

Chemicals & Reagents Selection for the Battery Industry



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Anode Formulation Materials

Ref.	Description	Pack S	Supplier
10336090	Graphite, Pure, Powder	1 kg	Fisher Chemical
10380394	Graphite, powder	1 kg	Acros Organics
15416055	Graphite powder, natural, high purity, -200 mesh, 99.9999% (metals basis)	28 g	Alfa Aesar
11311188	Graphite powder, microcrystalline, -325 mesh, 75-82% C, 18-25% Ash	1 kg	Alfa Aesar
11321188	Graphite powder, microcrystalline, -325 mesh, 75-82% C, 18-25% Ash	250 g	Alfa Aesar
15432647	Graphite powder, synthetic, APS 7-11 micron, 99%	1 kg	Alfa Aesar
15422647	Graphite powder, synthetic, APS 7-11 micron, 99%	25 g	Alfa Aesar
11347068	Graphite powder, natural, briquetting grade, -100 mesh, 99.9995% (metals basis)	454 g	Alfa Aesar
11337068	Graphite powder, natural, briquetting grade, -100 mesh, 99.9995% (metals basis)	113 g	Alfa Aesar
11335077	Graphite powder, natural, briquetting grade, -200 mesh, 99.9995% (metals basis)	454 g	Alfa Aesar
11355077	Graphite powder, natural, briquetting grade, -200 mesh, 99.9995% (metals basis)	113 g	Alfa Aesar
11387068	Graphite powder, natural, microcrystal grade, APS 2-15 micron, 99.9995% (metals basis)	454 g	Alfa Aesar
11377068	Graphite powder, natural, microcrystal grade, APS 2-15 micron, 99.9995% (metals basis)	113 g	Alfa Aesar
11305087	Graphite powder, synthetic, conducting grade, -200 mesh, 99.9995% (metals basis)	454 g	Alfa Aesar
11375077	Graphite powder, synthetic, conducting grade, -200 mesh, 99.9995% (metals basis)	113 g	Alfa Aesar
11365087	Graphite powder, natural, universal grade, -200 mesh, 99.9995% (metals basis)	454 g	Alfa Aesar
11385087	Graphite powder, natural, universal grade, -200 mesh, 99.9995% (metals basis)	113 g	Alfa Aesar
11315087	Graphite powder, synthetic, conducting grade, -325 mesh, 99.9995% (metals basis)	454 g	Alfa Aesar
11345087	Graphite powder, synthetic, conducting grade, -325 mesh, 99.9995% (metals basis)	113 g	Alfa Aesar
11341188	Graphite powder, -20+80 mesh, 99.9% (metals basis)	1 kg	Alfa Aesar
11331188	Graphite powder, -20+80 mesh, 99.9% (metals basis)	250 g	Alfa Aesar
11315077	Graphite powder, synthetic, -20+100 mesh, 99.9% (metals basis)	1 kg	Alfa Aesar
11305077	Graphite powder, synthetic, -20+100 mesh, 99.9% (metals basis)	250 g	Alfa Aesar
11329288	Graphite Powder, -100 mesh, Ni 99.8% (Metals basis)	500 g	Alfa Aesar
11339288	Graphite Powder, -100 mesh, Ni 99.8% (Metals basis)	100 g	Alfa Aesar
15467755	Carbon black, Super P™ Conductive, 99+% (metals basis)	100 g	Alfa Aesar
15457755	Carbon black, Super P™ Conductive, 99+% (metals basis)	25 g	Alfa Aesar
11344687	Carbon black, acetylene, >99.9%	3 kg	Alfa Aesar
11334687	Carbon black, acetylene, >99.9%	1 kg	Alfa Aesar
15406995	Carbon black, acetylene, 100% compressed, >99.9%	2 x 500 g	Alfa Aesar
11319349	Carbon slug, Black course powder, granular, pellets or slugs	5 kg	Alfa Aesar
15575886	Graphene	50 g	Acros Organics
15437405	Graphene nanoplatelets aggregates, sub-micronparticles, S.A. 500m2/g	100 g	Alfa Aesar

Anode Formulation Materials (continues)

