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PRINCIPAL WAR AND INDUSTRIAL METALS, MINERALS, AND MINERAL SUBSTANCES

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Entries for most states of the United States checked by the State Geologist of the state concerned.

In the first column of the table some principal ores and other sources are indicated by underlining. In the second column, the countries underlined together produced one-half or more of pre-war production of the mineral, mostly 1938, or earlier, production. In the third column, the states underlined together produced one-half or more of 1940 U.S. production. Numerals were used indicate production rank of the state in 1940, and of the country in the latest year for which adequate statistics are available. In the third column, United States supplies, it is intended to list insofar as possible not only producing states but also all known occurrences of the mineral that are commercial or give reasonable promise of becoming commercial.

Some rocks and mineral substances of great industrial value are not listed in this table of distribution since they occur widely on the earth and hence are common to most countries. Among these are: clay, dolomite, granite, high alumina clays, limestone, marble, sand, salines, silica, slate, volcanic ash, and various manufactured products such as brick and tile, carbon black, cement, lime, and sand-lime brick.

Among publications consulted special acknowledgment is made to Minerals Year Book, U.S. Bureau of Mines, 1941; Strategic Mineral Supplies, G.A. Roush, 1939; Industrial Minerals and Rocks, A.I.M.E., 1937; Handbook of Ore Dressing, A.F. Taggart, 1927; and State Geological Survey reports. Special acknowledgment is made also to State Geologists who have checked the list for their respective State.

Abbreviations used for countries: Afr, Africa; Alb, Albania; Alg, Algeria; An Is, Angaur Islands; Ara, Arabia; Arg, Argentina; Aus, Austria; Austral, Australia; Bah Is, Bahrein Islands; Bav, Bavaria; Belg, Belgium; Belg Con, Belgium Congo; Boh, Bohemia; Bol, Bolivia; Bor, Borneo; Braz, Brazil; Br Ind, British India; Bul, Bulgaria; Bur, Burma; Can, Canada; Cey, Ceylon; Cho, Chosen; Chris Is, Christmas Islands; Col, Columbia; Costa R, Costa Rica; Cur, Curacao; Cyp, Cyprus; Czec, Czechoslovakia; Ecu, Ecuador; Egy, Egypt; Eng, England; E In, East Indies; Est, Estonia; Eth, Ethiopia; Fin, Finland; Fr, France; Ger, Germany; Gold C, Gold Coast; Gr, Greece; Gr Brit, Great Britain; Greenl, Greenland; Guat, Guatemala; Gui, Guiana; Hol, Holland; Hon, Honduras; Hung, Hungary; Ice, Iceland; Indo-Ch, Indo-China; Ire, Ireland; It, Italy; Jap, Japan; Lab, Labrador; Lat, Latvia; Lith, Lithuania; Madag, Madagascar; Mak Is, Makatea Islands; Mala, Malay States; Mex, Mexico; Mor, Morocco; N Cal, New Caledonia; Newf, Newfoundland; New G, New Guinea; New Z, New Zealand; Nig, Nigeria; Nor, Norway; Pal, Palestine; Pan, Panama; Per, Persia; Phil Is, Philippine Islands; Pol, Poland; Port, Portugal; Porto R, Porto Rico; Queensl, Queensland; Rho, Rhodesia; Ruman, Rumania; Rus, Russia; S Afr, South Africa; Sakh, Sakhalin; S Amer, South America; Sara, Sarawak; Sax, Saxony; Scan, Scandinavia; Scot, Scotland; Seych Is, Seychelles Islands; Shetl Is, Shetland Islands; Siber, Siberia; Sic, Sicily; Sil, Silesia; Somal, Somaliland; Sp, Spain; Suma, Sumatra; Swed, Sweden; Switz, Switzerland; Tan, Tanganyika; Tasm, Tasmania; Thail, Thailand; Trin, Trinidad; Tun, Tunisia; Turk, Turkey; Unit K, United Kingdom; Ura, Uruguay; Ven, Venezuela; Yug, Yugoslavia.

