

For over three decades, we produce and distribute selected high purity solvents, reagents and formulations for the research, pharmaceutical, biotechnology and semiconductor industries.

Our state-of-the-art production facilities meet the latest quality and environmental ISO standards, in which we develop, purify, distill and pack high purity solvents, acids and mixtures, in brand new clean-rooms.

We offer a range of packaging options in bottles, drums, IBCs and Iso-containers that ensure the maintenance of the solvent purity. Also available are returnable containers with dip pipe system which designed specially to minimize human and environmental exposure, providing customers with first-class quality and excellent product consistency.

Our Electronic grade solvents are quality characterized using a range of analytical techniques, including GC-Purity, Trace metal analysis using ICP & ICP-MS, Water content, Acidity/Alkalinity & Particles count. Certificate of analysis listing all results is available for every batch delivery.

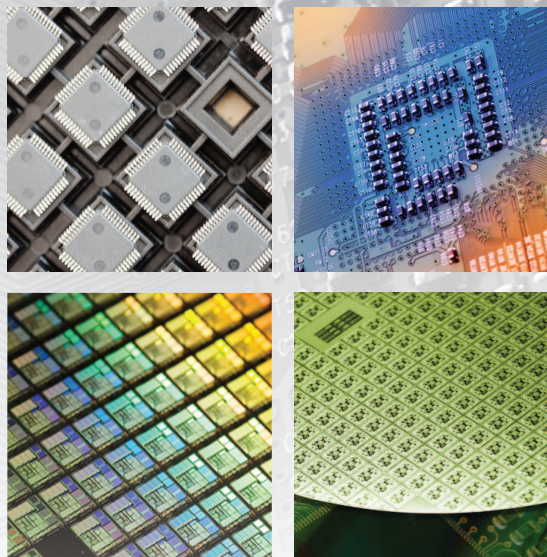
As our customer, you deserve excellent service, starting from the right packaging for your application through to swift and reliable delivery. We welcome you to contact us whenever you need our sound advice for quality, safety or product design, or to discuss the grade that best accommodates your special needs.

Available Chemicals For The Semiconductor Industry:

Acetic acid
Acetone
Butyl acetate
Ethanol absolute
Hydrogen peroxide 30%
Methanol
Methyl ethyl ketone
Methyl isobutyl ketone
1-Methyl-2-pyrrolidone
Nitric acid
2-Propanol
Sulfuric acid
Xylene

For further chemicals and mixtures please contact us at:
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w w w . b i o s o l v e - c h e m i c a l s . c o m



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Electronic Grade Chemicals for the Semiconductor Industry



Common specification:

Acetone

Test Description	Unit	MOS	VLSI	ULSI
Assay	%	99.8	99.9	99.9
Color	APHA	10	10	10
Water	%	0.2	0.2	0.2
Phosphate	ppm	-	0.5	0.1
Chloride	ppm	0.2	0.1	0.1
Residue	ppm	5	3	1
Alkalinity	ppm	10	10	10
Acidity	ppm	30	20	20
Aluminum (Al)	ppb	50	50	10
Antimony (Sb)	ppb	50	20	10
Arsenic (As)	ppb	50	20	5
Barium (Ba)	ppb	-	20	10
Beryllium (Be)	ppb	-	20	10
Bismuth (Bi)	ppb	-	20	10
Boron (B)	ppb	100	20	10
Cadmium (Cd)	ppb	-	20	5
Calcium (Ca)	ppb	100	50	20
Chromium (Cr)	ppb	50	20	10
Cobalt (Co)	ppb	-	20	5
Copper (Cu)	ppb	-	20	10
Gallium (Ga)	ppb	-	20	5
Germanium (Ge)	ppb	-	50	10
Gold (Au)	ppb	50	20	10
Iron (Fe)	ppb	100	50	10
Lead (Pb)	ppb	100	20	10
Lithium (Li)	ppb	-	20	5
Magnesium (Mg)	ppb	100	20	10
Manganese (Mn)	ppb	50	20	10
Molybdenum (Mo)	ppb	-	20	5
Nickel (Ni)	ppb	50	20	10
Niobium (Nb)	ppb	-	20	5
Potassium (K)	ppb	100	20	10
Silver (Ag)	ppb	-	10	5
Sodium (Na)	ppb	100	50	10
Strontium (Sr)	ppb	-	20	10
Tin (Sn)	ppb	50	20	10
Titanium (Ti)	ppb	50	20	10
Vanadium (V)	ppb	-	20	10
Zinc (Zn)	ppb	100	20	10
Zirconium (Zr)	ppb	-	10	5
Particle count <0.5µm	P/ml	1000	250	30

