-4

Ozone Depleting Substances	CAS Numbers
1-Bromopropane (n-propyl bromide)	106-94-5
Trifluoroiodomethane (trifluoromethyl iodide)	2314-97-8
Chloromethane (methyl chloride)	74-87-3
Dibromofluoromethane (HBFC-21 B2)	1868-53-7
Bromodifluoromethane (HBFC-22 B1)	1511-62-2
Bromofluoromethane (HBFC-31 B1)	373-52-4
Tetrabromofluoroethane (HBFC-121 B4)	306-80-9
Tribromodifluoroethane (HBFC-122 B3)	-
Dibromotrifluoroethane (HBFC-123 B2)	354-04-1
Bromotetrafluoroethane (HBFC-124 B1)	124-72-1
Tribromofluoroethane (HBFC-131 B3)	-
Dibromodifluoroethane (HBFC-132 B2)	75-82-1
Bromotrifluoroethane (HBFC-133 B1)	421-06-7
Dibromofluoroethane (HBFC-141 B2)	358-97-4
Bromodifluoroethane (HBFC-142 B1)	420-47-3
Bromofluoroethane (HBFC-151 B1)	762-49-2
Hexabromofluoropropane (HBFC-221 B6)	-
Pentabromodifluoropropane (HBFC-222 B5)	-
Tetrabromotrifluoropropane (HBFC-223 B4)	-
Tribromotetrafluoropropane (HBFC-224 B3)	-
Dibromopentafluoropropane (HBFC-225 B2)	431-78-7
Bromohexafluoropropane (HBFC-226 B1)	2252-78-0
Pentabromofluoropropane (HBFC-231 B5)	-
Tetrabromodifluoropropane (HBFC-232 B4)	-
Tribromotrifluoropropane (HBFC-233 B3)	-
Dibromotetrafluoropropane (HBFC-234 B2)	-
Bromopentafluoropropane (HBFC-235 B1)	460-88-8
Tetrabromofluoropropane (HBFC-241 B4)	-
Tribromodifluoropropane (HBFC-242 B3)	70192-80-2
Dibromotrifluoropropane (HBFC-243 B2)	431-21-0
Bromotetrafluoropropane (HBFC-244 B1)	679-84-5
Tribromofluoropropane (HBFC-251 B3)	75372-14-4
Dibromodifluoropropane (HBFC-252 B2)	460-25-3
Bromotrifluoropropane (HBFC-253 B1)	421-46-5
Dibromofluoropropane (HBFC-261 B2)	51584-26-0
Bromodifluoropropane (HBFC-262 B1)	-
Bromofluoropropane (HBFC-271 B1)	1871-72-3
Dichlorofluoromethane (HCFC-21)	75-43-4
Chlorodifluoromethane (HCFC-22)	75-45-6
Chlorofluoromethane (HCFC-31)	593-70-4
Tetrachlorofluoroethane (HCFC-121)	134237-32-4
1,1,2,2-Tetrachloro-1-fluoroethane (HCFC-121)	354-14-3
1,1,1,2-Tetrachloro-2-fluoroethane (HCFC-121a)	354-11-0
Trichlorodifluoroethane (HCFC-122)	41834-16-6
1,2,2-Trichloro-1,1-difluoroethane (HCFC-122)	354-21-2
1,1,2-Trichloro-1,2-difluoroethane (HCFC-122a)	354-15-4
1,1,1-Trichloro-2,2-difluoroethane (HCFC-122b)	354-12-1
Dichlorotrifluoroethane(HCFC-123)	34077-87-7
1,1-Dichloro-2,2,2-trifluoroethane (HCFC-123)	306-83-2
1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)	354-23-4
	90454-18-5
1,1-Dichloro-1,2,2-trifluoroethane (HCFC-123b)	812-04-4
Chlorotetrafluoroethane (HCFC-124)	63938-10-3



