

Halogen-Free Testing and Quality Assurance

SPECIAL TESTING OFFER!
 Halogen testing - HKD \$1,350/test from April 1 to June 30, 2008. Inquire about details.

Suppliers to the electronics industry are increasingly pressured by consumer electronic manufacturers to provide “Halogen-Free” or “Low-Halogen” products. Currently, most electronic products and components are treated with a flame retardant. Certain halogenated compounds are used as flame retardants in a variety of applications including thermoplastics, insulation materials, component mold compounds, solder masks and printed circuit board laminates. In addition, *polyvinyl chloride* (PVC – a resin that contains chlorine) is a commonly used base resin for certain cable jacketing.

What are Halogens? Halogens consist of five non-metallic elements found in group VIIA of the periodic table and they include: *Fluorine, Chlorine, Bromine, Iodine, and Astatine*. However, from the electronics industry point of view Halogen-Free products must not contain concentrations of Bromine or Chlorine above the threshold levels as defined by the International Electrotechnical Commission, IEC 61249-2-21 standard. Fluorine, Iodine and Astatine are not restricted at this point in time.

Halogens include:

- Fluorine (F)
- Chlorine (Cl)
- Bromine (Br)
- Iodine (I)
- Astatine (At)

Halogens Testing & Verification Service: The current threshold limits for Halogen-Free as per IEC 61249-2-21 is as follows:

| SUBSTANCE | THRESHOLD LIMIT (by weight) |
|------------------------------------|----------------------------------|
| Bromine (Br) | ≤ 900 parts per million (0.09%) |
| Chlorine (Cl) | ≤ 900 parts per million (0.09%) |
| Total Bromine (Br) + Chlorine (Cl) | ≤ 1500 parts per million (0.15%) |

STR offers **Testing** and **Verification** of your electrical and electronic products/components for the presence and concentration values of Halogens (Bromine and Chlorine). In addition, we can help you with a quality assurance system such as IECQ Hazardous Substance Process Management (HSPM) QC080000 certification to greatly reduce or eliminate the presence of hazardous substances in your process and products.



For a quotation to perform Halogens Testing please submit your request to Mr. Howard Wan at Howard.Wan@strhk.com.