Hydrogen Peroxide

Test Description	Unit	MOS	VLSI	ULSI
Assay	%	30.5±0.5%	30.5±0.5%	30.5±0.5%
Color	APHA	10	10	10
Ammonia	ppm	-	1	0.5
Nitrate	ppm	5	2	1
Sulfate	ppm	2	1	0.5
Phosphate	ppm	1	0.5	0.2
Chloride	ppm	1	0.5	0.2
Residue	ppm	5	5	5
Acidity (as H ₂ SO ₄)	ppm	-	20	5
TOC	ppm	-	20	20
Resistivity (5%)	Mohm*cm	-	0.2	0.2
Aluminum (Al)	ppb	50	30	10
Antimony (Sb)	ppb	20	10	5
Arsenic (As)	ppb	10	10	10
Barium (Ba)	ppb	20	10	10
Beryllium (Be)	ppb	10	10	10
Bismuth (Bi)	ppb	20	20	10
Boron (B)	ppb	50	20	10
Cadmium (Cd)	ppb	20	10	10
Calcium (Ca)	ppb	100	50	10
Chromium (Cr)	ppb	20	10	10
Cobalt (Co)	ppb	20	10	5
Copper (Cu)	ppb	20	10	10
Gallium (Ga)	ppb	20	10	10
Germanium (Ge)	ppb	-	-	10
Gold (Au)	ppb	50	20	10
Iron (Fe)	ppb	50	30	10
Lead (Pb)	ppb	20	10	10
Lithium (Li)	ppb	20	10	10
Magnesium (Mg)	ppb	50	20	10
Manganese (Mn)	ppb	10	10	10
Molybdenum (Mo)	ppb	20	10	10
Nickel (Ni)	ppb	50	10	10
Niobium (Nb)	ppb	-	-	10
Potassium (K)	ppb	50	20	10
Silver (Ag)	ppb	20	10	10
Sodium (Na)	ppb	100	50	10
Strontium (Sr)	ppb	20	10	10
Tantalum (Ta)	ppb	-	20	10
Thallium (Tl)	ppb	-	20	10
Tin (Sn)	ppb	50	20	10
Titanium (Ti)	ppb	20	10	10
Vanadium (V)	ppb	20	10	10
Zinc (Zn)	ppb	50	20	10
Zirconium (Zr)	ppb	-	10	10
Particle count <0.5µm	P/ml	1000	250	100

Methanol

Test Description	Unit	MOS	VLSI	ULSI
Assay	%	99.8	99.9	99.9
Color	APHA	10	10	10
Water	%	0.1	0.05	0.05
Phosphate	ppm	-	0.5	0.2
Chloride	ppm	0.2	0.1	0.1
Residue	ppm	5	3	1
Alkalinity	ppm	5	3	2
Acidity	ppm	30	20	20
Aluminum (Al)	ppb	50	50	10
Antimony (Sb)	ppb	50	20	10
Arsenic (As)	ppb	50	20	10
Barium (Ba)	ppb	-	20	10
Beryllium (Be)	ppb	-	-	10
Bismuth (Bi)	ppb	-	20	10
Boron (B)	ppb	50	20	10
Cadmium (Cd)	ppb	-	20	10
Calcium (Ca)	ppb	100	50	10
Chromium (Cr)	ppb	50	20	10
Cobalt (Co)	ppb	50	20	10
Copper (Cu)	ppb	50	20	10
Gallium (Ga)	ppb	50	20	10
Germanium (Ge)	ppb	-	-	10
Gold (Au)	ppb	50	20	10
Iron (Fe)	ppb	100	50	10
Lead (Pb)	ppb	50	20	10
Lithium (Li)	ppb	-	20	10
Magnesium (Mg)	ppb	100	20	10
Manganese (Mn)	ppb	50	20	10
Molybdenum (Mo)	ppb	-	20	10
Nickel (Ni)	ppb	50	20	10
Niobium (Nb)	ppb	-	20	10
Potassium (K)	ppb	100	50	10
Silver (Ag)	ppb	-	20	5
Sodium (Na)	ppb	100	100	10
Strontium (Sr)	ppb	-	20	10
Tantalum (Ta)	ppb	-	20	10
Thallium (Tl)	ppb	50	20	10
Tin (Sn)	ppb	20	20	10
Titanium (Ti)	ppb	50	20	10
Vanadium (V)	ppb	-	20	10
Zinc (Zn)	ppb	50	20	10
Zirconium (Zr)	ppb	-	20	10
Particle count <0.5µm	P/ml	1000	250	30

Nitric Acid

Test Description	Unit	MOS	VLSI
Assay	%	65.0±0.5% 69.5±0.5%	65.0±0.5% 69.5±0.5%
Color	APHA	15	10
Sulfate	ppm	0.5	0.5
Phosphate	ppm	0.5	0.5
Chloride	ppm	0.5	0.5
Residue	ppm	10	5
Aluminum (Al)	ppb	50	20
Antimony (Sb)	ppb	20	5
Arsenic (As)	ppb	10	5
Barium (Ba)	ppb	50	10
Bismuth (Bi)	ppb	20	20
Boron (B)	ppb	50	10
Cadmium (Cd)	ppb	20	10
Calcium (Ca)	ppb	200	100
Chromium (Cr)	ppb	50	20
Cobalt (Co)	ppb	20	10
Copper (Cu)	ppb	20	10
Gallium (Ga)	ppb	20	20
Gold (Au)	ppb	50	10
Iron (Fe)	ppb	200	100
Lead (Pb)	ppb	50	20
Lithium (Li)	ppb	10	10
Magnesium (Mg)	ppb	50	50
Manganese (Mn)	ppb	20	10
Molybdenum (Mo)	ppb	20	20
Nickel (Ni)	ppb	50	10
Potassium (K)	ppb	50	50
Silver (Ag)	ppb	20	10
Sodium (Na)	ppb	200	100
Strontium (Sr)	ppb	50	20
Tin (Sn)	ppb	20	20
Titanium (Ti)	ppb	50	20
Vanadium (V)	ppb	50	10
Zinc (Zn)	ppb	100	50
Particle count <0.5µm	P/ml	1000	250

