



Declaration of Compliance RoHS & RoHS 2 No Exemptions

Dear Valued Customers,

Semtech Corporation hereby declares products listed below to be compliant with the requirements for restricted substances listed in European Parliament's **RoHS Directive 2011/65/EU** issued June 8, 2011, commonly referred to as "RoHS2". The following table lists the restricted materials and their respective allowable limits:

Semtech part numbers: TS51221-M033QFNR

RoHS Restricted Substance	Allowable Limit
Cadmium and its compounds*	100 ppm (0.01 weight %)
Mercury and its compounds	1000 ppm (0.1 weight %)
Hexavalent chromium and its compounds	1000 ppm (0.1 weight %)
Lead and its compounds	1000 ppm (0.1 weight %)
Polybrominated biphenyls (PBB)	1000 ppm (0.1 weight %)
Polybrominated diphenyl ethers (PBDE)	1000 ppm (0.1 weight %)

We further declare that products do not contain the "RoHS2" chemical substances listed below pursuant to EU directive 2015/863 amendment to Annex II of EU RoHS 2 (2011/65/EU):

RoHS2 Restricted Substance	Allowable Limit
Diisobutyl phthalate (DIBP)	<1000 ppm
Bis (2-ethylhexyl) phthalate (DEHP)	<1000 ppm
Butyl benzyl phthalate (BBP)	<1000 ppm
Dibutyl phthalate (DBP)	<1000 ppm

As part of Semtech Corporation's environmental compliance program, the following substance which is used as a flame retardant is not intentionally added to our product or processes of manufacture.

Restricted Substance	Allowable Limit
Hexabromocyclododecane (HBCDD)	<1000 ppm



For Semtech products that exceed the allowable limits per homogeneous material level, we have identified the exception(s) below;

- No exemption taken.
- 1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp.
- 2a. Mercury in straight fluorescent lamps for general purposes not exceeding 10 mg in halophosphate lamps.
- 2b. Mercury in straight fluorescent lamps for general purposes not exceeding 5 mg in triphosphate lamps with a normal life.
- 2c. Mercury in straight fluorescent lamps for general purposes not exceeding 8 mg in triphosphate lamps with long lifetime.
- 3. Mercury in straight fluorescent lamps for special purposes.
- 4. Mercury in other lamps not specifically mentioned in this list.
- 5. Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.
- 6a. Lead as an alloying element in steel containing up to 0.35% lead by weight.
- 6b. Lead as an alloying element in aluminum containing up to 0.4% lead by weight.
- 6c. Lead as an alloying element in copper containing up to 4% lead by weight.
- 7a. Lead in high melting temperature type solders (i.e. lead-based alloys containing 85% by weight or more lead).
- 7b. Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission as well as network management for telecommunications.
- 7c. Lead in electronic ceramic parts (e.g. piezoelectronic devices).
- 8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC amending Directive 76/769/EEC relating to restrictions on the marketing and use of certain dangerous substances and preparations.
- 9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators.
- 10a. Deca BDE in polymeric applications.
- 10b. Lead in lead-bronze bearing shells.
- 11. Lead used in compliant pin connector systems.
- 12. Lead as a coating material for a thermal conduction module c-ring.
- 13a. Lead in optical and filter glass.
- 13b. Cadmium in optical and filter glass.



- 14. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80% and less than 85% by weight.
- 15. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.

CE Marking

RoHS 2 Directive also requires CE marking on products which are defined within a listing of 20 product group categories. This listing can be reviewed at, <http://www.ce-marking.org/what-product.html>. The Semtech product you are interested in and identified within this declaration, do not fall within those categories and therefore, do not require CE marking.

RoHS Compliance Table; Product Information

Semtech Corporation invites the customer to visit our website, www.semtech.com and review our RoHS compliance information with signed Hazardous Substance Declaration of Non-Use.

Semtech Corporation is pleased for the opportunity to address your needs and look forward to a continued and successful business relationship. Please refer to your Semtech sales representative for product orders, sales and quotes.

If you have any questions, do not hesitate to give me a call.

Sincerely,

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