



January 2006

Subject: Iwaki America product compliance to EU RoHS Directive

Dear Valued Customer:

To understand the RoHS directive and its applicability to our products, a brief summary of the objectives of the legislation including equipment categories and restricted substance permissible levels is included for your review

The RoHS directive is one part of an ever increasing need to implement industry wide manufacturing processes that are consumer and environmentally friendly. As life cycles of electronics are shortened, and with the exponential growth of affordable electronic equipment, it was necessary that recycling and disposal issues be addressed by legislation. While legislation in the US is not widespread we recognize as a supplier to our customers who have global markets that this directive will influence the markets we serve.

The RoHS directive is targeted at the restriction of hazardous material used in electrical and electronic equipment. RoHS takes its scope from the related WEEE Directive. Annex IA lists the ten categories of equipment that fall within the scope of RoHS. They are as follows:

1. Large household appliances
2. Small household appliances
3. IT and telecommunications equipment
4. Consumer equipment
5. Lighting equipment
6. Electrical and electronic tools (with the exception of large-scale stationary industrial tools)
7. Toys, leisure and sports equipment
8. Medical devices (with the exception of all implanted and infected products)
9. Monitoring and control instruments
10. Automatic dispensers

Categories 8 & 9 are currently exempt from RoHS.



The hazardous substances and permissible levels are as follows (EU August 18, 2005):

Substance	Maximum Value	Exceptions
Lead (Pb)	0.1% (1000 ppm) or less	Pb in Alloys
Mercury (Hg)	0.1% (1000 ppm) or less	Compact Fluorescent lamps (not exceeding 5 mg/lamp)
Cadmium	0.01% (100 ppm) or less	
Hexavalent Chromium (Cr ₆)	0.1% (1000 ppm) or less	Anti-corrosion inhibitors for refrigerators
Polybrominated biphenyls (PBB)	0.1% (1000 ppm) or less	
Polybrominated diphenyl ethers (PDDE)	0.1% (1000 ppm) or less	

Notes:

- Maximum permissible levels as given above apply to homogenous materials. This means that the limits do not apply to the weight of the finished product, or even to a component, but to any single substance that could (theoretically) be separated mechanically. Examples of homogenous materials are; Plastics, ceramics, metal, alloy, paper, wood, resins, coatings, etc.

Lead Exceptions:

- Lead as an alloying element in steel containing up to 0,35 % lead by weight, aluminum containing up to 0.4 % lead by weight and as a copper alloy containing up to 4 % lead by weight.
- Lead in high melting temperature type solders (i.e. tin-lead solder alloys containing more than 85 % lead).
- Lead in electronic ceramic parts (e.g. piezoelectronic devices).

From RoHS Directive (2002/95/EC):

In general terms, RoHS does not apply to large-scale industrial tools, spare parts for the repair of equipment put on the market before 1 July 2006, equipment that forms part of another type of equipment that falls outside the scope, and equipment associated exclusively with national security.

You will note that pumps are not specifically identified on any of the general categories of Annex IA. We do however recognize that it is possible that equipment that our pumps are used in may fall under this directive. We have already begun a process to eliminate all lead based solder paste for our MD series (initiated in April 2005) motor designs and have confirmed several models of WMD motors that are already in compliance with the RoHS requirements.