Ozone Depleting Substances	CAS Numbers
2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	2837-89-0
1-chloro-1,1,2,2-tetrafluoroethane (HCFC-124a)	354-25-6
Trichlorofluoroethane (HCFC-131)	27154-33-2; (134237-34-6)
1,1,2-Trichloro-2-fluoroethane (HCFC-131)	359-28-4
1,1,2-Trichloro-1-fluoroethane (HCFC131a)	811-95-0
1,1,1-Trichloro-2-fluoroethane (HCFC-131b)	2366-36-1
Dichlorodifluoroethane (HCFC-132)	25915-78-0
1,2-Dichloro-1,2-difluoroethane (HCFC-132)	431-06-1
1,1-Dichloro-2,2-difluoroethane (HCFC-132a)	471-43-2
1,2-Dichloro-1,1-difluoroethane (HCFC-132b)	1649-08-7
1,1-Dichloro-1,2-difluoroethane (HCFC-132c)	1842-05-3
Chlorotrifluoroethane (HCFC-133)	1330-45-6
1-Chloro-1,2,2-trifluoroethane (HCFC-133)	431-07-2 1330-45-6
2-Chloro-1,1,1-trifluoroethane (HCFC-133a)	75-88-7
1-Chloro-1,1,2-trifluoroethane (HCFC-133b)	421-04-5
Dichlorofluoroethane(HCFC-141)	1717-00-6; (25167-88-8)
1,2-Dichloro-1-fluoroethane (HCFC-141)	430-57-9
1,1-Dichloro-2-fluoroethane (HCFC-141a)	430-53-5
1,1-Dichloro-1-fluoroethane (HCFC-141b)	1717-00-6
Chlorodifluoroethane (HCFC-142)	25497-29-4
2-Chloro-1,1-Difluoroethane (HCFC-142)	338-65-8
1-Chloro-1,1-difluoroethane (HCFC-142b)	75-68-3
1-Chloro-1,2-difluoroethane (HCFC-142a)	338-64-7
Chlorofluoroethane (HCFC-151)	110587-14-9
1-Chloro-2-fluoroethane (HCFC-151)	762-50-5
1-Chloro-1-fluoroethane (HCFC-151a)	1615-75-4
Hexachlorofluoropropane (HCFC-221)	134237-35-7 29470-94-8
1,1,1,2,2,3-Hexachloro-3-fluoropropane (HCFC-221ab)	422-26-4
Pentachlorodifluoropropane (HCFC-222)	134237-36-8
1,1,1,3,3-pentachloro-2,2-difluoropropane (HCFC-222ca))	422-49-1
1,2,2,3,3-pentachloro-1,1-difluoropropane (HCFC-222aa)	422-30-0
Tetrachlorotrifluoropropane (HCFC-223)	134237-37-9
1,1,3,3-Tetrachloro-1,2,2-trifluoropropane (HCFC-223ca)	422-52-6
1,1,1,3-Tetrachloro-2,2,3-trifluoropropane (HCFC-223cb)	422-50-4
Trichlorotetrafluoropropane (HCFC-224)	134237-38-0
1,3,3-Trichloro-1,1,2,2-tetrafluoropropane (HCFC-224ca)	422-54-8
1,1,3-Trichloro-1,2,2,3-tetrafluoropropane (HCFC-224cb)	422-53-7
1,1,1-Trichloro-2,2,3,3-tetrafluoropropane (HCFC-224cc)	422-51-7
Dichloropentafluoropropane (HCFC-225)	127564-92-5
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
2-Chloro-1,1,1,3,3,3-hexafluoro-propane (HCFC-226da)	431-87-8
Pentachlorofluoropropane (HCFC-231) 1,1,1,2,3-pentachloro-2-fluoro-propane (HCFC-231bb)	134190-48-0 421-94-3