Metal, mineral, or mineral substance and some minerals, ores, and other sources	Principal and some secondary world supplies of ores and minerals	Principal, secondary, and some minor U.S. supplies of ores and minerals
Aluminum: <u>alunite</u> , <u>andalusite</u> , <u>bauxite</u> , <u>cryolite</u> , <u>diaspore</u> , <u>gibbsite</u> , <u>labradorite</u> , high alumina clays	Austral, Braz, E In, <u>Fr</u> 2, Ger, Gr, <u>Gui</u> 1, <u>Hung</u> 3, India, Indo-Ch, Ire, <u>It</u> , Jap, Maia, Ruman, Rus, <u>U S</u> 4, Yug	<u>Ala</u> , Ariz, <u>Ark</u> 1, <u>Ga</u> , Miss, Mo, Tenn, Utah, Va. High alumina clays widely distributed, states not listed
Andalusite: found in schists and other metamorphic and igneous rocks	Afr, Aus, Austral, Belg, Braz, Fr, Sp, Swed, Switz	Calif, <u>Ida</u> , <u>Nev</u> , S D
Antimony: <u>cervantite</u> , <u>senarmontite</u> , <u>sibnite</u> , <u>valentinite</u>	Alg, Arg, Aus, Austral, <u>Bol</u> , Can, <u>China</u> 1, Czec, India, Indo-Ch, It, Jap, <u>Mex</u> 2, Mor, <u>Peru</u> , Port, <u>S Afr</u> , Turk, U S, Yug	<u>Ala</u> s, Ariz, Ark, Calif, <u>Ida</u> , Mont, <u>Nev</u> , Ore, Utah, Wash
Arsenic: <u>arsenopyrite</u> , <u>orpiment</u> , <u>realgar</u>	Austral, Belg, <u>Braz</u> 3, Can, Fr, Ger, Gr, Hung, It, Jap, <u>Mex</u> 2, Port, Swed, <u>U S</u> 1	<u>Mont</u> , Nev, N J, N Y
Asbestos: <u>actinolite</u> , <u>amosite</u> , <u>anthophyllite</u> , <u>crocidolite</u> , <u>crysotile</u> , <u>tremolite</u>	Austral, <u>Can</u> 1, China, Cyp, Czec, Fin, Fr, India, It, <u>Jap</u> 3, Madag, New Z, Rho, Rus, S Afr, Turk, <u>U S</u> 2, Ven	Ariz, Ga, <u>Ida</u> , Me, N C, Ore, Tex, <u>Vt</u> , Wash, Wyo
Asphalt: native asphaltum and from <u>petroleum</u>	Can, Cuba, Pol, Ruman, Trin, <u>U S</u> , Ven	<u>Ala</u> , Ark, Calif, <u>Ill</u> , Ind, Kan, Ky, La, Mo, N M, Ohio, Okla, Tex, Utah, W Va

Metal, mineral, or mineral substance and some minerals, ores, and other sources	Principal and some secondary world supplies of ores and minerals	Principal, secondary, and some minor U.S. supplies of ores and minerals
Barium: <i>barite</i> , <i>witherite</i>	Alg, Arg, Austral, Braz, Can, China, Cho, <i>Cuba</i> , Fr, <i>Ger</i> 1, Gr, India, <i>Indo-Ch</i> , It, Jap, Nor, Rus, <i>S Afr</i> , Sp, <i>U S</i> 2, Unit K	Ala, Alas, Ariz, Ark, Calif, Colo, Conn, <i>Ga</i> 2, Ky, Minn, <i>Mo</i> 1, Mont, Nev, N C, Okla, S C, <i>Tenn</i> 3, Tex, Va, Wash
Bentonite, sub-bentonite, fuller's earth and bleaching clays	Austral, Can, Fr, Ger, Gr Brit, India, Jap, Rus, <i>U S</i>	Ala, Ariz, Ark, <i>Calif</i> , Colo, Fla, <i>Ga</i> , Ida, Ky, La, Mass, Minn, Miss, Mont, Nev, N D, Okla, <i>S D</i> 2, <i>Tenn</i> , <i>Tex</i> , Utah, Wash, <i>Wyo</i> 1
