



# 2019 MATERIALS HANDBOOK

## Product Listing Booklet

- Record your materials selections using the headings and code numbers below, referring to the enclosed order form on page 2 for additional information.
- If your material is not listed, please contact Susan Sutton, editor-in-chief, at (248) 786-1704; fax (248) 502-2033; email [suttons@bnpmedia.com](mailto:suttons@bnpmedia.com).

<b>A</b>	
00050	Abrasives
00100	Accelerator
00150	Acetic Acid
00200	Acid
00225	<b>Additives:</b>
00230	Chemical
00250	Adhesives
00300	Adsorbants
00350	Aggregate
00400	Albite
00450	Alginates
00500	Alkali
00550	Alkaline Earths
00600	Alkoxide
00650	Alloys
00700	Alum
00750	<b>Alumina:</b>
00800	Activated
00850	Bodies
00900	Bubble
00950	Calcined
01000	Chrome
01050	Colloidal
01100	Fibers, Polycrystalline
01150	Fused
01200	High-Purity
01250	Hydrated
01300	Platelets
01350	Reactive
01375	Spherical and Thermally Conductive Fillers
01400	Single Crystal
01450	Tabular
01500	Transformation-Toughened
01550	Trihydrate
01600	Zirconia-Toughened
01650	<b>Aluminum and Compounds of:</b>
01700	Aluminum Antimonide
01750	Aluminum Carbide
01800	Aluminum Fluoride
01850	Aluminum Hydroxide
01900	Aluminum Nitride
01950	Aluminum Nitride, Whiskers
02000	Aluminum Nitride, Silica Coated
02050	Aluminum Oxide
02100	Aluminum Phosphate, Mono Basic
02150	Aluminum Potassium Borate

02200	Aluminum Silicate
02250	Aluminum Silicate, Calcined
02300	Aluminum Sulfate
02350	Aluminum Titanate
02400	Amblygonite
02450	Ammonia
02470	<b>Ammonium and Compounds of:</b>
02500	Bicarbonate
02550	Bifluoride
02600	Metavandate
02650	Paratungstate
02700	Andalusite
02750	Andesine
02800	Anhydrite
02850	Anhydrous Rasorite
02900	Anorthite
02950	Antimony Oxide
03000	Antimony Sulfide
03050	High-Purity
03100	Apatite
03150	Aplite
03200	Aqua Regia
03250	Aragonite
03300	Arsenic
03350	Arsenic Oxide

<b>B</b>	
03400	Baddeleyite
03450	Barite
03470	<b>Barium and Compounds of:</b>
03500	Aluminate
03550	Carbonate
03600	Cerium Oxide
03650	Chloride
03700	Chromate
03750	Ferrite
03800	Fluoride
03850	Hydroxide
03900	Metaphosphate
03950	Molybdate
04000	Monohydrate
04050	Nitrate
04100	Octahydrate
04150	Oxide
04200	Peroxide
04250	Silicate
04300	Stannate
04350	Sulfate
04400	Sulfide

04450	Tantalum Oxynitride
04500	Titanate
04550	Tungstate
04600	Zirconate
04650	Zirconium Silicate
04700	Barytes
04750	Bastnasite
04800	<b>Bauxite:</b>
04850	Calcined
04900	Belite
04950	Bentonite
05000	Beryl
05050	Beryllia
05070	<b>Beryllium and Compounds of:</b>
05100	Aluminate
05150	Carbide
05200	Oxide
05250	Bichromate of Potassium
05300	Binders
05310	Biomaterials
05320	<b>Bismuth and Compounds of:</b>
05350	Oxide
05400	Selenide
05450	Stannate
05500	Subnitrate
05550	Telluride
05600	Titanate
05650	Zirconate
05700	Bonding Materials
05750	Bone Ash
05800	Borax
05850	Boric Acid
05900	Borides
05950	<b>Boron and Compounds of:</b>
06000	Boron Carbide
06020	Boron Carbide, Fiber
06050	Boron Carbide, Platelets
06100	Boron Carbide, Whiskers
06120	Boron Fiber
06150	Boron Nitride
06160	Boron Nitride, Coating
06170	Boron Nitride, Fiber
06175	Boron Nitride, Slurry
06200	Boron Phosphide
06250	Boron Triboride
06300	Borosilicate
06350	Brazing
06400	Brucite

