SETSCO SERVICES PTE LTD

Microcontamination & Chemical Testing

Micro-Level Detections

Micro-level particulates are usually regarded as chemical contamination in products. They can be found in consumables, equipment or incoming materials and can have a devastating impact on yield in manufacturing processes. SETSCO has a dedicated Class 100 cleanroom for cleanliness testing and can provide the following analytical services:

Micro-Level Detection in Class 100 cleanroom
Ionic contamination by ion chromatography
Extractable metallic contamination by ICP
Organic contamination by GC-MS and/or FTIR
Outgassing test by Static Head Space (SHS) or Dynamic Head Space (DHS)
Condensible Volatile Residue (VVR) and Non Volatile Residue (NVR)
Liquid Particle Count (LCP) to 0.1 µm particle
Ultra sonic Liquid Particle Count (USLPC)
Particle analysis by microscopic FTIR and/or SEM/EDX

Our Accreditation

ACCREDITED LABORATORY SAC-SINGLAS

Accredited Laboratory Scheme
Accredited Fields of Testing:
- Chemical & Biological Testing
(LA-1994-0068-A)

bizSAFE STAR

PEOPLE DEVELOPER SINGAPORE

SINGAPORE QUALITY CLASS

Trace Analysis of High Purity Water and Chemicals

Ultrapure water and chemicals are usually one of the major root causes of the contamination. With better technology, products are getting miniature, purity became a critical concern for companies. SETSCO can provide detailed analysis in accordance with ASTM standard D5127.

Trace Analysis of High Purity Water & Chemical Testing
Total organic carbon (TOC)
Analysis of organics by GC-MSD
Total residue
Total dissolved and suspended solids (TDS & TSS)
Carbonate and bicarbonate
Dissolved silica and Bacteria count
Trace metals by ICP-MS/GFAAS/ICP-OES
Ions (Cl-, SO42-, NH4+, etc.) by ion chromatography
Moisture content of non-aqueous chemicals
Particles (particle sizes 0.1µm)
Particle analysis by SEM/EDX

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Airborne Molecular Contamination (AMC)

Air is a carrier for particulate foreign materials, with the increase pollution around the environment, air quality became a concern to manufacturers. Airborne Molecular Contamination (AMC) poses a major threat to yield. SETSCO is able to analyse clearoom air or gas supplies in accordance with SEMI standard F21-95 and BS EN ISO14644. Diagnostic tools include: ICP-OES, TD-GCMS-MS, LPC, SEM-EDX.

Airborne Molecular Contamination (AMC) Tests
Molecular Acids & bases, e.g. fluoride and sulphate, amines etc.
Molecular Dopants, e.g. boron, phosphorus, arsenic etc.
Molecular Condenables & Organics
Molecular Metals such as metal particle identification

SETSCO is also able to carry out AMC baseline studies and identify AMC effects on wafers through witness wafer analysis.

SETSCO

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