Beryllium: <i>beryl</i> , <i>chrysoberyl</i> , <i>helvite</i>	Arg, Aus, Braz, Col, Egy, India, Madag, Rus, SW Afr, <i>U S</i>	Colo, Conn, <i>Ga</i> , Ida, Mass, Me, N H, N M, N Y, N C, S D, Va
Bismuth: <i>bismite</i> , <i>bismuth</i> , <i>bismutite</i> , <i>bismuthinite</i> , and from copper and other ores	Arg, Aus, <i>Bol</i> , <i>Can</i> , China, Fr, Ger, Jap, <i>Mex</i> 2, <i>Peru</i> 1, Rus, <i>S Afr</i> , Sp, Swed, <i>U S</i> , Yug	Ariz, Colo, <i>Mont</i> , N M, Tex, Utah
Boron: <i>boracite</i> , <i>borax</i> , <i>colemanite</i> , <i>pandermite</i> , <i>sassolite</i> , <i>ulexite</i>	Arg, <i>Bol</i> , Chile, Ger, India, It, Peru, Rus, Tibet, Turk, <i>U S</i>	<i>Calif</i> , Nev, Ore
Bromine: from brines, potash deposits, and sea water	Fr, <i>Ger</i> 2, It, Jap, <i>Pal</i> 3, Rus, Tun, Unit K, <i>U S</i> 1	Calif, <i>Mich</i> , N C, Ohio, Pa, Tex, W Va
Cadmium: chiefly from <i>zinc ores</i>	Austral, <i>Belg</i> 2, Can, Fr, Ger, It, Jap, Mex, Nor, Pol, Rus, SW Afr, <i>U S</i> 1, Unit K	Ariz, Ark, Ida, Kan, Mo, Mont, Okla, Tenn, Utah
Calcium chloride: from brines	Ger	Calif, Mich
Calcite (<i>Iceland spar</i>)	Arg, Can, Ger, Ice, S Afr, Sp	Calif, Mont, N M
Carbon dioxide (natural): from deep wells		Calif, Wash
Chromium: <i>chromite</i> , <i>crocoite</i>	Alb, Austral, Braz, Bul, Can, <i>Cuba</i> , Cyp, Gr, Guat, <i>India</i> , <i>Indo-Ch</i> , Jap, <i>N Cal</i> , Nor, <i>Phil Is</i> 4, <i>Rho</i> 3, Rus, <i>S Afr</i> 2, Turk 1, U S, Yug	Alas, <i>Calif</i> 2, <i>Ga</i> , <i>Mont</i> 1, N Y, N C, Ore, Wash, <i>Wyo</i>
Coal: anthracite, bituminous, sub-bituminous	Austral, Belg, Can, China, Czec, <i>Fr</i> , <i>Ger</i> 3, <i>Gr Brit</i> 2, Hol, India, It, Jap, Rus, <i>S Afr</i> , <i>U S</i> 1	Ala, Alas, Ariz, Ark, Colo, <i>Ga</i> , <i>Ill</i> 3, <i>Ind</i> , Ia, Kan, Ky 4, Md, Mich, Mo, N M, <i>Ohio</i> 5, Okla, <i>Pa</i> 1, <i>Tenn</i> , <i>Tex</i> , Utah, Va, Wash, <i>W Va</i> 2, <i>Wyo</i>
Cobalt: <i>cobaltite</i> , <i>erythrite</i> , <i>linnaeite</i> , <i>smaltite</i>	Austral, <i>Belg Con</i> 1, Boh, Can, <i>Fr Mor</i> , Ger, <i>N Rho</i>	Ariz, Colo, Ida, Mo, Pa, Vt
Copper: <i>azurite</i> , <i>boruite</i> , <i>chalcocite</i> , <i>chalcopyrite</i> , <i>chrysocolla</i> , <i>copper</i> , <i>malachite</i>	Austral, <i>Belg Con</i> , <i>Bol</i> , Bur, <i>Can</i> 3, <i>Chile</i> 2, <i>Cuba</i> , Cyp, Ger, India, It, <i>Jap</i> , Mex, N Rho, Peru, <i>Phil Is</i> , Port, <i>Rus</i> , Scan, Sp, Turk, <i>U S</i> 1, Yug	Alas, <i>Ariz</i> 1, Calif, Colo, <i>Ga</i> , Ida, <i>Mich</i> , <i>Mont</i> 3, <i>Nev</i> 4, N J, <i>N M</i> 5, N C, Ore, Pa, Tex, <i>Utah</i> 2, Va, Vt, Wash
Corundum: from granite, gneiss and other crystalline rocks and in stream deposits	Bur, Can, Cey, <i>India</i> , Madag, Rho, Rus, S Afr, <i>U S</i>	Ala, <i>Ga</i> , Mass, Mont, N Y, N C, S C
Cryolite: occurs in granite	Greenl	
