

MINERALS AND THEIR USES

Metal/Resource	Common Ores	Uses
(*Found in Alaska in Potential Resource Quantities)		
Aluminum	Bauxite	light weight metal gears and parts, foil and containers for food, medicine, cosmetics
*Antimony	Stibnite	type metal, lead-free solder, paints, semiconductors, ceramics
*Barium	Barite	medicine, drilling mud
*Beryllium	Beryl	aerospace structural steel, springs, electrical contacts, non-sparking tools
*Bismuth	Native Bismuth, Bismuthenite	Casting metal, low temp alloys for fire safety devices
*Carbon	Graphite	pencil lead, electrodes, lubricant, rocket nozzles
*Chromium	Chromite	stainless steel, chrome plating to inhibit corrosion, pigment
*Clay	Kaolinite (China Clay)	cosmetics, ceramics, plaster, sculpture
*Cobalt	Eyrthrite, Cobaltite	magnetic alloys, high-temperature alloys, pigment
*Copper	Chalcopyrite, Chalcocite, Bornite	electronics, plumbing, coinage, brass, bronze, batteries
*Fluorite	Fluorite	hydrofluoric acid (etching glass and silicon chips), opaque glass, medicinal
*Garnet	Garnet	gemstone, abrasive (sand paper)
*Gold	Native Gold	jewelry, electrical circuits, UV protection plating, corrosion protection, coinage
*Gypsum	Gypsum (Selenite)	plaster, wall board for construction, plaster of Paris, Portland cement, absorbent
*Iron	Magnetite, Hematite	steel, metal alloys, fertilizer, medicine
*Lead	Galena	batteries, radiation protective sheathing, weight and ballast, solder, pewter, ammunition
*Limestone	Limestone (and Marble)	Portland cement, decorative stone, building stone
Lithium	Lepidolite	high-temperature insulation, batteries, pigment, high-temperature alloys
Magnesium	Magnesite, Dolomite	pyrotechnics (flares and fire works), medicines, cosmetics, structural alloys, fertilizers
*Manganese	Pyrolusite, Psilomelane	alloy with steel for structural strength (I-Beams) and hardness
*Mercury	Cinnabar	thermometers, trip switches, thermostats, barometers, vapor lamps, batteries
*Molybdenum	Molybdenite	alloy with steel for increased flexibility and strength, lubricant
*Nickel	Pentlandite, Niccolite	protective electroplating, alloy with steel for strength, corrosion inhibitor, coinage
*Niobium	Columbite	arc welding, steel alloys, superconductivity research, small electronics
*Osmium	Native Osmium	platinum alloys, pen points, phonograph needles, jewelry
*Palladium	Native Palladium	non-magnetic watch parts, surgical instruments, jewelry, electric contacts
*Platinum	Native Platinum	high temp non-reactive laboratory ware, surgical instruments, catalytic converters, jewelry
Potassium	Sylvite	glass, soap, explosives, fertilizer, medicines, photography, pigment, preservatives
Rock Salt	Halite	salt
Silica	Quartz	glass and ceramics, abrasive, silicones
*Silver	Argentite, Pyrargyrite, Native Silver	jewelry, coinage, photography, dental and soldering alloys, electrical contacts
Strontium	Strontianite, Celestite	pyrotechnics, pigment, alloys, small nuclear power sources as Strontium 90
*Tantalum	Tantalite, Microlite, Columbite	light bulb filaments, lightning arresters, surgical instruments, nuclear reactor parts
*Thorium	Thorite	ceramics, gas mantles, magnesium alloys, nuclear fuels
*Tin	Cassiterite	corrosion resistant alloys, soft solder, type metal, pewter, bronze
*Titanium	Ilmenite, Titanite	low weight, high strength, high temperature alloys, paint pigment
*Tungsten	Wolframite, Scheelite	high strength structural material, electrical and lamp filaments, glass to metal seal
*Uranium	Uranite, Pitchblende, Carnotite	nuclear fuel, coloring agent in ceramics
Vanadium	Vanadinite	rust resistant high-speed tools, high strength and hardness alloys, catalyst
Zeolite	Numerous Zeolite Minerals	water softening, filters, absorbents
*Zinc	Sphalerite	brass, solder, galvanizing iron (prevent rust), medicine, pigment, wood preservative