Ozone Depleting Substances	CAS Numbers
Tetrachlorodifluoropropane (HCFC-232) 1,1,1,3-Tetrachloro-3,3-difluoropropane (HCFC-232fc)	134237-39-1 460-89-9
Trichlorotrifluoropropane (HCFC-233) 1,1,1-Trichloro-3,3,3-trifluoropropane (HCFC-233fb)	134237-40-4 7125-83-9
Dichlorotetrafluoropropane (HCFC-234) 1,2-Dichloro-1,2,3,3-tetrafluoropropane (HCFC-234db)	127564-83-4 425-94-5
Chloropentafluoropropane (HCFC-235) 1-Chloro-1,1,3,3,3-pentafluoropropane (HCFC-235fa)	134237-41-5 460-92-4
Tetrachlorofluoropropane (HCFC-241) 1,1,2,3-Tetrachloro-1-fluoropropane (HCFC-241db)	134190-49-1 666-27-3
Trichlorodifluoropropane (HCFC-242) 1,3,3,Trichloro-1,1-difluoropropane (HCFC-242fa)	134237-42-6 460-63-9
Dichlorotrifluoropropane (HCFC-243) 1,1-Dichloro-1,2,2-trifluoropropane (HCFC-243cc) 2,3-Dichloro-1,1,1-trifluoropropane (HCFC-243db) 3,3-Dichloro-1,1,1-trifluoropropane (HCFC-243fa)	134237-43-7 7125-99-7 338-75-0 460-69-5
Chlorotetrafluoropropane (HCFC-244) 3-Chloro-1,1,2,2-tetrafluoropropane (HCFC-244ca) 1-Chloro-1,1,2,2-tetrafluoropropane (HCFC-244cc)	134190-50-4 679-85-6 421-75-0
Trichlorofluoropropane (HCFC-251) 1,1,3-Trichloro-1-fluoropropane (HCFC-251fb) 1,1,2-Trichloro-1-fluoropropane (HCFC-251dc)	134190-51-5 818-99-5 421-41-0
Dichlorodifluoropropane (HCFC-252) 1,3-Dicloro-1,1-difluoropropane (HCFC-252fb)	134190-52-6 819-00-1
Chlorotrifluoropropane (HCFC-253) 3-Chloro-1,1,1-trifluoropropane (HCFC-253fb)	134237-44-8 460-35-5
Dichlorofluoropropane (HCFC-261) 1,1-Dichloro-1-fluoropropane (HCFC-261fc) 1,2-Dichloro-2-fluoro-propene (HCFC-261ba)	134237-45-9 7799-56-6 420-97-3
Chlorodifluoropropane (HCFC-262) 1-Chloro-2,2-difluoropropane (HCFC-262ca) 2-Chloro-1,3-difluoropropane (HCFC-262da)	134190-53-7 420-99-5 102738-79-4
1-Chloro-1,1-difluoropropane (HCFC-262fc)	421-02-03
Chlorofluoropropane (HCFC-271) 2-Chloro-2-fluoropropane (HCFC-271ba) 1-Chloro-1-fluoropropane (HCFC-271fb)	134190-54-8 420-44-0 430-55-7

Note: These substances may contain further isomers that are not listed here. Isomers with CAS numbers have been included when available.

**TABLE - Perfluorooctane sulfonate (PFOS), PFOS-related substances**

Perfluorooctane sulfonate (PFOS), PFOS-related substances	CAS Numbers
C <sub>8</sub> F <sub>17</sub> SO <sub>2</sub> X where X = OH, metal salt, halide, amide, and other derivatives including polymers	-
Compounds that contain one of the following groups C <sub>8</sub> F <sub>17</sub> SO <sub>2</sub> , C <sub>8</sub> F <sub>17</sub> SO <sub>3</sub> or C <sub>8</sub> F <sub>17</sub> SO <sub>2</sub> N	-

**TABLE - Polychlorinated Biphenyls (PCBs) and specific substitutes**

Polychlorinated Biphenyls (PCBs)	CAS Numbers
Polychlorinated Biphenyls (all isomers and congeners)	1336-36-3
Monomethyl-tetrachloro-diphenyl methane (Ugilec 141)	76253-60-6
Monomethyl-dichloro-diphenyl methane (Ugilec 121, Ugilec 21)	81161-70-8
Monomethyl-dibromo-diphenyl methane (DBBT)	99688-47-8

