



Certificate Concerning "Pb-Free" Semiconductor Products

TI certifies that to its knowledge semiconductor products designated by TI to be "Pb-Free" conform to the requirements of the European Union's Restriction on Use of Hazardous Substances in Electrical and Electronic Equipment ("RoHS") Directive, 2002/95/EC.*

TI's terms "Lead-Free" or "Pb-Free" mean semiconductor products that are compatible with the current RoHS requirements for all 6 substances (see table below), including the requirement that lead not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, TI Pb-Free products are suitable for use in specified lead-free processes.*

This status is based on TI's understanding of RoHS and TI's knowledge of the materials that go into its products as of the date of disclosure of Pb-Free information.

Banned Substance	RoHS Proposed Maximum Limit(ppm)⁽¹⁾
Cadmium (Cd)	100
Lead (Pb)	1000
Mercury (Hg)	1000
Hexavalent Chromium (Cr6+)	1000
Poly Brominated Biphenyls (PBB)	1000
Poly Brominated Diphenyl Ethers (PBDE)	1000

(1) Maximum limit does not apply to applications covered by RoHS exemptions

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Date: November 18, 2004

***Important Information and Disclaimer:** Information provided by TI on its website or in other communications concerning the substance content of its products represents TI's knowledge and belief as of the date that it is provided. TI bases its knowledge and belief on information provided by third parties, and makes no representation or warranty as to the accuracy of such information. Efforts are underway to better integrate information from third parties. TI has taken and continues to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. TI and TI suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

In no event shall TI's liability arising out of such information exceed the total purchase price of the TI part(s) at issue sold by TI to Customer on an annual basis.

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