



## RoHS/REACH Compliance

International Manufacturing Services, Inc. (IMS) recognizes and supports the worldwide effort for environmental protection and conservation.

### REACH Regulation

REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) is a European Union Commission (EUC) Regulation on chemicals and their safe use (EC 1907/2006) entered into force on 01 June, 2007 and will be phased in until 2018.

- REACH applies to all imports to the EU
- There are three levels of interest defined by REACH:
  - Substances: Chemical elements and their compounds in the natural state, identifiable by CAS or EINECS number (Ex: metal)
  - Preparations: A combination or mixture of two or more substances (Ex.: ink, adhesive)
  - Article: An object whose special shape, surface or design determines its function to a greater degree than does its chemical composition; assembled products (Ex: cars, electronic components)
- The REACH regulation focuses on the control of Substances of Very High Concern (SVHCs) published in accordance with Article 59 of the REACH regulation
- SVHCs are relevant to Substances and Preparations, not Articles
- Registration of SVHCs is required for Substances and Preparations, not Articles
- Notification and communication is required for Articles under the following conditions:
  - The Article has an “intended release” of SVHC
  - SVHC content > 0.1% of Total Article Weight

Products manufactured and supplied by IMS are “articles” as defined by the REACH regulation and do not release substances under their normal use. The diboron trioxide and lead oxide present in certain products supplied by IMS are an element of the glass material. The glass is a UVCB substance (substance of unknown or variable composition, Complex reaction products or biological materials) under the REACH regulation. During the glass “melting” process the raw materials react chemically to become the material glass, rather than a mixture of the raw materials. The resulting glass is not identifiable by a CAS number. Therefore, the boron trioxide and lead oxide are not required to be reported under the REACH regulation. IMS products do not contain any of the currently listed SVHC’s, as of the 209 item candidate list dated June 25, 2020. IMS will continue to monitor the REACH candidate list to maintain compliance with the REACH regulation.

### RoHS

RoHS (Restriction of Hazardous Substances) originated in the EU and restricts the use of specific hazardous materials found in electrical and electronic (EE) products.

- The RoHS directive took effect July 1, 2006 and restricted the use of six hazardous materials: Lead (Pb), Mercury (Hg), Cadmium (Cd), Hexavalent chromium (Cr<sup>6+</sup>), and Polybrominated biphenyls (PBB) found in EE products
- The RoHS directive was expanded in July 2011, known as RoHS2, to cover all EE equipment, cables, and spare parts



- A further expansion, RoHS3, was published March 31, 2015 to add four additional restricted substances (phthalates)
  - These are Bis(2-ethylhexyl) phthalate (PBDE), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP) and Diisobutyl phthalate (DIBP)
- Exemptions for certain uses of the restricted chemicals were put in place where their prohibitions are technically or scientifically impractical

RoHS compliant products manufactured and supplied by IMS do not intentionally contain Mercury, Hexavalent chromium, Polybrominated biphenyls, phthalates, or free lead. The lead oxide present in certain products supplied by IMS remains bound in the glass phase of inorganic binder upon processing. This is covered by the glass exemption 7(c)-1, electrical and electronic components containing lead in a glass. The gold contacts of some IMS products contain Cadmium, which meets the exemption 8(b) of the RoHS directive for cadmium and its compounds in electrical contacts.

- RoHS compliance status is printed on the parts label as "RoHS Compliant"
- RoHS compliance status is indicated on data sheets and literature by ✓
- Specific RoHS Certificates of Compliance (C of C) are available on request

IMS supplies to a wide spectrum of applications and end users. These include military users that prohibit the presence of 100% tin finish due to the risk of tin whiskering. For many of these applications the end user prefers or requires lead in the solder coating. By definition, these products are not RoHS6 compliant. The products that contain lead in solder are not labeled RoHS Compliant or indicated by ✓ and the RoHS status is indicated on the data sheets and literature.

Sharon G. Benson  
Quality Manager, IMS

August 4, 2020