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**C**

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06420 **Cadmium and Compounds of:**  
06450 Antimonide  
06500 Carbonate  
06550 Fluoride  
06600 Niobate  
06650 Orthophosphate  
06700 Oxide  
06750 Silicate  
06800 Sulfide  
06850 Telluride  
06900 Tungstate  
06950 Zirconate  
07000 Calcined Fire Clay  
07050 Calcite  
07070 **Calcium and Compounds of:**  
07100 Aluminate  
07150 Aluminum Silicate  
07200 Antimonate  
07250 Boride  
07300 Carbonate  
07350 Cyanamide  
07400 Fluorophosphate  
07450 Fluoride  
07500 Hexaboride  
07550 Magnesium Silicate  
07600 Metaborate  
07650 Molybdate  
07700 Nitrate  
07750 Orthosilicate  
07800 Oxide  
07850 Phosphate  
07900 Silicate  
07950 Stannate  
08000 Sulfate  
08050 Titanate  
08100 Tungstate  
08150 Zirconate  
08200 Zirconium Silicate  
08250 Calspar  
08300 Carbide  
08350 Carbides, Composite  
08400 Carboric Acid  
08450 Carbon and Graphite  
08500 Carbon Black  
08550 Carbon/Carbon  
08570 Carbon Fiber, Amorphous  
08580 Carbon Fiber, DLC (Diamond Like Carbon)  
08600 Carbonate  
08650 Cassiterite  
08700 Catalysts  
08750 Caustic Lime  
08800 Caustic Potash  
08850 Caustic Soda  
08900 Celestite  
08950 Cellulose, Microcrystalline  
09000 Cellulose Nitrate  
09050 Celsian

09100 **Cement:**  
09150 Calcium Aluminate  
09200 Cement, Gypsum  
09250 High-Temperature  
09300 Portland  
09350 Refractory  
09370 **Cerium and Compounds of:**  
09400 Cerium Fluoride  
09450 Cerium Oxide  
09500 Cerium Sulfide  
09550 Cermets  
09600 Cesium  
09650 Chalk  
09700 Chrome Alumina  
09750 Chromite  
09800 **Chromium and Compounds of:**  
09850 Aluminide  
09900 Borides  
09950 Carbides  
10000 Nitrides  
10050 Oxide  
10100 Silicides  
10150 Citric Acid  
10200 **Clay:**  
10250 Ball  
10300 Calcined  
10350 China  
10400 Conditioners  
10450 Enamel  
10500 Engobe  
10550 Fire or Refractory  
10600 Glaze  
10650 Hydrous  
10700 Modeling  
10750 Sagger  
10800 Slip  
10850 Stoneware  
10900 Wad  
10950 Cleaners  
11000 Clinocllore  
11050 **Coatings:**  
11100 Ceramic  
11150 Diamond  
11200 High-Heat-Resisting  
11250 Superconductor  
11300 Thermal Spray  
11350 Coatings, Zirconia  
11370 **Cobalt and Cobalt Compounds:**  
11400 Acetate  
11450 Aluminide  
11550 Carbonate  
11600 Chloride  
11650 Chromate  
11700 Hydroxide  
11750 Nitrate  
11800 Oxide  
11850 Sulfate  
11900 Sulfide  
11950 Colemanite  
12000 Colloidal Oxide

12050 Color Specks, Sized  
12100 Colorants  
12150 **Copper and Compounds of:**  
12200 Carbonate  
12250 Oxide  
12300 Sulfate  
12350 Titanate  
12400 Cordierite  
12450 Cornwall Stone  
12500 Corundum  
12550 Coupling Agents  
12600 Cristobalite  
12650 Crocus Martis  
12700 Cryolite  
12750 Cullet  
12800 Cyanides

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**D**

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12850 Decolorizer  
12900 Deflocculant  
12950 Defoamers  
13000 Dehydroabietylamine  
13050 Dextrin  
13100 **Diamond:**  
13150 Coatings, Composite  
13200 Industrial  
13250 Powder Compounds  
13300 Diatomaceous Earth  
13350 Dichlorodimethylsilane  
13400 Dielectric Powders  
13450 Diketone  
13500 Diopside  
13550 Dip Coatings  
13600 Dispersants  
13650 Dolomite  
13700 Dumortierite  
13750 Dyes  
13770 **Dysprosium and Compounds of:**  
13800 Chloride  
13850 Oxide

