

# Compressor Oil Compatibility Guide For Process Gas and Materials

### **Purpose**

The information presented in this bulletin is intended only as a general guide and lists common materials and their levels of compatibility with AMSOIL compressor oils/coolants. Changes in the manufacture, environment and application may cause unpredictable effects in a material's compatibility. Process gases compatibility is listed on the reverse side.

#### **Compatibility Level Definitions**

**Compatible:** There is generally no negative effect on the lubrication performance or the material in question.

Marginal: The effect on the materials/lubricant is dependent on their use and composition, which can vary. An evaluation of the specific material and the specific operating conditions should be done prior to use.

Not recommended: Materials/lubricant which have been found to be adversely affected under most circumstances and should not be considered for use where excessive contact with the subject lubricant and material is involved.

### **AMSOIL PC Series Compressor Oils**

**Compatible:** Petroleum oils, most synthetic oils, most seals, paints and plastics used in compressors.

**Not recommended:** As a replacement for systems using polyglycol based compressor oils such as Sullube 32, Ingersoll-Rand SSR Ultra-coolant or for silicon based oils such as Sullair 24 KT.

PC Series compressor oils are also not recommended for use with PVC air lines and polycarbonate bowls (unless the bowls are metal covered).

# AMSOIL SEI Synthetic Ester Compressor Oil

**Compatible:** Petroleum oils, most synthetic oils, as well as seals, paints and plastics as detailed on the following compatibility chart. Compatible with and recommended as a replacement for polyglycol type compressor oils such as Sullube 32 and Ingersoll-Rand SSR Ultra-coolant.

**Not recommended:** For use with silicon compressor oils such as Sullair 24 KT or for use with PVC air lines and polycarbonate bowls (unless the bowls are metal covered).

# AMSOIL SEK Synthetic Ester Compressor Oil

Compatible: Most petroleum, synthetic oils, seals, paints and plastics as detailed on the following compatibility chart.

Not Recommended: For use with silicon compressor oils such as Sullair 24 KT, or Sullube 32 and Ingersoll-Rand SSR Ultra-coolant, or for use with PVC air lines and polycarbonate bowls (unless the bowls are metal covered).

# **AMSOIL SEI and SEK Compatibility Chart**

Compatible	Marginal	Not Recommended
Paints  Epoxy Baked phenolic Oil-resistant alkyd Two-component urethane Moisture-cured urethane	Paints  Phenolic Single-component urethane Industrial latex	Paints  Acrylic Latex (household) Vinyl (PVC) Varnish Lacquer Polyurethane
Plastics Nylon Fluorocarbon (Teflon®) Polyacetal (Delrin®, Celcon®) Polybutylene terephithalate (PBT) Polypropylene (high density)	Plastics Polyurethane Polyethylene Phenylene oxide (Noryl) Polycarbonate (Lexan) Polysulfone	Plastics Polystyrene Polyvinyl chloride ABS (acrylonitrile/butadiene/styrene) Polycarbonate (bowls)
Rubbers/Seals Fluorocarbon (Viton®) Nitrile rubber (Buna-N, NBR)* Fluorosilicone rubber Polysulfide (Thiokol) Polyester (Hytrel)  *High nitrile (>36% acrylonitrile)	Rubbers/Seals Nitrile (Buna-N, NBR)* Polyurethane Ethylene-propylene teropolymer (EPDM) Epichlorohydrin Polyacrylate rubber Silicone rubber  *Medium nitrile (30-36% acrylonitrile)	Rubbers/Seals Polychloroprene (Neoprene) Natural rubber Styrene-butadiene rubber (SBR, Buna-S) Butyl rubber Chlorosulfonated polyethylene Nitrile rubber (Buna-N, NBR)* *Low nitrile (<30% acrylonitrile)
Metals Steel and alloys Aluminum and alloys Copper and alloys Tin Nickel Inconel, Monel	Metals Cadmium Zinc Lead	Metals

### Process Gases Suitable for Use with SEI, SEK and PC Series Oils

#### Inert or Reducing Gases

Nitrogen, hydrogen, helium, carbon monoxide, carbon dioxide (dry).

#### **Hydrocarbon Gases**

Ethylene, ethane, methane, propane, butane, propylene, butylene, natural gas, benzene, butadiene.

#### **Other Gases**

Furnace (crack gas), hydrogen sulfide (dry), synthetic gas, sulfur dioxide.

### Process Gases Not Recommended

Oxygen, halogen gases, hydrogen chloride, ammonia.

For further information on other gases, contact the AMSOIL Industrial Lubricants Department.

