

Pb-free Vocabulary Standardization Proposal

**NEMI Marking and Part Numbering Team
Ratified on 04/22/04**

**V. Gupta
Intel Corporation**

Problem Statement

- **Implementation of Pb-free and RoHS compliant product is occurring in phases.**
 - **Solder paste, followed by 2nd level interconnect, 1st level interconnect and then high-end products and peripherals**
- **In the meanwhile, several terms are being used to describe these various stages**
 - **Pb-free, Pb-light, Green, RoHS ready, RoHS compliant, Pb-free compatible, Environmentally friendly, etc..**
- **This is creating a lot of confusion in the industry**

Goal

- **Develop a common terminology that can be used in the industry to improve communication**
- **Publish the terminology in an “Industry Dictionary of Terms” e.g. Rosettanet or JEDEC/IPC documents**

Proposed Pb-Free Component and Board Terminology

THREE DIFFERENT LEVELS OF LEAD-FREE READINESS

– Sn=Tin; Pb=Lead

- **Pb-free* SLI (second level interconnect)**

Components

- J-Std-020 pre-conditioning , and
- Lead/ terminal finish or BGA balls are Pb-free*

Boards

- Assembled using Pb-free* solder paste, and
- Board Surface Finish/ Materials are Pb-free*

- **Pb-Free***

- Pb is not used in components or Boards.

- **RoHS Compliant**

Components & Boards

- Pb and other materials banned in RoHS Directive are not present in components and subsystems or if present, they are covered under a Legislative Exemption (or Clarification)

Feedback

● Next Steps

- Develop a poster/ reference guide for common use by industry and legislation
- Propose that these definitions be included in the JEDEC, IPC and other Dictionary of Terms