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**E-F**

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13900 Electroconductive Powders  
13950 Electrolyte  
14000 Encapsulants  
14050 Engobe  
14100 Enstatite  
14150 Epoxy Cements and Resins  
14200 Erbium Oxide  
14250 Ethyl Cellulose  
14300 Eucryptite  
14350 Europium Oxide  
14400 Feldspar  
14450 Ferric Chloride  
14500 Ferric Oxide  
14550 Ferrites  
14600 Ferrosphenel  
14650 Ferrous Oxide  
14700 Ferrous Sulfate

14750 Fillers, Ceramic  
14800 Filtration Rate Additive  
14850 Fireclay  
14900 Flint  
14950 Fluorbarite  
15000 Fluorides  
15050 Fluorine  
15100 Fluorspar  
15150 Flux  
15200 Formaldehyde  
15250 Forsterite  
15300 Frit  
15350 Fuchsine Dye  
15400 Fuel Cell Materials  
15450 Fullerenes  
15500 Fungicides

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## G

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15550 Gadolinium Oxide  
15600 **Gallium and Compounds of:**  
15650 Antimonide  
15700 Arsenide  
15750 Ferric Oxide  
15800 Nitride  
15850 Oxide  
15900 Phosphide  
15950 Garnet  
16000 **Germanium and Compounds of:**  
16050 Dioxide  
16100 Monoxide  
16150 Nitride  
16200 Oxide  
16250 Gerstley Borate  
16300 Gerstley Borate (Substitute)  
16350 **Glass:**  
16400 Powdered  
16450 Ready-To-Press  
16500 Glass Enamel  
16550 Glass Sand  
16600 Glass-Bonded Mica  
16650 Glass-Mica Composite  
16700 Glaubers Salts  
16750 **Glaze:**  
16800 Crystals  
16850 Stains  
16950 Glucose  
17000 Glycerine  
17050 Gold  
17100 Gold Chloride  
17150 Grain, Refractory  
17200 Graining Oxide  
17250 **Graphite:**  
17300 Fibers and Fabrics  
17350 Pyrolytic  
17400 Structural  
17450 Vitreous  
17500 Grit  
17550 Grog  
17600 Gum Arabic  
17650 Gum Tragacanth

17700 **Gypsum:**  
17750 Cements  
17800 Glass Batch

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## H

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17825 **Hafnium and Compounds of:**  
17850 Hafnium Boride  
17900 Hafnium Carbide  
17920 Hafnium Carbide Fiber  
17950 Hafnium Fluoride  
18000 Hafnium Nitride  
18050 Hafnium Oxide  
18100 Hafnium Oxide, High-Purity  
18150 Hafnium Silicate  
18200 Halloysite  
18250 Heavy Spar  
18300 Hectorite  
18350 Hematite  
18400 Hexaboron Silicide  
18450 Hexame Thyldisilazone  
18500 Holmium Oxide  
18550 Hornblende  
18600 Hydroabietyl Alcohol  
18650 Hydrochloric Acid  
18700 Hydrofluoric Acid  
18750 Hydrogen  
18800 Hydroxyapatite

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## I

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18850 Ice Colors  
18900 Illite  
18950 Ilmenite  
18975 **Indium and Compounds of:**  
19000 Antimonide  
19050 Arsenide  
19100 Nitride  
19150 Oxide  
19200 Phosphide  
19215 Industrial Gases  
19225 Ingot, Electron Beam  
19250 Injection Molding  
Compounds, Ceramic  
19300 **Inks:**  
19350 Inorganic  
19400 Organic  
19425 Ultraviolet  
19450 Intermetallic Compounds  
19500 Iridium Oxide  
19550 **Iron and Compounds of:**  
19600 Chromate  
19650 Chromite  
19700 Oxide, Micaceous  
19800 Phosphide  
19850 Propoxide  
19900 Pyrites  
19950 Silicate  
20000 Sulfate  
20050 Sulfide

20100 Irridizing Compounds  
20150 Ito

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## K

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20200 **Kaolin:**  
20250 Calcined  
20300 Florida  
20350 Hydrous  
20400 Ktp  
20450 Kyanite