11341629	Tin(IV) oxide, 99.9% (metals basis)	2 kg	Alfa Aesar
11321629	Tin(IV) oxide, 99.9% (metals basis)	500 g	Alfa Aesar
10637382	Tin(IV) oxide, 99.9%, (trace metal basis)	500 g	Acros Organics
10092990	Tin(IV) oxide, 99.9%, (trace metal basis)	100 g	Acros Organics
11307067	Tin(IV) oxide, 99.996% (metals basis), Alfa Aesar™, Puratronic™	25 g	Alfa Aesar
11495390	Tin(IV) oxide, nanopowder	50 g	Alfa Aesar
11307307	Tin (II) oxide (SnO)	500 g	Alfa Aesar
11470910	Indium Tin oxide, NanoTek 99.5%	100g	Alfa Aesar
11343438	Indium Tin oxide, 99.9% (metal basis)	100g	Alfa Aesar
11355407	Indium Tin oxide, Vacuum Deposition grade 99.99%	100g	Alfa Aesar
11375407	Indium Tin oxide, Vacuum Deposition grade 99.99%	25g	Alfa Aesar
11356178	Germanium(IV) oxide, White powder/flake/crystalline/beads, etc., Puratronic™, 99.999%	100g	Alfa Aesar
11336178	Germanium(IV) oxide, White powder/flake/crystalline/beads, etc., Puratronic™, 99.999%	25g	Alfa Aesar
11307838	Germanium(IV) oxide, White powder/flake/crystalline/beads/lump, etc., 99.99%	50g	Alfa Aesar
11372118	Bismuth germanium oxide, Puratronic™, 99.9995%	100g	Alfa Aesar
11382118	Bismuth germanium oxide, Puratronic™, 99.9995%	25g	Alfa Aesar
11423820	Silicon(IV) oxide, 99.8% (metals basis)	5kg	Alfa Aesar
15462837	Silicon(IV) oxide, 99.95% (metals basis)	100g	Alfa Aesar
11362118	Silicon (IV) oxide, 99.5%	10kg	Alfa Aesar
11313886	Silicon(IV) oxide, powder, 1.5 micron, 99.9%	100g	Alfa Aesar
11339349	Silicon(IV) oxide, 99.995% (metals basis)	100g	Alfa Aesar
11393876	Silicon(IV) oxide, powder, 1.0 micron, 99.9%	100g	Alfa Aesar
11450051	Silicon(IV) oxide, amorphous, nanopowder, 99.5% (metals basis)	100g	Alfa Aesar
11367007	Silicon(IV) oxide, Puratronic™ 99.999% (metals basis)	100g	Alfa Aesar
11398848	Silicon(III) oxide, 99.9% (metals basis)	500g	Alfa Aesar
11318858	Silicon(III) oxide, 99.9% (metals basis), for vacuum deposition	500g	Alfa Aesar
11328858	Silicon(III) oxide, 99.9% (metals basis), for vacuum deposition	100g	Alfa Aesar
11323438	Silicon(III) oxide, 99.99% (metals basis)	100g	Alfa Aesar
11378788	Lithium titanium oxide, 99% (metals basis)	1kg	Alfa Aesar
11388788	Lithium titanium oxide, 99% (metals basis)	250g	Alfa Aesar
15482647	Fullerene powder, 99% C60	5g	Alfa Aesar
15434925	Fullerene, carbon nanotube, multi-walled, 3-20 nm OD, 1-3 nm ID, 0.1-10 micron long, 95%	1g	Alfa Aesar
11344308	Fullerene, buckytube/nanotube, single walled	5g	Alfa Aesar
10574004	Fullerene C60, 99.9%	1g	Acros Organics
15486585	Fullerene, nanotube, multi-walled, 20-50 nm OD, <1 micron long	5g	Alfa Aesar
11395027	Fullerene powder, sublimed, 99.9+% C{60}	5g	Alfa Aesar
11384677	Fullerene powder, 99.5% C{60}	5g	Alfa Aesar
11355027	Fullerene powder, 99.9+% C{60}	5g	Alfa Aesar
11355297	Fullerene powder, mixed, typically 98% C{60}, 2% C{70}	1g	Alfa Aesar
11329557	Fullerene powder, mixed refined, typically 73% C{60}, 22% C{70}, higher 5%	5g	Alfa Aesar
11489900	Fullerene, buckytube/nanotube, double-walled, 50 - 80%	2g	Alfa Aesar
11430071	Fullerene, carbon nanotube, multi-walled, ≤8 nm OD, 2-5 nm ID, 0.5-2 micron long	5g	Alfa Aesar

Anode Formulation Materials (continues)

