

Fisher Chemical: Purity Grades for Every Application

| Grade | Definition | Application | Certificate of Analysis |
|-----------------------------------|--|--|---------------------------------|
| UHPLC-MS Optima™ | Solvents specifically qualified for UHPLC-MS instrumentation. Signal to Noise specification greater than ten when measured with 250 ppt Propazine using MS/MS; allowing the solvents' quality to be linked directly to the sensitivity of the MS. Packaged in borosilicate glass and tightened metal specifications minimizes metal ion adduct formation. UHPLC-MS Gradient Suitability specification based on higher ionization efficiency to detect organic contaminants in full scan MS with the absence of an additive. Meets stringent purity requirements with 0.1 micron filtration to make particle free. Screened for UV-absorbing contaminants at every wavelength in the 200 to 400 nm range which is ideal for dual detection with an UV detector. | Ideal mobile phase for UHPLC-MS applications in pharmaceutical, biotechnology, clinical, environmental and food safety industries. | Available on request |
| Optima™ LC/MS | Meets stringent purity requirements of LC/MS and UHPLC by addressing the need for minimal organic contamination with 0.1 micron filtration to make particle free. Evaluated for 17 metal impurities at ppb concentrations for minimal metal mass adduct formation. High ionization efficiency to detect organic contaminants at 50 ppb max (positive) and 300 ppb max (negative) in full scan MS. Screened for UV-absorbing contaminants at every wavelength in the 200 to 400 nm range to afford smooth baselines and to reduce interferences. | Ideal mobile phase for LC/MS and UHPLC-UV applications in pharmaceutical, biotechnology, clinical, environmental and food safety industries. | Available on request |
| Optima™ | Acids and solvents of extremely high purity. Acids are analyzed for 65 metals by ICP/MS; impurity levels in ppt. Solvent impurity levels in ppm. UV absorbance curves and sample chromatograms available on request. For Optima acids, a typical lot analysis is given in the catalog. Impurity levels in an actual lot received may vary from the amount listed. | HPLC, GC, plasma/ICP, spectrophotometry, and pesticide residue analysis | Available on request |
| HPLC | Solvents manufactured specifically for use with HPLC instruments. Meet all ACS specifications. Submicron filtered. | HPLC and spectrophotometry procedures | Available on request |
| GC <i>Resolv</i> ™ | Solvents with the highest purity and lot-to-lot consistency. Free of contaminants to the ppb level, including those listed in Contract Laboratory Program Target Compound List. Meet ACS specifications. Chromatogram available on request. | Gas Chromatography (GC) | Available on request |
| Pesticide | Solvents for use in analysis of pesticide residue. Meet or exceed ACS standards of purity for pesticide residue analysis. | GC with electron capture detector (ECD), pesticide residue analysis | Available on request |
| Environmental Grade | Solvents for use in HPLC analysis, trace-organic analysis, and environmental testing. Packaged in pre-cleaned glass bottles in M3.5 (Class 100) cleanroom. Shipped with Certificate of Analysis. | HPLC, trace-organic analysis, environmental testing. | Available on request |
| Certified ACS Plus | Acids that, in addition to meeting or exceeding the latest specifications of the ACS, are analyzed for more than 16 metals. Actual lot analysis on label. | Analytical applications with tighter metal specifications | Available on request |
| Certified ACS | Reagent chemicals that meet or exceed the latest ACS Specifications. Actual lot analysis on label. | Analytical applications requiring tight specifications | Available on request |
| Certified | Reagent chemicals for which the purity standard is established by Fisher Scientific. Purity is guaranteed to meet published maximum limits of impurities. | General analytical procedures | Available on request |
| Spectranalyzed™ | Solvents for use in spectrophotometry. Also meet ACS specifications. Actual lot analysis on label. | Ultraviolet and visible wavelength detectors (UV-Vis) | Available on request |
| Plasma Grade | Solvents manufactured for use with plasma/ICP instruments. Impurity levels in ppt. Packaged in acid-cleaned polyethylene bottles. | Plasma/ICP, environmental testing, trace-metal analysis | Available on request |
| TraceMetal | Acids manufactured to achieve low metal contamination measurable in ppm to ppb range. Each lot is analyzed for more than 55 metals by ICP/MS. For TraceMetal acids, a typical lot analysis is given in the catalog. Impurity levels in an actual lot received may vary from amounts listed. | Primarily used in digestion of samples prior to instrument (ICP) analysis | Available on request |
| USP/NF/FCC/EP/BP/JP | Reagent chemicals that meet or surpass specifications of the United States Pharmacopeia (USP), the National Formulary (NF), the Food Chemicals Codex (FCC), the European Pharmacopeia (EP), the British Pharmacopeia (BP), and/or the Japanese Pharmacopeia (JP). | Food and drug laboratories, biological testing | 20L or greater; 10kg or greater |
| Histology | Solvents and products that are specially prepared for use in the histology laboratory setting. Solvents are filtered for tissue processing applications. | Tissue processing, clinical or histology procedures | Available on request |
| Biotechnology | Solvents and reagents that have been specially purified and assayed for biotechnology applications. | Electrophoresis, molecular biology, sequencing, and peptide and oligonucleotide synthesis | Available on request |
| Scintanalyzed™ | Solvents, fluors, and prepared cocktails for liquid scintillation counting. Includes nonflammable, nontoxic, biodegradable ScintiSafe™ cocktails. | Liquid scintillation counting | Available on request |
| Electronic | Solvents manufactured to ensure low levels of metal contamination. Meet Semiconductor Equipment and Materials Institute (SEMI) requirements. Actual lot analysis on label. | Electronics and circuit board manufacturing | Available on request |
| Laboratory, Technical and Reagent | Chemicals of reasonable purity for situations where no official standard for quality or impurity levels exist. | Manufacturing and general laboratory use | Available on request |



© 2014 Thermo Fisher Scientific Inc. All rights reserved.
Trademarks used are owned as indicated at www.fishersci.com/trademarks.

In the United States:

For customer service, call 1-800-766-7000
To fax an order, use 1-800-926-1166
To order online: www.fishersci.com

14-2045 JD/JG 11/14 BN1202131

In Canada:

For customer service, call 1-800-234-7437
To fax an order, use 1-800-463-2996
To order online: www.fishersci.ca



A Thermo Fisher Scientific Brand