Diamond: found in alluvial deposits, and in volcanic rocks and dikes, and in meteorites	Austral, <i>Belg Con</i> 1, Bor, <i>Braz</i> , <i>Gold C</i> , Gui, India, Rho, <i>W and S Afr</i>	Ark
Diatomite: siliceous tests of diatoms	Alg, Austral, Can, Fr, Ger, Ire, It, Nor, <i>U S</i>	Ariz, <i>Calif</i> , Conn, Fla, Me, Nev, N H, N J, N Y, <i>Ore</i> , Utah, Va, Wash, Wis

Metal, mineral, or mineral substances and some minerals, ores, and other sources	Principal and some secondary world supplies of ores and minerals	Principal, secondary, and some minor U.S. supplies of ores and minerals
Dumortierite: found in pegmatites, schists, gneisses, and quartzites	Fr, Fr Equi Afr, Madag, Nor, Scot, Sil	Ariz, Calif, Nev, Wash
Feldspar: albite, anorthite, orthoclase, microcline, plagioclase	Arg, Austral, Belg, Can, China, Czec, Egy, Fin, Fr, Ger, India, It, Jap, Nor, Ruman, Rus, S Afr, Swed, Unit K, U S 1	Ariz, Calif, Colo, Conn, Ga, Me, Minn, Mont, Nev, N H 3, N J, N M, N Y, N C 1, Pa, S D 2, Tex, Va, Vt, Wash, Wyo
Flint pebbles	Can	Ala, Calif, Minn, Tenn, Tex
Fluorspar (fluorite)	Afr, Arg, Austral, Bol, Braz, Can, China, Cho, Fr, Ger 1, Guat, India, It, Mex, Nor, Rus, Sp, Switz, Tun, Unit K, U S 2	Ariz, Calif, Colo, Ill 1, Ky 2, N H, N M, Nev, Tenn, Tex, Utah, Wash
Fuller's earth	See "bentonite."	See "bentonite."
Garnet: found in schists, crystalline limestones, gneisses, and granites, and detrital in sands	Can, Cey, Czec, India, Lab, Madag, S Afr, Somal, Sp	Calif, Conn, Ga, Ida, Mont, N H, N J, N Y, N C, Pa, Va, Wash
Gold: calaverite, gold, sylvanite	Austral, Braz, Can 2, Chile, Cho, Col, Gold C, India, Mex, New G, New Z, Peru, Phil Is, Porto R, Rho, Ruman, Rus 3, S Afr 1, Swed, U S	Alas 2, Ariz, Calif 1, Colo, Ga, Ida, Mont, Nev, N M, Ore, S C, S D 3, Tenn, Utah, Wash
Graphite: found in granites, schists, gneisses, and crystalline limestones	Aus, Bul, Can, Cey, Cho 1, Czec, Eng, Fr, Ger, India, It, Jap, Madag, Mex, New Z, Nor, Rus, S Afr, Sp, Swed, Switz, U S	Ala, Alas, Ark, Calif, Colo, Conn, Ga, Ida, Mass, Mich, Mont, N H, N J, N M, N Y, N C, Ohio, Ore, Pa, R I, S C, S D, Tex, Vt, Wash, Wis, Wyo
Gypsum: chiefly bedded deposits in sedimentary formations	Alg, Arg, Aus, Austral, Braz, Can 2, Chile, China, Cuba, Cyp, Egy, Fr, Ger, Gr, India, It, Lat, Mex, N Cal, Pal, Peru, Pol, Rus, Sp, Unit K 3, U S 1	Ala, Alas, Ariz, Ark, Calif 5, Colo, Ida, Ia 3, Kan, La, Mich 2, Mont, Nev, N M, N Y 1, Ohio, Okla, Ore, S D, Tex 4, Utah, Va, Wyo
Helium: from natural gas	Can, U S	Colo, Kan, Ohio, Okla, S D, Tex 1, Utah
Indium: from zinc ores or commercial zinc		Mont
Iodine: marshite, miersite, and from salt brines, kelp, and coal	Chile, E In, Fr, India, Ire, It, Jap, Mex, Nor, Pol, Rus, Scot, Unit K, U S	Calif, La, Mich
Iridium: iridosmine, platinum ores	See "platinum."	See "platinum."