2-Propanol

Test Description	Unit	MOS	VLSI	ULSI
Assay	%	99.8	99.9	99.9
Color	APHA	10	10	10
Water	%	0.1	0.05	0.05
Phosphate	ppm	-	0.5	0.2
Chloride	ppm	0.2	0.1	0.1
Residue	ppm	5	3	1
Alkalinity	ppm	10	5	2
Acidity	ppm	20	15	10
Aluminum (Al)	ppb	50	50	10
Antimony (Sb)	ppb	20	20	10
Arsenic (As)	ppb	20	20	10
Barium (Ba)	ppb	-	20	10
Beryllium (Be)	ppb	-	20	10
Bismuth (Bi)	ppb	-	20	10
Boron (B)	ppb	20	20	5
Cadmium (Cd)	ppb	-	10	10
Calcium (Ca)	ppb	100	50	10
Chromium (Cr)	ppb	20	20	10
Cobalt (Co)	ppb	20	20	10
Copper (Cu)	ppb	50	20	10
Gallium (Ga)	ppb	20	10	10
Germanium (Ge)	ppb	-	20	10
Gold (Au)	ppb	50	10	10
Iron (Fe)	ppb	100	50	10
Lead (Pb)	ppb	20	10	10
Lithium (Li)	ppb	-	10	10
Magnesium (Mg)	ppb	100	20	10
Manganese (Mn)	ppb	20	10	10
Molybdenum (Mo)	ppb	-	10	10
Nickel (Ni)	ppb	20	10	10
Niobium (Nb)	ppb	-	20	5
Potassium (K)	ppb	100	20	10
Silver (Ag)	ppb	-	20	10
Sodium (Na)	ppb	100	50	10
Strontium (Sr)	ppb	-	20	10
Tantalum (Ta)	ppb	-	20	10
Thallium (Tl)	ppb	-	20	10
Tin (Sn)	ppb	20	10	10
Titanium (Ti)	ppb	50	10	10
Vanadium (V)	ppb	-	10	10
Zinc (Zn)	ppb	50	20	10
Zirconium (Zr)	ppb	-	10	5
Particle count <0.5µm	P/ml	250	100	30

Sulfuric Acid

Test Description	Unit	MOS	VLSI	ULSI
Assay	%	96.0±1.0% 98.0±1.0%	96.0±1.0% 98.0±1.0%	96.0±1.0% 98.0±1.0%
Nitrate	ppm	0.2	0.2	0.2
Phosphate	ppm	0.5	0.5	0.5
Chloride	ppm	0.2	0.2	0.2
Residue	ppm	5	3	1
Subs. reduc. KMnO ₄	ppm	1	1	1
Aluminum (Al)	ppb	50	50	10
Antimony (Sb)	ppb	20	10	5
Arsenic (As)	ppb	10	10	10
Barium (Ba)	ppb	20	10	10
Beryllium (Be)	ppb	10	10	10
Bismuth (Bi)	ppb	20	20	10
Boron (B)	ppb	50	20	10
Cadmium (Cd)	ppb	50	10	10
Calcium (Ca)	ppb	100	50	10
Chromium (Cr)	ppb	20	10	10
Cobalt (Co)	ppb	20	10	5
Copper (Cu)	ppb	20	10	10
Gallium (Ga)	ppb	20	10	10
Germanium (Ge)	ppb	-	-	10
Gold (Au)	ppb	50	10	10
Iron (Fe)	ppb	200	50	10
Lead (Pb)	ppb	20	10	10
Lithium (Li)	ppb	10	10	10
Magnesium (Mg)	ppb	50	20	10
Manganese (Mn)	ppb	10	10	10
Molybdenum (Mo)	ppb	20	10	10
Nickel (Ni)	ppb	50	10	10
Niobium (Nb)	ppb	-	-	10
Potassium (K)	ppb	50	50	10
Silver (Ag)	ppb	20	10	10
Sodium (Na)	ppb	100	50	10
Strontium (Sr)	ppb	50	20	10
Tantalum (Ta)	ppb	-	-	10
Thallium (Tl)	ppb	-	-	10
Tin (Sn)	ppb	50	20	10
Titanium (Ti)	ppb	20	20	10
Vanadium (V)	ppb	20	10	10
Zinc (Zn)	ppb	50	20	10
Zirconium (Zr)	ppb	-	10	10
Particle count <0.5µm	P/ml	1000	250	100

