Analysis of Substances of Concern for RoHS Directive

From the screening analysis to a precise analysis, we provide a service for a wide range of samples according to customer's needs, utilizing our wide analytical experience. We offer prompt analysis and supply accurate data under thorough quality control.

Certificate Reliability

ISO/IEC 17025

- Analysis of cadmium in plastics (BS EN 1122:2001)
- Analysis of cadmium, lead, chrome and mercury in plastics (standardization of selected trace metal element measuring method in chemical product: 2003)

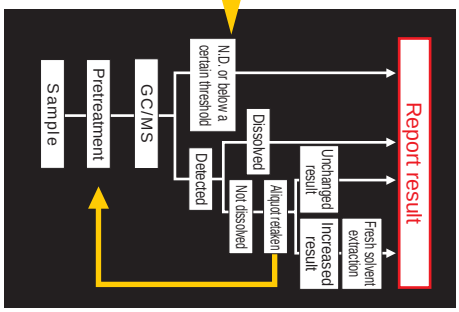
Standard reference substance (The Japan Society for Analytical Chemistry JSAC0602-2)
Measurement result by ICP-AES and ICP-MS (n=6) (μg/g)

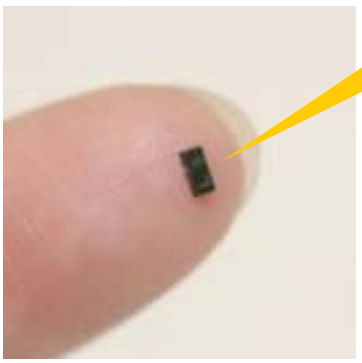
Element	Pb	Cd	Cr	Hg
Certified value	109.3±1.6	51.7±0.6	108.8±2.2	12.4±0.4
Measured value	109.4	51.7	109.3	12.7
Standard deviation	1.2	0.5	1.5	0.1
CV (%)	1.1	0.9	1.4	0.6

Advanced Technology

Please consult STR when you feel doubt in your analysis results of PBB and PBDE.

Reliable Check System
The result is not determined by a single analysis: confirmatory testing is done two or more times without fail.





Even a small amount like this can be analyzed for PBB and PBDE by high-resolution GC/MS (GC/HRMS).

Case where troubleshooting by GC/HRMS has been used

Case1: Customers obtained a different result from of the raw material manufacturer.
Case2: Customers obtained a result that exceeded the restriction value, though it should have made from compliant feedstock!?
Case3: Customers requires confirmation of results obtained from suppliers.
....etc.

Flexible Support

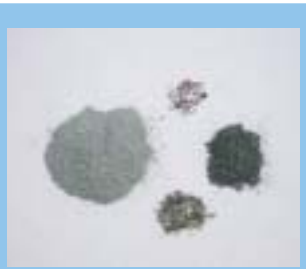
Support for single material or composite material

We support various samples such as plastics, metals, ceramics and composite materials, etc. The supplied sample will be homogenized, for example by the fine grinding etc. Also, composite material samples can be divided into their constituent parts, each part homogenized, then the homogenates recombined in proportion to their content in the original composite.

Sample
Various electronic parts are combined.

After decomposition
Electronic parts detached
Each part weighed

Sample preparation 1
Crushing and shredding.
Classify according to the material.



Sample preparation 2
Recombine according to the weight ratio in original sample and homogenize.

SHIMADZU TECHNO-RESEARCH INC.

2-13, Nishinokyo-sanjyobocho, Nakagyo-ku, Kyoto 604-8435
TEL. +81-75-811-3181 FAX. +81-75-821-7837