

## Certified Reference Materials for Every Application



SPEX CertiPrep was founded in 1954 to provide superior Certified Reference Materials (CRMs) for Spectroscopy and Chromatography. Since then, we have gained the experience, skills and specialized training to serve analytical scientists throughout the world.

SPEX CertiPrep offers an unparalleled selection of Inorganic standards for IC, ICP, ICP-MS and LC-ICP-MS; and Organic standards for GC, GC/MS, HPLC, and LC/MS. We are also able to manufacture custom CRMs to meet your specific requirements. All of our CRMs are manufactured from the highest purity materials and rigorously tested to comply with the highest certification levels for Certified Reference Materials. SPEX CertiPrep's scope of accreditations is the most comprehensive in the industry.

## Inorganic Certified Reference Materials: For use with IC | ICP | ICP-MS | LC-ICP-MS | XRF

### IC Standards

Ion Chromatography is an analytical process for the separation of ions based on charge affinity. Ion Chromatography can be used for a variety of different kinds of charged molecules from large proteins to amino acids. In order to ensure accurate analysis, quality standards, which are traceable and stable, are necessary. SPEX CertiPrep offers the highest quality IC standards available for the analytical laboratory.

### ICP Standards

Assurance® Grade standards designed for ICP analysis. They are available in single and multi-element formulations. Over 70 single-element standards are available at 1,000 µg/mL or 10,000 ug/mL. Multi-element standards include calibration test solutions, instrument performance standards, drinking water metals, and interference check standards.

### ICP-MS Standards

Claritas PPT® Grade standards are designed for ICP-MS analysis, and can also be used for ICP-OES analysis. They are available in single and multi-element formulations. The standards are available at 1 µg/mL or 1,000 ug/mL and are packaged in 30 mL and 125 mL bottles to minimize contamination. They are made using high purity acids, the highest grade starting materials, and high purity water to minimize potential contaminants. A one-step dilution to ppb levels reduces dilution errors.

### USP <232> and USP <233> Elemental Impurity Standards

The USP Metal Impurities Expert Panel has proposed new limits on the elemental impurities in pharmaceutical products based on concerns surrounding potential health toxicity. SPEX CertiPrep USP <232> (Limits) and USP <233> (Procedures) parts can be used "as is" as a calibration or check standard to verify Oral Daily Dose PDE, or diluted as needed for Parenteral Component Limit or Parenteral Daily Dose,

### Organometallic Oil Standards

SPEX CertiPrep offers a wide range of Organometallic Oil Standards in both single and multi-element blends. They come in convenient 50 g or 100 g sizes in a transparent matrix. Guaranteed to be stable and accurate!

### CLP Standards

Our CLP standards are used in conjunction with the Statement of Work for Inorganic Analysis; Multi-Media/Multi-Concentration Document Number ILM05.3/ISM 01.2.

### Carbon Black

Standardized Iodine Solution and Standardized Sodium Thiosulfate Solution are the required reagents for Carbon Black Testing – Iodine Adsorption Number (ASTM Method D1510). Carbon black is an almost pure form of elemental carbon used in a wide variety of applications.

### pH Buffers

Accurate and certified to ISO/IEC 17025:2017 and ISO 17034:2016 requirements. Buffers pH 2 through pH 12 are conveniently packaged in 500 mL bottles. We manufacture our buffers using high purity starting materials and ASTM Type I Water, and are thoroughly analyzed for certified value and homogeneity. Buffers are accurate, premium grade for calibration and quality control checks.

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## Organic Certified Reference Materials: For use with GC | GC/MS | HPLC | LC/MS

### Pharmaceutical Residual Solvent Standards

In the pharmaceutical industry, the guidelines set by the International Conference on Harmonization (ICH) and by United States Pharmacopeia (USP) and European Pharmacopeia (EP) mandate that manufacturing solvents have to be regulated due to their toxic and/or environmentally hazardous nature. For this industry, SPEX CertiPrep has created Pharmaceutical Residual Solvent Certified Reference Materials.

### USP <467> Residual Solvent Standards

We offer 35 analytes in Dimethyl Sulfoxide for Class 1, Class 2 and Class 3 solvents. Our products are manufactured and double checked by our QC department to validate the certificate of analysis which accompanies each product.

### Biodiesel Standards

Biodiesel is fast becoming an environmentally friendly alternative to petroleum sources. This fuel source is obtained by esterification of oils derived from plants or animals. To meet the demands of this industry, SPEX CertiPrep offers Biodiesel Certified Reference Materials designed to save time and money by eliminating the need to prepare in-house standards.

### Pesticide Standards

The concern over human pesticide exposure over the past few decades has led to increased monitoring and oversight of these chemicals. It is essential that testing labs have accurate standard mixes to measure the pesticide levels in the environment. At SPEX CertiPrep, we help streamline your testing process by creating pre-mixed standards to suit your needs.

### Cannabis Standards

While the legalization of cannabis, for both medicinal and recreational purposes, has been gaining speed, legislation and regulation has not necessarily kept pace. Even so, out of a drive for self-regulation and significant consumer safety concerns, many producers and manufacturers are turning to testing labs in order to ensure that their products are of high quality and free of chemical contaminants. SPEX CertiPrep offers ISO 17034 Certified Reference Materials (CRMs) for all of the common contaminants such as pesticide residues, residual solvents and heavy metals, as well as qualitative analysis CRMs such as terpenes. As the industry demands change and regulations are put into place, we continually update our product offerings.

### Bisphenol-A (BPA) and Phthalate Standards

Bisphenol-A (BPA) can be found in various products including toys, bottles, and epoxy resins. Over the past few years, concerns have grown regarding the safety of BPA and its potential health effects which include reproductive and genetic effects. Similarly, phthalates are primarily used in the production of plastic compounds and plastic containing products. Studies have linked phthalates to childhood asthma, reproductive disorders, diabetes, obesity, and genetic effects. SPEX CertiPrep offers a full line of BPA and phthalate standards.

### US EPA Drinking Water Methods

Drinking Water Laboratories use US EPA Drinking Water Methods 521, 525, 527, 529, and 535 to determine levels of nitrosamines (Method 521), organic compounds (Method 525), selected pesticides and flame-retardant compounds (Method 527), explosives and related compounds (Method 529), and chloroacetanilide and other acetamide herbicide degradates (Method 535) in drinking water. SPEX CertiPrep offers standards for these US EPA methods.

### Standards for Wine

Our comprehensive list of certified standards are designed to help regulate the chemical interactions that play key roles in wine spoilage such as cork taintage. We manufacture our standards for wine from the highest purity starting materials and the highest grade of solvents available to guarantee superior grade standards. Custom wine standards are also available.

## Contact Us

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