Iron: franklinite, hematite, limonite, magnetite, pyrite, siderite, turgite	Alg, Austral, Belg, Braz, Bul, Chile, Cuba, Czec, Fr 2, Ger, Gr, Gr Brit, Guat, Hung, India, It, Jap, Mala, Mer, Newf, Nor, Phil Is, Pol, Rus 3, Sp, Swed 4, Switz, U S 1	Ala, Ariz, Calif, Colo, Ga, Ind, Ia, Mich, Minn 1, Mo, Nev, N J, N Y, N C, Okla, Pa, S C, Tenn, Tex, Utah, Va, Wash, Wis, Wyo
Kaolin: kaolinite	Can, China, Czec, Fr, Ger, Gr Brit, U S	Ala, Ark, Calif, Colo, Del, Fla, Ga 1, Ida, Ind, Minn, Mo, Mont, Nev, N C, Ohio, Ore, Pa, S C, Tenn, Utah, Va, Vt, Wash
Kyanite: from gneiss, schist, pegmatite, and quartz veins	Br In, Switz	Ariz, Calif 1, Conn, Ga, Mass, Md, N C, Pa, S C, Va, Wash
Lead: anglesite, corussite, galena, pyromorphite	Arg, Austral, Belg, Bur, Can, China, Fr, Ger, Gr Brit, It, Jap, Mex 2, Peru, Pol, Rus, SW Afr, Sp, Tun, U S 1	Alas, Ariz, Ark, Calif, Colo, Ida 2, Ill, Ia, Kan, Ky, Mo 1, Mont, Nev, N M, N Y, N C, Okla 4, Ore, Tenn, Tex, Utah 3, Va, Wash, Wis
Lignite: occurs in bedded deposits in late geologic formations	Aus, Austral, Bul, Can, Czec, E Afr, Fr, Ger 1, Hung, Indo-Ch, It, Jap, New Z, Ruman, Rus, Sp, Turk, U S, Yug	Ala, Ark, Mont, N D 1, S D, Tenn, Tex

Metal, mineral, or mineral substance and some minerals, ores, and other sources	Principal and some secondary world supplies of ores and minerals	Principal, secondary, and some minor U.S. supplies of ores and minerals
Lithium: amblygonite, lepidolite, spodumene	Austral, Braz, Can, Czec, Fr, Ger, Madag, Port, Sp, SW Afr, Swed, U S	Calif, Conn, Mass, Me, N M, N C, S D, Wyo
Magnesium: brucite, dolomite, langbeinite, magnesite, sea water and brines	Aus, Can, Czec, <i>Fr, Ger 1, Gr, India, It, Jap, Nor, Rus, Swed, Switz, Unit K, U S</i>	Magnesium sources widely distributed. Production in following states: Calif, La, Mich, Nev, N J, N M, Ohio, Tex, Wash
Manganese: braunite, psilomelane, pyrolusite, wad	<i>Braz, Chile, China, Costa R, Cuba, Czec, E In, Egy, Gold C, Hung, India 2, It, Jap, Mala, Mor, Phil Is, Rus 1, S Afr, U S</i>	Ala, Ariz, <i>Ark 3, Calif, Colo, Ga, Ida, Mass, Mich, Minn, Mont 1, Nev, N J, N M, N C, Okla, S D, Tenn 2, Tex, Utah, Va, Wash, West Va</i>
Mercury: calomel, <i>cinnabar</i> , mercury, montroydite	Alg, Aus, Austral, Bol, Can, China, Czec, <i>It 1, Jap, Mex, New Z, Rho, Ruman, Rus, Sp 2, Turk, U S</i>	Alas, Ariz, <i>Ark, Calif 1, Ida, Nev, Ore 2, Tex, Utah, Wash</i>
Mica: biotite, lepidolite, muscovite, phlogopite	Arg, Austral, Bol, <i>Braz 3, Can, Cey, Guat, India, It, Jap, Madag, Nor, Peru, Rho, Ruman, Rus, S Afr 2, Swed, Tan, U S 1</i>	Ala, Ariz, <i>Calif, Colo, Conn, Ga, Ida, Me, Nev, N H, N M, N C, S C, S D, Tex, Va, Vt, Wash, Wyo</i>
Mineral pigments (natural): ocher, sienna, umber	Cyp, Fr, India, It, S Afr, Sp	Calif, <i>Ga, Ill, N J, N Y, Ohio, Pa, Tenn, Tex, Va</i>
Molybdenum: molybdenite, molybdite, wulfenite	Austral, Bur, <i>Can, Chile, China, Gr, It, Jap, Mex, Mor, Nor, Peru, Ruman, Rus, Turk, U S 1, Yug</i>	Ariz, <i>Colo 1, Me, N M, Tex, Utah, Wash</i>
