

RoHS POLICY STATEMENT

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RoHS Policy Statement

As a Distributor of electrical and electronic equipment Aerco maintain statements from the Original Equipment / Component Manufacturers concerning their products' conformance to RoHS.

Hence, Aerco are able to affirm RoHS compliance but are unable to complete individual questionnaires, spreadsheets and declarations of material composition although will supply copies manufacturers statements upon request.

Background

The Restriction of Hazardous Substances directive, RoHS, is EU Single Market Directive.

It was introduced under Directive 2002/95/EC, requiring implementation by 1st July 2006. It was then revised and re-issued under Directive 2011/65/EU (known as RoHS2), requiring implementation by 2nd January 2013. This in turn has been replaced by RoHS 3, which came into force on 22nd July 2019.

The intention of the RoHS directive is to reduce the amount of certain hazardous substances that find their way into the environment.

The directive states that any company manufacturing Electrical and Electronic Equipment that is subject to the Directive must ensure that those products do not contain more than the permitted amount of those substances listed in the RoHS directive.

Equipment subject to the directive includes household appliances, IT and telecommunications equipment, consumer equipment, lighting equipment, electrical and electronic tools, toys, leisure and sports equipment, automatic dispensers.

RoHS2 widened the scope of equipment covered to include medical and control equipment. There are exemptions and these are under constant review.

Note that military equipment, vehicles and similar major items are not included in the list of equipment that is subject to the directive.

The hazardous materials of concern are lead, cadmium, hexavalent chromium, mercury, polybromide biphenyl (PBB), polybromide diphenyl ethers (PBDE) and Decabromodiphenyl ether (Deca-BDE). Permitted levels are Cadmium <0.01% and the rest <0.1% by weight per homogenous material.

Companies that manufacture affected products are required to evaluate which of the components they currently use contain the prohibited substances. Even companies that do not manufacture affected products but are involved in general in manufacturing of electrical products, are taking steps to determine which of the components and sub-systems they buy contain those substances.

That brings us to the current 2015/863, or as it's better known, "RoHS 3." The most significant change to this iteration is the restriction of four additional phthalates – specifically, Bis(2-ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP), and Diisobutyl phthalate (DIBP). This latest amendment pertains to products placed on the market on or after July 22, 2019.

Distribution suppliers (such as Aerco) expect to be able to find out from the manufacturers the RoHS status of products they supplied and to advise their customers as needed. Therefore, Aerco needs to be in a position to know and inform.

There are two further complications, specifically concerning lead, as a result of the Directive: -

1.1 High temperature soldering

Soldering techniques in the past have used a solder that is over 50% lead, and this solder will be banned for the manufacture of affected products. The industry has developed new solders that contain little or no lead, but these solders require much higher temperatures to melt. This means that manufacturing equipment and processes such as flow-solder baths must operate at higher temperatures.

Many of the components used in electronics manufacturing contain plastics (e.g. in the bodies of pcb-mounted connectors, LEDs etc) Aerco needs to be able to advise customers if products we supply can withstand soldering at higher temperatures without being damaged.

1.2 Pure Tin plating and Tin Whiskers

Many electronic component manufacturers, aware of the forthcoming ban on lead, have developed new plating compounds to replace the tin/lead plating that is typically found on components that are designed to be soldered, such as the contacts on switches, relays, connectors etc.

A common choice has been to select pure tin, which is similar in cost and in manufacturing processes. However, it has been learned that a pure tin finish can grow “tin whiskers”, which are tiny filaments of tin that grow on the plating over time. These can cause short circuits between adjacent contacts, introducing unreliability into the manufactured product. This is not much of an issue with mobile phones etc but can be catastrophic in an aircraft or space vehicle.

Thus, manufacturers of such equipment (which is not subject to RoHS) cannot use products that contain pure tin plating. Aerco needs to be able to determine which products contain a pure tin plate.

1.3 Identification and differentiation between RoHS Compliant and non-compliant products.

Some component manufacturers have decided to eliminate all restricted substances from all of their products. Others have decided to continue to offer existing non-compliant components as an option while introducing compliant versions. Still others have elected not to amend their existing products.

Different component manufacturers around the world have chosen different ways of indicating which of their components are compliant with RoHS and which are not. Common methods include:

- Creating a new part number series for RoHS-compliant versions of their products.
- Not changing the part number but advising customers that any product bearing a date code later than a specified date is RoHS compliant, those before are not.
- Not changing the part number but putting a mark on the product (such as ~~pb~~ to indicate that it is lead-free).

Aerco Status

The legal responsibility for ensuring that end products that are subject to the Directive meet the regulations lies with the manufacturer of those products, where these are manufactured in the EU.

Where parts are manufactured outside of the EU then the legal responsibility rests with the importer of that product into the EU, i.e. if Aerco is purchasing and importing parts from sources outside the EU then the legal responsibility for establishing compliance rests with Aerco.

Customers are expected to be able to rely on suppliers such as Aerco to give them accurate information about RoHS compliance for the components we supply.

Aerco maintain statements of compliance for all the manufacturers whose products we supply and to clearly identify it as RoHS compliant or Non Compliant on part number, batch-by-batch basis.

Aerco need to ensure that staff are trained about the background, rules and implications described in this document

Aerco will provide information to the best of its knowledge based on the information provided by its suppliers and to provide copies of manufacturers statements upon request.