

Restriction of the use of Hazardous Substances

ITW Switches Statement



Directive 2002/95/EC (commonly referred to as RoHS), restricts the use of various substances in new products placed on to the market with effect from 01 July 2006 and ITW Switches, Switch Panels, McMurdo and Erg Components (hereafter referred to as ITW), will actively work to meet the requirements of the Directive by ensuring that all components marketed by ITW will be free of the banned substances as defined in the Directive.

ITW will, however, continue to market products containing the banned substances where there is a clear and specific customer requirement for the inclusion of such material. In this case the non compliant component will be identified by a unique part number.

Although ITW Switches may make a declaration as to the RoHS compliance of newly supplied product it must be understood that older product may be available through various supply sources and in such cases ITW cannot make declarations on behalf of such sources.

Banned Substances

The following are banned substance as defined by the Directive with their permitted Maximum Concentration Limits.

Lead (Pb)	0.1% by weight = 1000mg/kg = 1000 ppm
Mercury (Hg)	0.1% by weight = 1000mg/kg = 1000 ppm
Cadmium (Cd)	0.01% by weight = 100 mg/kg = 100 ppm
Hexavalent Chromium (Cr VI)	0.1% by weight = 1000mg/kg = 1000 ppm
PBBs and PBDEs	0.1% by weight = 1000mg/kg = 1000 ppm

These limit values will apply to each "homogenous material" within a component where the homogenous material is identified as being "a material that cannot be mechanically disjointed into other materials". As a minimum, the requirement for the measurement of Maximum Concentration Limits within a component must flow down to the source of the homogenous material and the data records of such must be retained by the source of the homogenous material for a minimum of four years following the sale of the product.

Achievement of Compliance to RoHS

ITW will not carry out laboratory analysis of materials to determine the presence or absence of banned substances. Compliance will be declared by in-house engineering investigation and supplier raw materials declarations.

Compliance declarations will only be made against the banned substances listed in 2002/95/EC and requests for investigations to determine the status of other substances that may or may not be present and are not listed by the Directive will be considered as being a request for an independent laboratory analysis, will incur an appropriate cost and will be actioned only on receipt of authorised Purchase Order from the requestor.

Compliant products will be listed either by product family or by unique part number on the appropriate website (www.itwswitches.co.uk, www.itwmcmurdo.co.uk or www.itwerg.co.uk). However, if specifically requested, ITW may issue a stand alone Certificate of Compliance against a part number or numbers.

Part Numbering

Directive 2002/95/EC does not demand renumbering or re-marking of compliant product in any way. ITW products have their unique range of part numbers and it is ITW Corporate policy not to make changes to the numbering to indicate RoHS compliance due to the fact that such changes would have a considerable impact on both internal and customers databases and documentation, However, if a part has dual usages (compliant and non compliant), the non compliant part will be identified by an appropriate part number change.

Marking of Compliant Product

Directive 2002/95/EC does not demand marking of compliant product, the action of placing a product on to the market after the implementation date is a presumption of compliance. However, to enable customers to sort compliant from non compliant product in the period leading up to implementation, ITW will use an adhesive label on lowest levels of packaging.

The label is as shown below and is green/green in colour and approximately 25 mm in diameter.

Components will not be individually marked.



As it is not a requirement decreed by the Directive, ITW do not subscribe to the requirements of either IPC-1066 or JEDEC, JESD97.

NonCompliant Products

ITW supports both COTS and bespoke products. In the case of bespoke products, customer's requirements will be ascertained and if a non compliant product is required then it will be supplied as such after first obtaining a suitable declaration to the effect from the customer. There will be no labels on non compliant products indicating non compliance.

Lead free solder: Compliance V Compatibility

Whilst ITW move to ensure that its products are compliant with directive 2002/95/EC, not all declared components will be compatible with the temperatures associated with solder alloys that do not contain lead. There is a range of lead free alloys for soldering, each with their own characteristics and ITW encourages its customers to use these solders, as recommended by the National Physical Laboratory (NPL, Teddington) or other national institution.

Tin-Silver-Copper (SnAgCu) solder alloy, would appear to be the nearest 'drop-in' replacement for Tin/Lead solder alloy, however, Tin-Silver-Copper has a melting point of 217°C, which is higher than the melting point of Tin / Lead (183°C). This increased temperature will have affects. It is therefore

recommended, before any production, tests are carried out to verify that the method of production used will not cause detrimental results. No Surface Mount Technology components are produced by ITW therefore any requirements specifically required for Reflow or Intrusive Reflow have not been considered. Likewise, no advice is offered concerning cleaning processes using aqueous or no-clean solder paste or wave solder flux. ITW therefore advise that pre-production testing is carried out to determine acceptability of product to process.

Future enhancements will be made to increase the temperature upper limits of ITW products, as and when technologies/materials become available.

Products containing solder

ITW's preferred solder is 95.5Sn/4.0Ag/0.5Cu and all components containing PWBs, tinning or other soldering operations are carried out using this style solder and it is therefore recommended that where attachment by soldering is required, for best results a similar solder is used.

Tin Whiskers

Owing to the fact that no recommendations for solder type has been made by ITW, it is not possible to offer information or advice regarding the so called "tin whiskers". ITW have not carried out any testing for the presence of tin whiskers on any of its products, however it would appear that Matte Tin plating offers the best defence against the phenomenon and therefore where tin plating is specified, Matte is preferred.

Sales Literature

As part of its longer term activities, ITW will in due course update all sales literature to indicate material changes that have occurred whilst complying with the RoHS requirements.

DOCUMENT No. 9940-101

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ANY AMENDMENTS SHALL CAUSE THIS SHEET TO BE RE-ISSUED.

Tel: +44 (0)1962 773004

Fax: +44 (0)1962 773104

sales@in2connect.uk.com

<www.in2connect.uk.com>