

The Affects of REACH on the Electronics Industry

½ Day Course

ABSTRACT

While RoHS has been the primary focus of the electronics industry, especially to those in manufacturing, the rising force and relevance of REACH cannot be ignored. This presentation will review the REACH regulation, compare its requirements to those within RoHS and RoHS2, and provide predictions as to the potential future influence of REACH on electronic design and manufacturing. This talk will be valuable for those involved in product design, electronic manufacturing, and guiding corporate policy in environmental compliance.

OUTLINE

- Relevance of REACH in Manufacturing and Reliability
- History and Review of REACH (Registration, Evaluation, and Authorization of Chemicals)
 - EU Chemical Legislation History
 - Single System for “Existing” and “New” Substances
 - Health and Safety Risks, Controllability and Substitutability
- REACH Pre-Registration and Registration
 - European Chemicals Agency (ECHA)
 - Timelines & Tonnage
 - Included Chemicals:
 - Substances
 - Base chemicals, specialty chemicals, metals, natural substances (if chemically modified)
 - Phase-in Substances
 - Listed in the European Inventory of Existing Commercial Chemical Substances (EINECS)
 - Manufactured in EU over the past 15 yrs (whether placed in market or not)
 - Non Phase-in Substances
 - Articles (finished products)
 - *Not Polymers*
 - Compiling and Filing Data on:
 - Toxicity
 - Exposure
 - Other health and safety factors
 - Appropriate risk management measures
 - Safe use for any member of the supply chain
 - Information on how the substances are being used
 - Substances of Very High Concern (SVHC)
 - Carcinogenic, Mutagenic or Toxic to Reproduction (CMR), category 1 or 2
 - Persistent, Bioaccumulative and Toxic (PBT)
 - Very Persistent and Very Bioaccumulative (vPvB)
 - Potentially cause serious effects to human health of the environment
 - Will require authorization to use
 - Lead as a SVHC?
 - All solder manufacturers and OEMs effected
- REACH testing or analysis possibly required after registration
- Goals of REACH
 - To ensure chemicals are produced and used in ways that minimize adverse effects on human health and environment
 - Substitution of most dangerous chemicals if alternative are identified

- RoHS vs. REACH
 - RoHS
 - Applicable only to electronics industry
 - Focus on articles (finished products)
 - Restrictions introduced if a substance is hazardous, regardless of substitutability
 - Numerous exemptions or exclusions
 - REACH
 - Applicable to all markets
 - Focus on substances (chemicals)
 - Restrictions introduced only if risk to human health or environment is proven, it cannot be controlled and substituted exist
 - Very few exclusions and exemptions
 - RoHS and REACH Comparison
 - RoHS may become obsolete due to importance of REACH
 - Advantages to REACH
 - Comprehensive
 - Balanced (risks and benefits considered)
- Predictions of the Future Influence of REACH
 - REACH is aimed at chemical industry, not electronics industry
 - REACH is aimed at substances, not so much articles
 - REACH is more conservative than RoHS
 - EU may be cut off from suppliers due to registration and test requirements
 - SVHC lists may expand in the future
 - Supply chain documentation may be required
- Actions in Preparation for REACH
 - Request information on all substances from your suppliers (material declaration sheets)
 - Facilitate communication with suppliers and customers regarding REACH
- Conclusion