

---

---

## < Semtech – Halogen Free Inquiry >

---

---

December 10, 2020

Dear Customer,

Thank you for your inquiry regarding the compliance of Semtech products with respect to “halogen free” initiatives.

To assist our customers and the electronics industry in their recent efforts to produce halogen free products, Semtech Corporation has carefully analyzed the materials and the manufacturing processes we use to build our products. Specifically, Semtech has:

- Worked directly with several key customers to define a “best practice” to perform chemical analysis of materials for halogen content.
- Applied this analysis to our direct build materials and determined that the majority of our products already meet the definition of halogen free or halogen low. Please refer to our table below.
- Begun the process of replacing those few materials that do not meet the definition of halogen free in order to help our customers achieve compliance to industry standards in this area.

Semtech part numbers that are designated as Halogen Free or Halogen Low for the following substances and levels:

<b>Halogen substances</b>	<b>Allowable Limit</b>
Chlorine (Cl)	<900 ppm
Bromine (Br)	<900 ppm
Br + Cl	<1500 ppm
Fluorine (F)	<900 ppm
Iodine (I)	<900 ppm
Astatine (At)	<900 ppm
Antimony (Sb)	<1000 ppm

This declaration applies to the following Semtech part number(s): TS33010-M018QFNR



Semtech uses only certified third party analytical laboratories to perform this testing. The preferred analysis methodology is oxygen bomb decomposition followed by Ion Chromatography (IC) as defined in British Standard EN 14582.

### **Semtech's RoHS Compliance Table**

Semtech maintains a comprehensive RoHS Compliance table posted within our website, <http://www.semtech.com/>. Within that table you will find links to our signed Material Declaration Certificates covering our product and shipping material. This information will allow you to assess suitability for your applications.

Semtech does warrant our product identified as "RoHS / WEEE compliant, Pb-Free and Halogen Free" provided directly or indirectly by Semtech to our distributors and direct customers that our product complies with 2011/65/EU as applicable, and Joint Industry Guide 101, Level A and Level B criteria to the extent noted therein. Semtech further warrants that we will inform our distributors and direct customers and take such other actions as we deem necessary if we reasonably believe any Product ceases to so comply.

As noted within our RoHS Compliance Table our customers will find IPC 1752 Class 6 material declarations and 3<sup>rd</sup> party environmental analytical reports for the product identified on the table.

Semtech Corporation will continue to support direct disclosure inquires outside the protocol noted above. Customers are encouraged to contact their Semtech sales representative for assistance.

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

Sincerely,

A handwritten signature in blue ink that reads "Randy Biddle". The signature is written in a cursive style and is underlined with a blue horizontal line.

Randy Biddle  
Manager, Corporate Quality Assurance  
Semtech Corporation  
200 Flynn Road  
Camarillo, CA 93012  
[rbiddle@semtech.com](mailto:rbiddle@semtech.com)  
Office: (805) 389-2787