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## L

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20500 Labradorite  
20550 Lamp Black  
20600 **Lanthanum and Compounds of:**  
20650 Aluminate  
20700 Boride  
20750 Carbonate  
20800 Chromate  
20850 Molybdate  
20900 Oxide  
20950 Strontium Manganite  
21000 Sulfide  
21050 Titanate  
21100 Trifluoride  
21370 **Lead and Compounds of:**  
21400 Antimonate  
21450 Bisilicate  
21500 Borate  
21550 Carbonate  
21600 Chromate  
21625 Litharge  
21650 Metaniobate  
21700 Metatantalate  
21750 Molybdate  
21775 Monosilicate  
21800 Oxide  
21825 Red  
21850 Selenide  
21900 Silicate  
21950 Silicate, Hydrous  
22000 Stannate  
22050 Sulfide  
22100 Telluride  
22150 Titanate  
22200 Tungstate  
22225 White  
22250 Zirconate  
22300 Zirconate Titanate  
22350 Lecithin  
22400 Lepidolite  
22450 Leucite  
22500 Lignosulfonates  
22550 Lime  
22600 Limestone  
22650 Litharge  
22700 Lithia

22750 **Lithium and Compounds of:**  
22800 Aluminate  
22850 Borate  
22900 Borosilicate  
22950 Carbonate  
23000 Citrate  
23050 Cobaltite  
23100 Fluoride  
23150 Manganite  
23200 Metagermanate  
23250 Metatantalate  
23300 Niobate  
23350 Oxide  
23400 Salts  
23450 Silicate  
23500 Sulfate  
23550 Tantalate  
23600 Titanate  
23650 Zirconate  
23700 Low-Temperature Cofired Ceramic Powders  
  
23750 LSM  
23800 Lubricants  
23850 Lusters  
23900 Lutetium Oxide

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## M

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23950 Magnesia Alumina  
24000 Magnesia Chrome  
24050 **Magnesite:**  
24100 Dead Burned  
24120 **Magnesium and Compounds of:**  
24150 Aluminate  
24200 Aluminum Silicate  
24250 Carbonate  
24300 Chromite  
24350 Dioxide  
24400 (Di) Titanate  
24450 Ferrite  
24500 Fluoride  
24525 Magnesium Phosphate, Mono Basic  
24550 Nitride  
24600 Oxide  
24650 Phosphate  
24750 Silicate  
24800 Silicide  
24850 Stearate  
24900 Stannate  
24950 Sulfate  
25000 Zirconate  
25050 Zirconium Silicate  
25100 Magnetite  
25150 Malachite Green  
25200 **Manganese and Compounds of:**  
25250 Acetate  
25300 Arsenide  
25350 Chloride  
25400 Dioxide

25450 Oxide  
25500 Pyrophosphate  
25550 Sesquioxide  
25600 Silicate  
25650 Silicide  
25700 Melamine Formaldehyde  
25750 Merthiolate  
25800 Metal Powders  
25850 Metallic Salts  
25900 Metallic Soaps  
25950 Metallizing  
26000 Methallyl Acetate  
26050 Methyl Cellulose  
26100 **Mica:**  
26150 Glass-Bonded  
26200 Microcline  
26210 **Microparticles:**  
26220 Poly (methyl methacrylate) (PMMA)  
26230 Polystyrene (PS)  
26240 Thermosets  
26250 Microsilica  
26275 **Microspheres:**  
26300 Microspheres, Hollow  
26350 Minium  
26400 Molasses  
26450 Molochite  
26500 **Molybdate:**  
26550 Ammonium  
26600 Barium  
26650 Calcium  
26700 Molybdate, Lead  
26750 Sodium  
26800 Molybdenite  
26850 **Molybdenum and Compounds of:**  
26900 Aluminide  
26950 Borides  
27000 Carbides  
27050 Disilicide  
27100 Disulfide  
27150 Molybdic Acid  
27200 Molybdic Oxide  
27250 Montmorillonite  
27300 Morpholine  
27350 **Mullite:**  
27400 Mullite, Zirconia  
27450 Mullite, Zirconia-Fused  
27500 Muriatic Acid