**TABLE - Polychlorinated Terphenyls (PCTs)**

Polychlorinated Terphenyls (PCTs)	CAS Numbers
Polychlorinated Terphenyls (all isomers and congeners)	61788-33-8

**TABLE - Polychlorinated Naphthalenes**

Polychlorinated Naphthalenes	CAS Numbers
Polychlorinated Naphthalenes	70776-03-3
Other polychlorinated Naphthalenes	-

**TABLE - (PVC) Polyvinyl Chloride**

Polyvinyl Chloride	CAS Numbers
Polyvinyl chloride (PVC)	9002-86-2
Polyvinylidene dichloride (PVDC)	9002-85-1
Other Polyvinyl chlorides	-
PVC Copolymers	-

**TABLE - Tri-substituted Organostannic Compounds**

Tri-substituted Organostannic Compounds	CAS Numbers
Triphenyltin-N, N-dimethyldithiocarbamate	1803-12-9
Triphenyltinfluoride	379-52-2
Triphenyltinacetate	900-95-8
Triphenyltinchloride	639-58-7
Triphenyltinhydroxide	76-87-9
Triphenyltin fattyacid((9-11)salt)	18380-71-7 18380-72-8 47672-31-1 94850-90-5
Triphenyltinchloroacetate	7094-94-2
Tributyltinmethacrylate	2155-70-6
Bis(tributyltin)fumalate	6454-35-9
Tributyltinfluoride	1983-10-4
Bis(tributyltin)2,3-dibromosuccinate	31732-71-5
Tributyltinacetate	56-36-0
Tributyltinlaurate	3090-36-6
Bis(tributyltin)phthalate	4782-29-0
Copolymer of alkyl(c=8) acrylate, methyl methacrylate and tributyltin methacrylate	67772-01-4
Tributyltinsulfamate	6517-25-5
Bis(tributyltin)maleate	14275-57-1
Tributyltinchloride	1461-22-9 7342-38-3
Tributyltin cyclopentane carbonate = mixture	85409-17-2
Tributyltin-1,2,3,4,4a,4b,5,6,10,10a-decahydro-7-isopropyl-1,4a-dimethyl-1-phenanthrenecarboxylatemix	26239-64-5
Other tri-substituted organostannic compounds	-

## Appendix F – Safety Traceability Requirements for Critical Components

Description	Plastic & Foam	Wire Harness	Circuit Boards	Safety Label
<b>Requirements</b>	Materials shall be identifiable to safety agency inspectors.	Shall be identifiable as having been produced under the UL Recognized Wire Harness Manufacturer's Program and CSA Certified Wire Harness Program.	Shall be identifiable as having been produced under the UL Recognized Component Printed Wiring Program.	Shall be identifiable as having been produced under the UL and CSA Marking and Labeling System approval programs.
<b>Required Information from supplier with each shipment</b>	<ol style="list-style-type: none"> <li>1. Molder name</li> <li>2. Kodak Alaris part number</li> <li>3. Raw material manufacturer name</li> <li>4. Plastic manufacturer type designation (e.g., "Cycoloy C6200")</li> <li>5. Month and year molded</li> <li>6. UL Recognized Molder program number, if applicable</li> </ol> <p>In addition, for parts with metallic (EMI) coating, identify the applicator, the process used and the metallic (EMI) coating material used.</p>	Wire Harness label on the shipping container or on each harness	Mark parts according to UL Printed Wiring Program (e.g. Manufacturer's name or trademark and board type.)	Manufacturer's identity (e.g., name or trademark) and manufacturer's label type (e.g. Type 123).
<b>Acceptable methods to provide traceability to Kodak</b>	<ul style="list-style-type: none"> <li>·Molded on each part or</li> <li>·"Stuffer sheet" containing the 6 items above in the smallest shipping container or</li> <li>·Label on every shipping container stating the 6 items above.</li> </ul>	<ul style="list-style-type: none"> <li>·Label on each harness</li> <li>·Label the smallest deliverable package.</li> <li>·Label the shipping box for the harnesses contained in the box.</li> </ul>	Mark parts according to UL Printed Wiring Program requirements.	<ul style="list-style-type: none"> <li>·For CSA approved labels, place identifier on each label.</li> <li>·For UL approved labels, place the identifier on each label or smallest delivered package.</li> </ul>
<b>Related supplier safety expectations</b>	Parts will be produced under the UL Recognized Fabricated Parts Program.	Harnesses will be produced under the UL Recognized Wiring Harness Manufacturer program and be CSA Certified.	Parts will be produced under the UL Recognized Printed Wiring Board program.	Safety labels will be approved to UL/CSA "Marking and Labeling System" requirements.

