



## Lubricants

### Benefits

- Chemically stable
- Thermally stable
- Extremely low wax content
- Low pour and floc points
- High dielectric strength

## STAR C Refrigeration Oil

**STAR C** is a high quality refrigeration oil made from low-wax naphthenic base oils. It is designed for use in ammonia refrigeration systems, such as those found in cold-stores and icerinks, and chlorinated fluorocarbon (CFC) refrigeration systems.

**STAR C** has proven wear-prevention ability, demonstrated in tests by refrigeration pump manufacturers. Wax crystals at low temperatures can block expansion valves and interfere with the proper operation of the refrigeration system. The use of naphthenic base oils, with their naturally low wax content, ensures excellent low temperature performance, as shown by their pour and floc points.

In many systems, where the pump and motor are immersed in the refrigerant and oil, the oil must also act as an electrical insulator. **STAR C** have excellent insulating ability, shown by their dielectric strength, but care must be taken to keep oils in their sealed containers until needed. Once the container has been opened and if any oil remains in the container, it must be kept tightly closed to prevent atmospheric humidity from contaminating the oil and reducing its dielectric strength.

The higher viscosity grade of **STAR C** is suitable for use in CFC refrigeration systems where the CFC and the oil are miscible: The refrigerant tends to dilute the lubricant, so that a higher viscosity grade oil can be used, for the best lubrication. The lighter grade of **STAR C** is suited to ammonia refrigeration systems since the oil and the refrigerant do not mix together and the oil has to have the best possible low temperature abilities without relying on the refrigerant to thin it out.

CFCs have been shown to deplete atmospheric ozone and their production will end in 1995. In their place less harmful hybrid refrigerants, called halogenated chloro-fluorocarbons (HCFC), have been introduced as an interim measure. **STAR C** can be used with the HCFC refrigerants. The long-term replacement refrigerants are halogenated fluorocarbons (HFC): **STAR C** is NOT suitable for use with HFC refrigerants.

# STAR C

## Typical performance results

NAME	STAR C 3G	STAR C 4G
ISO GRADE	32	68
VISCOSITY (D-445)		
cSt @ 40°C	33	62
cSt @ 100°C	4.5	6.0
VISCOSITY INDEX	45	35
POUR POINT (°C) (D-97)	-40	-34
FLASH POINT (°C) (D-92)	168	180
FLOC POINT (°C)	-54	-48
ANILENE POINT (°C)	74	77
DIELECTRIC STRENGTH (D-877) VOLTS	30,000+	30,000+
TOTAL ACID NUMBER (D-974)	0	0
SPECIFIC GRAVITY	0.91	0.92

## Available sizes & part numbers

	946 ml. (1 US qt)	3.78 L (1 US Gal)	18.9 L (5.0 US Gal)	205 L (54.2 US Gal)	Bulk
STAR C 3G					
STAR C 4G			F0085340	F0019050	

Check with sales representative or website for the latest product approvals.



Lubricants

[www.irvinglubricants.com](http://www.irvinglubricants.com)