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## N

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27550 Nanomaterials  
27570 **Neodymium and Compounds of:**  
27600 Carbonate  
27650 Chloride  
27700 Molybdate  
27750 Oxide  
27800 Sulfate  
27850 Titanate  
27900 Nepheline  
27950 Nepheline Syenite

28000 Neutralizers  
28020 **Nickel and Compounds of:**  
28050 Acetate  
28100 Aluminate  
28150 Aluminide  
28170 Bonded Titanium Carbide  
28200 Borides  
28250 Carbonate  
28300 Nitrate  
28350 Nitride  
28400 Oxides  
28450 Stannate  
28500 Sulfates  
28570 **Niobium and Compounds of:**  
28600 Beryllides  
28650 Boride  
28700 Carbide  
28750 Chloride  
28800 Ethoxide  
28850 Hydrate  
28900 Nitride  
28950 Oxalate  
29000 Oxide  
29050 Pentoxide  
29100 Silicide  
29150 Niter  
29200 Nitric Acid  
29250 Nitrides  
29300 Nitrogen  
29350 Nitroparaffins

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## O

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29400 Ochre  
29450 Octyl Alcohol  
29500 Oligoclase  
29550 Olivine  
29600 Opacifiers  
29650 Organometallics  
29700 Organosols  
29750 Orthoclase  
29800 Oxygen

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## P-Q

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29850 Pastes  
29900 Pearl Ash  
29950 Periclase  
30000 Perovskites  
30050 Petalite  
30100 Phlogopite  
30150 Phosphates  
30200 Phosphate Slag  
30250 Phosphide  
30300 Phosphoric Acid  
30350 Phosphors  
30400 Piezoelectric Compositions  
30450 **Pigments:**  
30460 Ceramic  
30470 Inorganic  
30500 Placing Sand

30530 Plaster  
 30550 Plaster of Paris  
 30600 Plasticizers  
 30650 Platinum  
 30700 PMN  
 30750 Polyacrylamide  
 30800 Polyacrylonitrile  
 30850 Polyester Resins  
 30900 **Polyethylene:**  
 30950 Glycols  
 31000 Resins  
 31050 Polyoxometalates  
 31070 **Polyvinyl:**  
 31100 Acetate  
 31150 Butyral  
 31200 Chloride  
 31250 Portland Cement  
 31300 Potash  
 31320 **Potassium and Compounds of:**  
 31350 Bichromate  
 31400 Carbonate  
 31450 Chloride  
 31500 Dichromate  
 31550 Fluoride  
 31600 Metatantalate  
 31650 Niobate  
 31700 Nitrate  
 31750 Nitrite  
 31800 Orthophosphate  
 31850 Permanganate  
 31900 Silicate  
 31950 Silicofluoride  
 31975 Titanate  
 32000 Titanate, Fibrous  
 32050 Powder Blue  
 32100 Powdered Metals  
 32150 Powders, Air Plasma Spray  
 32200 Praseodymium Oxalate  
 32250 Praseodymium Oxide  
 32300 Precursors, Ceramic  
 32350 Prepared Ceramic Body  
 32400 Pumice  
 32450 Pumicite  
 32500 Pyrite  
 32550 Pyrolusite  
 32600 Pyrolytic Graphite  
 32650 Pyrophyllite  
 32700 PZT  
 32750 Quartz  
 32800 Quicklime

## R

32850 Rare Earths  
 32900 Refractory Oxides  
 32950 Resins  
 33000 Retarders  
 33050 Rhodium Sesquioxide  
 33100 Rouge  
 33150 Rubidium  
 33200 Rutile  
 33250 Ryolex