Monazite: obtained from metamorphic rocks and beach sands	Afr, Austral, <i>Braz, Cey, Gr Brit, India 1, Mala, Nor, U S</i>	Colo, Fla, Ga, Ida, N C, Ore, S C, Wash
Natural gas	Ara, Bur, Can, Col, Indies, Iraq, Mex, Per, Ruman, Rus, U S, Ven	Ark, <i>Calif, Colo, Ill, Ind, Kan, Ky, La, Mich, Miss, Mont, N M, N Y, Ohio, Okla, Pa, Tex 1, W Va, Wyo</i>
Nickel: millerite, niccolite, pentlandite, from copper ores	Austral, Braz, <i>Bur, Can 1, Cuba, Egy, E In, Ger, Gr, Jap, Mor, N Cal, Nor, Rho, Rus, S Afr, U S</i>	Colo, Conn, Mo, N C, Ore
Nitrates: nitre, soda nitre, synthetic nitrates, and waste products	Arg, Bol, Can, <i>Chile 1, Egy, Fr, Ger, Gr Brit, India, It, Jap, Mex, Nor, Peru, Rus, S Afr, Turk, U S</i>	Synthetic: Ala, N Y, Ore
Niobium (columbium): columbite	Nig	Ala, Calif, Colo, Ga, Me, N M, N C, S C, S D, Va
Osmium: iridosmine, <i>platinum ores</i>	See "platinum."	See "platinum."
Palladium: <i>platinum ores</i>	See "platinum."	See "platinum."
Peat: fresh water bogs	Can, <i>East, Fin, Hol, Ire 2, It, Lith, Rus 1, Swed, Switz, U S</i>	Calif, Colo, Conn, Fla, Ind, Ia, La, Mass, <i>Me, Mich, Minn, N H, N J 2, N Y 1, Ohio, Pa 3, Tex, Vt, Wash, Wis</i>
Petroleum	Alb, Ara, Arg, Bah Is, Bur, Can, Col, Ecu, Egy, <i>E In, Fr, Ger, Iran, Iraq, Jap, Mex, Peru, Pol, Ruman, Rus 2, Sakh, Sara, Trin, U S 1, Ven 3</i>	Ark, <i>Calif 2, Colo, Ill 4, Ind, Kan, Ky, La, Mich, Miss, Mo, Mont, Neb, N M, N Y, Ohio, Okla 3, Pa, Tenn Tex 1, Utah, W Va, Wyo</i>
Phosphate: apatite, collophane, dahllite, <i>phosphate rock</i>	Alg, Ang Is, Belg, Can, <i>Chris Is, Cur, Egy, Fr, Ger, Jap, Mak Is, Mor 3, Naru 4, Nor, Pol, Rus, Seych Is, Sp, Tun 2, U S 1</i>	Ark, Colo, <i>Fla 1, Ida, Ky, Mont, Neb, Nev, N J, N Y, N D, Ore, S C, S C, Tenn 2, Utah, Va, Wash, Wyo</i>
Platinum: cooperite, <i>platinum</i> , sperrylite	Austral, Belg Con, <i>Can 1, Col, E In, Eth, India, It, Jap, New Z, Nor, Pan, Papua, Phil Is, Rus 2, S Afr, Sierra Leon, Suma, U S</i>	Alas 1, <i>Calif, Mont, Ore, Wyo</i>

Metal, mineral, or mineral substance and some minerals, ores, and other sources	Principal and some secondary world supplies of ores and minerals	Principal, secondary, and some minor U.S. supplies of ores and minerals
Potassium: <i>alunite, carnallite, kainite, leucite, polyhalite, sylvite</i> , and from cement and other source	Afr, Austral, <i>Fr 2, Ger 1</i> , India, It, Jap, Pal, <i>Pol, Rus, Sp, U S</i>	<i>Calif</i> , Md, Neb, N J, <i>N M</i> , Tex, Utah, Wyo
Quartz (rock crystal)	Aus, Braz, Czech, Eng, Fr, India, Ire, It, Madag, Mex, Ruman, Rus, Scot, Switz, U S	Ariz, Calif, Mass, Me, N H, N J, N Y, N C, Ohio, Ore
Rare earth minerals: cerium, erbium, lanthanum, neodidymium, thorium, yttrium	Braz, Cey, India, Madag, Nor, Swed, U S	Colo, Fla, N C, Ore, S C, Tex, Wash
Rhodium: platinum ores	See "platinum."	See "platinum."
