Common Applications of Different Surfactant Types

Cationics:

Water Repellancy
Fabric Softeners
Herbicides and biocides
Adhesion promoters in asphalt
Corrosion inhibitors for metals

Pigment dispersants
Hair conditioners
Ore flotation agents
Emulsifying agents for acidic applications

Anionics:

Detergents in lubricating oils Soap bars Foaming agents in toothpastes Detergency in alkaline applications High foaming detergents
Wetting Agents in paints, printing inks,
agricultural emulsions
Low temperature laundry detergents
Food emulsions
Toothpaste detergent

Nonionics:

Foam-control Agents
Oil-in-Water emulsification for paints
Detergents in high electrolyte applications
Wetting agents

Pigment dispersants in latex paints
Dishwasher rinsing aids
Food and pharmaceutical emulsifiers

Generalizations:

Anionics and cationics are mutually incompatible.

Nonionics are compatible with cationics, may be incompatible with anionics.