11360128	Fullerene, nanotube, multi-walled, as-produced cathode deposits, core and shell	50g	Alfa Aesar
11370128	Fullerene, nanotube, multi-walled, as-produced cathode deposits, core and shell	10g	Alfa Aesar
11309228	Fullerene powder, 98+% C[70]	1g	Alfa Aesar
11475230	Fullerene, buckytube/nanotube, single walled	5g	Alfa Aesar
11309698	Fullerene, nanotube, multi-walled, 20-50 nm OD, 5-20 micron long	5g	Alfa Aesar
11364308	Fullerene, buckytube/nanotube, multi-walled, ground core, 7-12nm OD, 0.5-10 micron long	25g	Alfa Aesar
11354308	Fullerene, buckytube/nanotube, multi-walled, ground core, 7-12nm OD, 0.5-10 micron long	5g	Alfa Aesar

Binders

10410663	Carboxymethylcellulose, sodium salt, average M.W. 250000 (DS=1.2)	1kg	Acros Organics
10458590	Carboxymethyl Cellulose Sodium Salt, Extra Pure, SLR, Low Viscosity	500g	Fisher Chemical
11936991	Sodium alginate	2.5kg	Acros Organics
10468800	Sodium Alginate, Technical, SLR	500g	Fisher Chemical
15494369	Alginic acid sodium salt, high viscosity	1kg	Alfa Aesar
15484369	Alginic acid sodium salt, high viscosity	250g	Alfa Aesar
10022020	Acrylic acid, 98%, extra pure, stabilized	2.5L	Acros Organics
10657753	Acrylic acid, 98%, extra pure, stabilized	10L	Acros Organics
11346876	Acrylic acid, 99%, stab. with ca 200ppm 4-methoxyphenol	2.5kg	Alfa Aesar
11336876	Acrylic acid, 99%, stab. with ca 200ppm 4-methoxyphenol	500g	Alfa Aesar

Catode Formulation Materials

11397657	Lithium cobalt(III) oxide, 97%	1kg	Alfa Aesar
11387657	Lithium cobalt(III) oxide, 97%	50g	Alfa Aesar
11329737	Lithium cobalt(III) oxide, 99.5% (metals basis)	100g	Alfa Aesar
11313768	Lithium manganese(III,IV) oxide, 99.5% (metals basis)	100g	Alfa Aesar
10020380	Sulfur, Extra Pure, Precipitated, SLR	500g	Fisher Chemical
11914061	Sulfur, Refined 99.5+%	10kg	Acros Organics
15621370	Sulfur, colloidal powder	1kg	Honeywell
11340398	Sulfur powder, 99.5%	2kg	Alfa Aesar
10740711	Sulfur, 99.5%, sublimed	2.5kg	Acros Organics
11357728	Sulphur Powder, sublimed, -100 mesh, 0.995	2kg	Alfa Aesar
11356847	Sulfur pieces, 99.99% (metals basis), Puratronic™	250g	Alfa Aesar
15627320	Sulfur, purum p.a., ≥99.5% (I)	1kg	Honeywell Fluka
10113790	Sulfur, 99.999%, (trace metal basis)	250g	Acros Organics
11365778	Sulphur Pieces, Puratronic™, 99.9995% (Metals basis)	500g	Alfa Aesar
11375778	Sulphur Pieces, Puratronic™, 99.9995% (Metals basis)	100g	Alfa Aesar
11460310	Lithium sulfide, 99.9% (metals basis)	250g	Alfa Aesar

Interstitial Formulation Materials

11433943	Polyethylene powder, low density, 500 micron	2.5kg	Alfa Aesar
11423943	Polyethylene powder, low density, 500 micron	500g	Alfa Aesar
15436805	Polyethylene sheet, High Density, 12.7mm (0.5 in.) thick	single	Alfa Aesar
15426805	Polyethylene sheet, Low Density, 3.18mm (0.125 in.) thick	single	Alfa Aesar
15466815	Polyethylene sheet, Low Density, 6.35mm (0.25 in.) thick	single	Alfa Aesar
15427345	Polyethylene sheet, Low Density, 4.8mm (0.19 in.) thick	single	Alfa Aesar
15456785	Polyethylene sheet, High Density, 1.6mm (0.063 in.) thick	single	Alfa Aesar

Interstitial Formulation Materials (continues)