Ruthenium: <i>iridosmine, laurite, platinum ores</i>	See "platinum."	See "platinum."
Salt: brines, halite, sea water	Arg, Austral, Belg, Braz, Can, <i>China 3</i> , Czech, Egy, Fr, <i>Ger 4</i> , Guat, Hol, <i>India, It</i> , Jap, Mex, Pol, Ruman, <i>Rus 2</i> , Sp, Tun, <i>Unit K, U S 1</i> , Yug	<i>Calif</i> , Colo, Ida, <i>Kan 4, Mich 1</i> , Nev, N M, <i>N Y 2</i> , <i>Ohio 3</i> , Okla, Ore, Pa, <i>Tex</i> , Utah, Va, W Va
Sapphires	<i>Bur</i> , India, Thail	Mont
Serpentine: <i>ancylite, antigorite, chrysotile</i>	Aus, Austral, Can, Fin, It, Nor, Sax, Sil, Switz, U S	Ariz, Calif, Conn, Ga, Mass, Md, N J, N Y, N C, Ore, Pa, R I, Tex, Vt, Wash
Silver: <i>argentite, cerargyrite, proussite, pyrargyrite, silver, stephanite, tetrahedrite</i>	Arg, <i>Austral, Bol</i> , Br Gui, <i>Bur, Can 3</i> , Chile, Ecu, E-In, Ger, <i>Jap, Mex 1</i> , New G, New Z, <i>Peru</i> , Phil Is, Rho, Ruman, Rus, S Afr, Tasm, <i>U S 2</i>	Alas, <i>Ariz, Calif, Colo</i> , Ga, <i>Ida 1</i> , Ill, Mich, Mo, <i>Mont 2</i> , Nev, N M, N Y, N C, Ore, Pa, S C, S D, Tenn, Tex, <i>Utah 3</i> , Va, Wash, Wyo
Sodium carbonate: trona	Ara, Can, Chile, E Afr, Egy, Ger, Hung, India, Mex, Per, Peru, Ruman, Rus, S Afr, Sp, Ven	Ariz, <i>Calif</i> , Neb, Nev, N M, N D, Ore, Tex, Utah, Wash, Wyo
Sodium sulphate: <i>glauberite, mirabilite, thenardite</i>	Belg, Can, Chile, Fr, Ger, Hol, It, Pol, Unit K	Ariz, Calif, La, Nev, N M, N D, Ore, Tex, Utah, Wash, Wyo
Strontium: <i>celesite, strontianite</i>	Aus, Can, Egy, <i>Eng</i> , Fr, Ger, India, Mex, Rus, Scot, Sic, Switz, <i>Tun, U S</i>	Ariz, Ark, Calif, Kan, Mich, N Y, Ohio, Okla, Pa, Tenn, Tex, Utah, Wash
Sulphur: <i>pyrite, sulphur</i> , from natural gas and smelter gas	Bol, Can, Chile, E In, Fr, Ger, Gr, <i>It 2</i> , <i>Jap</i> , Mex, Nor, Peru, Rus, Sp, Turk, <i>U S 1</i>	Alas, Ariz, Ark, Calif, Colo, <i>La</i> , Me, Mo, Mont, Nev, N M, N Y, Tenn, <i>Tex 1</i> , Utah, Va, Wash, Wis, Wyo
Talc and soapstone	Aus, Austral, Bav, Braz, Can, <i>China 2</i> , Fin, <i>Fr</i> , Gr, India, <i>It</i> , Jap, <i>Nor</i> , Ruman, Rus, S Afr, Sp, Swed, Switz, Ura, <i>U S 1</i>	Ala, <i>Calif</i> , Conn, Ga, Mass, Md, Mont, Nev, N H, N J, <i>N Y 1</i> , <i>N C 2</i> , Ore, Pa, R I, Va, <i>Vt, Wash</i> , Wis