## S

33300 Sagers Clay  
 33350 Sal Soda  
 33400 Salt Cake  
 33450 Saltpeter  
 33500 Samarium Oxide  
 33550 Sand  
 33575 Sapphire  
 33600 Sawdust  
 33625 **Scandium and Compounds of:**  
 33650 Scandium Carbide  
 33700 Scandium Nitride  
 33750 Scandium Oxide  
 33800 Scandium Oxide, High-Purity  
 33850 Scheelite  
 33900 Seals  
 33950 Selenium  
 34000 Semiconductor Materials  
 34050 Sensitizing Compounds  
 34100 Sericite  
 34150 Sialon  
 34200 Siderite  
 34250 Silane Coupling Agent  
 34300 **Silica:**  
 34350 Colloidal  
 34400 Fumed  
 34450 Fused  
 34500 High-Purity  
 34550 Microcrystalline  
 34600 Silica Coated Aluminum Nitride  
 34650 **Silica Gel:**  
 34700 Amorphous  
 34750 Silicate  
 34800 Silicate of Soda  
 34850 **Silicon and Compounds of:**  
 34900 Silicon, Polycrystalline  
 34950 Silicon Alkoxide  
 35000 Silicon Carbide  
 35050 Silicon Carbide, Pre-Ceramic Polymers  
 35100 Silicon Carbide, Semiconductor Grade  
 35200 Silicon Carbide, CVD Precursors  
 35220 Silicon Carbide, Fiber  
 35250 Silicon Carbide, Fibers  
 35300 Silicon Carbide, Forming Polymers  
 35325 Silicon Carbide, Microfibers  
 35350 Silicon Carbide, Platelets  
 35400 Silicon Carbide, Whiskers  
 35450 Silicon Metal Powder  
 35500 Silicon Nitride  
 35550 Silicon Nitride, Whiskers  
 35600 Silicon Oxycarbide Precursors  
 35650 Silicon Oxynitride  
 35700 Silicon Tetrachloride  
 35750 Silicones  
 35800 Sillimanite

35850 Silver-Antimony Telluride  
 35900 **Silver and Compounds of:**  
 35950 Carbonate  
 36000 Chloride  
 36050 Nitrate  
 36100 Oxide  
 36150 Sizing Agents  
 36200 Slag  
 36250 Slip Clay  
 36300 Slip Stain  
 36350 Smalt  
 36400 Soda  
 36450 Soda Ash  
 36470 **Sodium and Compounds of:**  
 36500 Aluminate  
 36550 Antimonate  
 36600 Benzoate  
 36650 Bicarbonate  
 36700 Bichromate  
 36750 Bifluoride  
 36800 Carbonate  
 36850 Carboxymethylcellulose  
 36900 Chloride  
 36950 Chromate  
 37000 Cyanide  
 37050 Diuranate  
 37100 Fluoride  
 37150 Lithium Niobate  
 37200 Metagermanate  
 37250 Metasilicate  
 37300 Metatantalate  
 37350 Nitrate  
 37400 Nitrite  
 37450 Oxide  
 37500 Phosphate  
 37550 Polyacrylate  
 37600 Pyrophosphate, Tetra  
 37650 Selenite  
 37700 Sesquicarbonate  
 37750 Silicate  
 37800 Silicofluoride  
 37850 Sulfate  
 37900 Sulfide  
 37950 Sulfinite  
 38000 Tetraphosphate  
 38025 Titanate  
 38050 Uranate  
 38100 Uranyl Carbonate  
 38150 Zirconium Phosphate  
 38200 Zirconium Silicate  
 38250 Sol-Gel Powders  
 38300 **Solder:**  
 38350 Hard  
 38400 Soft  
 38450 Solid Oxide Fuel Cell Materials  
 38500 Solvents  
 38550 Spinel  
 38600 Spodumene  
 38650 Squeegee Oil  
 38700 Stains  
 38750 Stannates

38800 Stannic Chloride  
 38850 Stannic Oxide  
 38900 Stannous Chloride  
 38950 Stannous Oxide  
 39000 Starch  
 39050 Stearates  
 39100 Stearic Acid  
 39150 Steatite  
 39170 **Strontium and Compounds of:**  
 39200 Aluminate  
 39250 Carbide  
 39300 Carbonate  
 39350 Ferrite  
 39400 Fluoride  
 39450 Hexaboride  
 39500 Nitrate  
 39550 Oxide  
 39600 Silicate  
 39650 Stannate  
 39700 Sulfate  
 39750 Titanate  
 39800 Zirconate  
 39850 Sulfide  
 39900 Sulfonated Oils  
 39950 Sulfur  
 40000 Sulfuric Acid  
 40050 Superabrasives  
 40100 Superconductors  
 40150 Surfactants