15476815	Polyethylene sheet, High Density, 6.35mm (0.25 in.) thick	single	Alfa Aesar
15446785	Polyethylene sheet, Low Density, 1.6mm (0.063 in.) thick	single	Alfa Aesar
15406835	Polyethylene sheet, High Density, 3.18mm (0.125 in.) thick	single	Alfa Aesar
15496825	Polyethylene sheet, Low Density, 12.7mm (0.5 in.) thick	single	Alfa Aesar
15462197	Polypropylene sheet, 3.18mm (0.125mm) thick	single	Alfa Aesar
15432187	Polypropylene sheet, 6.36mm (0.25 in.) thick	single	Alfa Aesar
15482207	Polypropylene sheet, 12.7mm (0.5 in.) thick	single	Alfa Aesar
15452177	Polypropylene sheet, 1.6mm (0.063 in.) thick	single	Alfa Aesar
11337217	Lithium hexafluorophosphate, 98%	50g	Alfa Aesar
10388933	Lithium hexafluorophosphate, 98%, pure	100g	Acros Organics
11317217	Lithium tetrafluoroborate, 98%	50g	Alfa Aesar
10358550	Lithium tetrafluoroborate, 98%, pure, anhydrous	50g	Acros Organics
11382478	Lithium tetrafluoroborate, ultra dry, 99.997% (metals basis)	25g	Alfa Aesar
11382379	Lithium bis(trifluoromethylsulfonyl)imide, 98+%	50g	Alfa Aesar

Metals

11749408	Aluminum Foil 18um, 30cm wide		FisherBrand
11779408	Aluminum Foil 24um, 46cm wide		FisherBrand
11488450	Aluminum foil, 0.5mm (0.02 in.) thick, annealed, Puratronic™, 99.9999% (metals basis)	100x100mm	Alfa Aesar
11480700	Aluminum foil, 0.5mm (0.02 in.) thick, annealed, Puratronic™, 99.9999% (metals basis)	50x50mm	Alfa Aesar
11498450	Aluminum foil, 0.5mm (0.02 in.) thick, annealed, Puratronic™, 99.9999% (metals basis)	100x500mm	Alfa Aesar
11460321	Aluminum Ultrathin foil, 0.8 micron thick, 99.1% (metals basis)	140x140mm	Alfa Aesar
11318638	Aluminum Ultrathin foil, 0.8 micron thick, 99.1% (metals basis)	30x30mm	Alfa Aesar
15416345	Aluminum Ultrathin foil, 0.8 micron thick, 99.1% (metals basis)	160x160mm	Alfa Aesar
11325717	Aluminum foil, 0.25mm (0.01 in.) thick, annealed, Puratronic™, 99.9995% (metals basis)	100x100mm	Alfa Aesar
11335717	Aluminum foil, 0.25mm (0.01 in.) thick, annealed, Puratronic™, 99.9995% (metals basis)	100x500mm	Alfa Aesar
11480580	Aluminum foil, 0.25mm (0.01 in.) thick, annealed, Puratronic™, 99.9995% (metals basis)	50x50mm	Alfa Aesar
11366059	Copper foil, 99.999% (metals basis), Puratronic™	50x50mm	Alfa Aesar
11376059	Copper foil, 99.999% (metals basis), Puratronic™	100x300mm	Alfa Aesar
11389837	Copper foil, 99.999% (metals basis), Puratronic™	100x100mm	Alfa Aesar
15485055	Copper foil, 0.025mm (0.001 in.) thick, annealed, uncoated, 99.8% (metals basis)	30x150mm	Alfa Aesar
15495055	Copper foil, 0.025mm (0.001 in.) thick, annealed, uncoated, 99.8% (metals basis)	30x1000mm	Alfa Aesar
11348938	Nickel Wire, 0.15mm (0.006 in.) dia., approx.99%, Nickel 200 (Metals basis)	1000m	Alfa Aesar
11338938	Nickel Wire, 0.15mm (0.006 in.) dia., approx.99%, Nickel 200 (Metals basis)	250m	Alfa Aesar
11328608	Nickel wire, 0.025mm (0.001 in.) dia., hard, 99.98% (metals basis)	1m	Alfa Aesar
11307897	Nickel wire, 1.0mm (0.04 in.) dia., annealed, 99.5% (metals basis)	10m	Alfa Aesar
11389438	Stainless Steel wire, 0.25mm (0.01 in.) dia., annealed, Type 304	5m	Alfa Aesar
11385267	Stainless Steel wire, 0.51mm (0.02 in.) dia., Type 304	150cm	Alfa Aesar
11325277	Stainless Steel wire, 2.0mm (0.08 in.) dia., Type 304	150cm	Alfa Aesar
11399438	Stainless-Steel wire, annealed	5m	Alfa Aesar
15474055	Aluminum Magnesium gauze , alloy 5056, 20 mesh woven from 0.23mm (0.009 in.) dia. wire	300x300mm	Alfa Aesar
15464055	Aluminum Magnesium gauze , alloy 5056, 20 mesh woven from 0.23mm (0.009 in.) dia. wire	150x150mm	Alfa Aesar
11347697	Magnesium Aluminum Zinc wire, 3.18mm (0.125 in.) dia., 90cm (35 in.) long	100x90cm	Alfa Aesar
11327697	Magnesium Aluminum Zinc wire, 3.18mm (0.125 in.) dia., 90cm (35 in.) long	25x90cm	Alfa Aesar