Tantalum: <i>columbite, manganotantalite, tantalite</i>	Austral, Belg Con, Braz, U S	Ala, Calif, Colo, Ga, Me, N M, N C, S C, S D, Tex
Tin: <i>cassiterite, stannite</i>	Arg, Austral, <i>Belg Con, Bol 3</i> , <i>Bur, Cina</i> , <i>E In 2</i> , Ger, Gi Brit, Indo-Ch, Jap, <i>Mala 1</i> , Nig, Rus, S Afr, Thail, U S	Ala, <i>Alas</i> , Nev, N M, N C, S C, S D, Tex
Titanium: <i>brookite, ilmenite, octahedrite, rutile, titanite</i>	Afr, Arg, Aus, Austral, Braz, Can, Egy, Fr, <i>India 1</i> , Jap, Madag, <i>Mala</i> , Mex, <i>Nor</i> , Port, Rus, Switz, U S	Ark, Calif, Colo, Fla, Ga, Minn, N J, N Y, N C, R I, S C, Tex, <i>Va</i> , Wyo
Tripoli: from disintegrated siliceous limestone	U S	Ark, Calif, Ga, <i>Ill 1</i> , Ia, Ind, Ky, Miss, <i>Mo</i> , Nev, <i>Okla</i> , Pa, Tenn, Tex

Metal, mineral, or mineral substance and some minerals, ores, and other sources	Principal and some secondary world supplies of ores and minerals	Principal, secondary, and some minor U.S. supplies of ores and minerals
Tungsten: ferberite, hubnerite, scheelite, wolframite	Arg, Austral, <i>Bol</i> , Braz, Bur, Chile, <i>China</i> 1, Cuba, Gr Brit, Indo-Ch, Jap, <i>Mala</i> , Mex, Peru, Port, Sp, Tasm, Thail, <i>U S</i>	Ariz, <i>Calif</i> 1, <i>Colo</i> , Ida, Mo, Mont, <i>Nev</i> 2, S D, Tex, Utah, <i>Wash</i> , Wyo
Uranium and radium: autunite, <i>carnotite</i> , uranite	Austral, Belg Con, Can, Czec, E Afr, Eng, Ger, Madag, Nor, Ruman, Rus, S Afr	Ariz, <i>Colo</i> , Conn, N C, N D, S D, Tex, Utah
Vanadium: ilmenite, roscoelite, vanadinite, from phosphate rock, and from titaniferous iron ores	Arg, Aus, India, It, <i>Mex</i> , Mor, <i>Peru</i> 1, <i>Rho</i> , Rus, <i>S Afr</i> 3, Sp, <i>U S</i> 2	Ariz, <i>Colo</i> 1, <i>Ida</i> , Minn, Nev, N M, N Y, S D., <i>Utah</i>
Vermiculite: jefferisite	Afr, U S	Ariz, <i>Colo</i> , Ga, <i>Mont</i> , Nev, N C, S C, Tex, Wyo
Zinc: <i>calamine</i> , <i>smithsonite</i> , <i>sphalerite</i> , willemite, zincite	Arg, Austral, <i>Belg</i> , Boh, Bol, Bur, <i>Can</i> , Fr, <i>Ger</i> , Gr Brit, Hol, It, Jap, Mex, Nor, <i>Pol</i> , <i>Rho</i> , Rus, <i>U S</i> 1, Yug	Ariz, Ark, Calif, <i>Colo</i> , Ida, Ill, Ia, <i>Kan</i> , Ky, Mo, <i>Mont</i> , Nev, <i>N J</i> , N M, N Y, <i>Okla</i> 1, Tenn, Utah, Va, Wash, Wis
Zirconium: zircon	<i>Austral</i> , <i>Braz</i> , Cey, <i>India</i> , Thail	Calif, Fla, N C, Ore