## Rare Earth Materials/Metals

As a leader in design and worldwide manufacture of I/O interconnect products, NorComp is continually monitoring the industry for any concerns that may affect our business and our customer relationships. We understand the concerns involved with the restrictions of exporting Rare Earth Materials and the affects it could impose on our Supply Chain.

To this point, NorComp has reviewed our lists of components and materials that we use and receive from outside sources. It does not appear that we are currently using any of the Rare Earth Materials listed below in our Supply Chain.

<u>Z</u>	Symbol	Name	Selected Applications
21	Sc	Scandium	Light aluminum-scandium alloy for aerospace components, additive in Mercury-vapor lamps.
39	Y	Yttrium	Yttrium-aluminum garnet (YAG) laser, yttrium vanadate (YVO4) as host for europium in TV red phosphor YBCO high- temperature superconductors.
57	La	Lanthanum	High refractive index glass, flint, hydrogen storage, battery-electrodes, camera lenses, fluid catalytic cracking catalyst for oil refineries.
58	Ce	Cerium	Chemical oxidizing agent, polishing powder, yellow colors in glass and ceramics, catalyst for self cleaning ovens, fluid catalytic cracking catalyst for oil refineries, ferrocerium flints for lighters.
59	Pr	Praseodymium	Rare-earth magnets, lasers, core material for carbon arc lighting, colorant in glasses and enamels, additive in didymium glass used in welding goggles, ferrocerium firesteel (flint) products.

60	Nd	Neodymium	Rare-earth magnets, lasers, violet colors in glass and ceramics, ceramic capacitors.
61	Pm	Promethium	Nuclear batteries
62	Sm	Samarium	Rare-earth magnets, lasers, neutron capture, masers
63	Eu	Europium	Red and blue phosphors, lasers, mercury- vapor lamps, NMR relaxation agent.
64	Gd	Gadolinium	Rare-earth magnets, high refractive index glass or garnets, lasers, X-ray tubes, computer memories, neutron capture, MRI contrast agent, NMR relaxation agent.
65	Tb	Terbium	Green phosphors, lasers, fluorescent lamps
66	Dy	Dysprosium	Rare-earth magnets, lasers
67	Но	Holmium	Lasers
68	Er	Erbium	Lasers, vanadium steel
69	Tm	Thulium	Portable X-ray machines
70	Yb	Ytterbium	Infrared lasers, chemical reducing agent
71	Lu	Lutetium	PET Scan detectors, high refractive index glass.