## Appendix G – Product Safety and EMC References

The table below includes references to international regulations and standards regarding Product Safety and Electromagnetic Compatibility (EMC). This is not a complete list of requirements. It is provided to indicate some common regulatory requirements impacting Kodak Alaris products. The Product Requirements Document (PRD) for specific products may contain additional requirements. Suppliers are expected to meet all equipment regulatory requirements for the specified markets on which the equipment will be placed.

Market	Regulation/Standard	Title	Type
International CB Scheme	IEC 60950-1 or 62368-1	Safety of Information Technology Equipment	Safety
EU/EFTA	2014/35/EU	Low Voltage Directive	Safety
EU/EFTA	EN 60950-1 or 62368-1	Safety of Information Technology Equipment	Safety
EU/EFTA	EN 62471	Photobiological Safety of Lamps and Lamp Systems	Safety
EU/EFTA	EN 60825-1	Safety of laser products	Safety
Canada	CSA 22.2 No. 60950-1	Safety – Information Technology Equipment	Safety
Russia	Eurasian Low Voltage Directive	Technical requirement similar to EU, requires EAC Certifications	Safety
EU/EFTA	EN 55032	Information technology equipment. Radio disturbance characteristics. Limits and methods of measurement	EMC
EU/EFTA	EN 55024 or 55035 (when available)	Information technology equipment. Immunity characteristics. Limits and methods of measurement	EMC
United States	FCC CFR 47 Part 15	Telecommunications – Radio Frequency Device – Intentional, Unintentional and Incidental Radiators	EMC
Canada	ICES-003	ITE – Limits and Measurement Methods	EMC
Korea	KN32 (CISPR 32)	EU standards tested at Korean line voltage and frequency	EMC
Korea	KN35 (CISPR 35)	EU standards tested at Korean line voltage and frequency	EMC
Australia	Radio Communications Act 1992	Compliance with EU standards and Australian RMC marking requirements	EMC
Russia	Eurasian EMC Directive	Technical requirement similar to EU, requires EAC Certifications	EMC

## **Appendix H – Packaging References**

### **European Parliament and Council Directive 96/62/EC on Packaging and Packaging Waste** (as amended)

Further information can be obtained at:

[http://europa.eu/legislation\\_summaries/environment/waste\\_management/l21207\\_en.htm](http://europa.eu/legislation_summaries/environment/waste_management/l21207_en.htm)

### **Plastic Packaging Materials**

Further Information on the SPI resin identification code can be obtained at:

<https://plastics.americanchemistry.com/Plastic-Resin-Codes-PDF/>

### **Wood Packaging Materials**

Approved treatment includes fumigation with methyl bromide or heat treatment (HT)—heated to a core temperature of 56 deg C (133 deg F) for 30 min. Kiln drying (KD) or chemical pressure impregnation (CPI) may be considered heat treatment to the extent that these meet the heat treatment specifications mentioned.

Treated solid wood packaging materials shall be marked with the International Plant Protection Convention (IPPC) logo, the ISO two-letter country code followed by a unique number assigned by the National Plant Protection Organization (NPPO) to the producer, and the IPPC approved abbreviation for the phytosanitary treatment measure used (e.g., HT and MB).