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**T**

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40200 Talc  
 40250 Tannic Acid  
 40270 **Tantalum and Compounds of:**  
 40300 Beryllides  
 40320 Carbide Fiber  
 40350 Carbides  
 40400 Chloride  
 40450 Diboride  
 40500 Ethoxide  
 40550 Nitride  
 40600 Oxide  
 40650 Silicides  
 40700 Tapes, Ceramic  
 40750 Tar  
 40800 Tellurium  
 40850 Terbium Oxide  
 40900 Terra Alba  
 40950 Terra Sigillatta  
 41000 Tetraethyl Orthosilicate  
 41050 Tetrasodium Pyrophosphate  
 41100 Thallium Calcium Barium Copper Oxide  
 41150 Thallium Oxide  
 41200 Thermal Barrier Materials  
 41250 Thermoplastics  
 41300 Thickener  
 41320 **Thorium and Compounds of:**  
 41350 Boride

41400 Carbides  
 41450 Nitride  
 41500 Oxide  
 41550 Sulfides  
 41600 Thulium Oxide  
 41650 Tin Oxide  
 41700 Tin Tetrachloride  
 41750 Titanate Ceramics  
 41770 **Titanium and Compounds of:**  
 41800 Boride  
 41850 Carbide  
 41900 Diboride  
 41920 Diboride Fiber  
 41950 Dioxide  
 42000 Dioxide High-Purity  
 42050 Dioxide Ultrafine  
 42100 Fluoride  
 42150 Nitride  
 42200 Nitride Whiskers  
 42250 Silicide  
 42300 Topaz  
 42350 Tricalcium Phosphate  
 42400 Trichloroethylene  
 42420 **Tungsten and Compounds of:**  
 42450 Boride  
 42470 Carbide Fiber  
 42500 Carbides  
 42550 Oxide  
 42600 Silicide

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**U-V**

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42650 Ulexite  
 42700 Umber  
 42750 Underglaze Colors  
 42800 **Uranium and Compounds of:**  
 42850 Carbide  
 42900 Dioxide  
 42950 Nitride  
 43000 Uranyl Sodium Carbonate  
 43050 Urea  
 43070 **Vanadium and Compounds of:**  
 43100 Boride  
 43150 Carbide  
 43200 Nitride  
 43250 Oxide  
 43300 Pentoxide  
 43350 Silicides  
 43400 Trioxide  
 43450 Vegetable Oils  
 43500 Vermiculite  
 43550 Volcanic Ash

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**W**

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43600 Water Glass  
 43650 Waxes  
 43700 Wetting Agents  
 43750 Whiting

43800 Wollastonite  
 43850 Wonderstone

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**Y-Z**

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43900 Y-TZP  
 43950 Ybco  
 44000 Ytterbium Oxide  
 44050 Yttria Tetragonal  
 44075 **Yttrium and Compounds of:**  
 44100 Yttrium Chloride  
 44150 Yttrium Nitrate  
 44200 Yttrium Oxide  
 44250 Zaffre  
 44300 Zeolite  
 44320 **Zinc and Compounds of:**  
 44350 Aluminate  
 44400 Antimonide  
 44450 Ferrite  
 44500 Molybdate  
 44550 Oxide  
 44555 Oxide, Aluminum Doped  
 44600 Phosphate  
 44650 Selenide  
 44700 Selenite  
 44750 Silicate  
 44800 Stearate  
 44850 Sulfate  
 44900 Sulfide  
 44950 Telluride  
 45000 Titanate  
 45050 Zirconium Silicate  
 45100 Zircon  
 45200 Zirconates  
 45250 **Zirconia:**  
 45300 Alumina  
 45325 Alumina-Toughened  
 45350 Engineering-Grade  
 45400 Hydroxide  
 45450 Mullite  
 45500 Mullite (Fused)  
 45550 Partially Stabilized  
 45600 Polycrystal  
 45650 Refractory-Grade  
 45660 Yttria-Stabilized  
 45670 **Zirconium and Compounds of:**  
 45700 Beryllides  
 45750 Carbide  
 45800 Carbonate  
 45850 Diboride  
 45900 Nitride  
 45950 Oxide  
 46000 Oxychloride  
 46050 Silicate  
 46100 Silicide  
 46150 Spinel  
 46200 Tungstate  
 46230 Zirconyl Phosphate  
 46250 Zirconyl Phosphate or Zirconium Phosphate  
 46300 ZTA