Metals (continues)

11307687	Magnesium Aluminum Zinc wire, 1.59mm (0.063 in.) dia., 90cm (35 in.) long	100x90cm	Alfa Aesar
11317687	Magnesium Aluminum Zinc wire, 1.59mm (0.063 in.) dia., 90cm (35 in.) long	25x90cm	Alfa Aesar
15444075	Aluminum Magnesium gauze, alloy 5056, 16 mesh woven from 0.24mm (0.0095 in.) dia. wire	150x150mm	Alfa Aesar
11315187	Aluminum Magnesium gauze, alloy 5056, 30 mesh woven from 0.23mm (0.009 in.) dia. wire	300x300mm	Alfa Aesar
11395177	Aluminum Magnesium gauze, alloy 5056, 30 mesh woven from 0.23mm (0.009 in.) dia. wire	150x150mm	Alfa Aesar

Solvents

15552413	N-Methylpyrrolidone, NMP, 1-Methyl-2-pyrrolidinone	1L	Fisher Chemical
15682840	1-Methyl-2-pyrrolidinone, CHROMASOLV™ Plus, for HPLC, ≥99%	4x4L	Honeywell
10023113	1-Methyl-2-pyrrolidinone, 99%, extra pure	25L	Acros Organics
10773891	1-Methyl-2-pyrrolidinone, 99%, extra pure	2.5L	Acros Organics
10304122	1-Methyl-2-pyrrolidinone, 99.5%, Extra Dry over Molecular Sieve, Acros Organicseal™	2.5L	Acros Organics
10533864	1-Methyl-2-pyrrolidinone, 99.5%, Extra Dry, Acros Organicseal™	2.5L	Acros Organics
11935151	Diethyl carbonate	10L	Acros Organics
10570561	Diethyl carbonate	2.5L	Acros Organics
11404094	Diethyl carbonate, 99+%	10L	Alfa Aesar
11494084	Diethyl carbonate, 99+%	2.5L	Alfa Aesar
10659853	Ethylene Carbonate, +99%	5kg	Acros Organics
10539600	Ethylene Carbonate, +99%	1kg	Acros Organics
11432378	Ethylene carbonate, 99%	10kg	Alfa Aesar
11422378	Ethylene carbonate, 99%	2.5kg	Alfa Aesar
15417328	Vinyl ethylene carbonate, 4-Vinyl-1,3-dioxolan-2-one, 99%	250g	Alfa Aesar
10669263	Propylene Carbonate, 99.50%	10L	Acros Organics
10615572	Propylene Carbonate, 99.50%	2.5L	Acros Organics
11422997	Propylene Carbonate, 99%	5kg	Alfa Aesar
15821637	Propylene Carbonate, 99%	2.5kg	Alfa Aesar
15685450	Propylene carbonate, CHROMASOLV™, for HPLC, 99.7%	1L	Honeywell
15488058	Fluoroethylene carbonate, 4-Fluoro-1,3-dioxolan-2-one, 98%	100g	Alfa Aesar
11344108	Vinylene carbonate, 97+%, stab. with BHT	10g	Alfa Aesar
10611073	Vinylene carbonate, 98%, stabilized	25g	Acros Organics
10247752	Ethylene glycol dimethyl ether, 99+%, extra pure, stabilized with BHT	25L	Acros Organics
10696070	Di(propylene glycol) methyl ether, 99%, mixture of isomers	5L	Acros Organics
11946261	1-Butyl-3-methylimidazolium hexafluorophosphate, 98+%	100g	Acros Organics
10330904	1-Butyl-3-methylimidazolium tetrafluoroborate, 98+%	100g	Acros Organics
11323597	1-n-Butylpyridinium chloride, 98%	50g	Alfa Aesar
11342309	1-Butyl-2,3-dimethylimidazolium chloride, 99%	50g	Alfa Aesar

Alfa Aesar

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Honeywell

ACROS
ORGANICS

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