Recycled, remanufactured or repaired wood packaging material should be re-certified and re-marked. All components of such material should have been treated.

Further information may be obtained at <https://www.ippc.int/>.

### **Rigid Plastic Packaging Containers in the United States (8 fl. oz. – 5 gal.)**

**California** - All products sold in California will comply with one of the following requirements: 10% source reduction, 5 time reuse rate, 45% brand-specific container recycle rate or 25% post consumer content. (Exemptions include: Containers which have been manufactured according to UN Transportation guidelines or FIFRA guidelines for holding insecticides, medical devices, food, drug or cosmetics, toxic or hazardous products or are manufactured for use in the shipment of hazardous materials, where prohibited by federal law from being manufactured with "used materials" (i.e. post consumer resin).

Further information can be obtained at: <http://www.ciwm.ca.gov/regulations/title14/ch4a3a.htm>

**Oregon** - All products sold in Oregon will comply with one of the following requirements: source reduction (required every 5 years), 5 time reuse rate, 25% recycle rate or 25% post consumer content. (Exemptions include containers that have been manufactured according to UN Transportation guidelines or FIFRA guidelines for holding insecticides and medical devices.)

Further information can be obtained at [https://www.oregonlegislature.gov/bills\\_laws/ors/ors459A.html](https://www.oregonlegislature.gov/bills_laws/ors/ors459A.html) (Section 459A.650)

**Wisconsin** - All products sold in Wisconsin will contain 10% recycled content. (Exemptions include containers that have been manufactured according to UN Transportation guidelines or FIFRA guidelines for holding insecticides and medical devices.)

Further information can be obtained at <http://www.legis.state.wi.us/statutes/Stat0100.pdf>, (100.297 & 100.33).

### **European Council Directive 90/269/EEC on Manual Handling Requirements**

Further information can be found at:

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1990L0269:20070627:EN:PDF>

### **Korean Separate Discharge Mark**

Further information can be found at:

<http://www.keco.or.kr/kr/business/resource/contentsid/1564/index.do>

## Australian Packaging Covenant - Sustainable Packaging Guidelines

There are 4 key Principles our suppliers should consider in the design or procurement of packaging that Kodak Alaris will place on the market in Australia, to improve its sustainability. Further information may be found at [www.packagingcovenant.org.au](http://www.packagingcovenant.org.au)

- a) **Fit-for purpose:** Packaging should be designed to meet market and consumer needs, while minimising net impact in a cost-effective way.
- b) **Resource efficiency:** Packaging should be designed to minimise the use of materials and other resources without compromising product quality and safety.
- c) **Low-impact materials:** Packaging should be designed to minimise the environmental and social impact of materials and components. Materials should be selected on science and incorporate a whole-of-lifecycle approach.
- d) **Resource recovery:** Packaging should be designed to maximise its potential for recovery and recycling, and to minimise the environmental and social impacts of its disposal.

Each principle has several potential strategies our suppliers should review:

- a) Meet technical performance requirements: Minimise supply chain costs: Meet consumer needs and expectations, including for accessibility.
- b) Minimise materials: Use recycled materials: Minimise transport impacts: Maximise water and energy efficiency.
- c) Minimise risks associated with potentially toxic and hazardous materials: Use renewable or recyclable materials: Use materials from responsible suppliers.
- d) Design for reuse where appropriate: Design for recovery: Design for litter reduction: Inform consumers about appropriate disposal.

## Appendix I – Revision History

<b>Version</b>	<b>Section</b>	<b>Change</b>	<b>Date</b>
3	8	Addition of APC Requirements in Appendix H	Feb 26, 2018
2	All	General update of links and references	Aug. 17, 2017
1	All	Release of Kodak Alaris EHS Product Specification Document (Ver. 1.0)	Dec. 1, 2014

[\(back to top\)](#)