

# SynCold<sup>®</sup> DRA H Series

Refrigeration Compressor Lubricant

## Introduction

The SynCold<sup>®</sup> DRA H series is a high-performance naphthenic lubricant designed for commercial, industrial refrigeration, and air conditioning compressors. Developed specifically for applications using ammonia as a refrigerant, it contains minimal wax content, resulting in low pour points and excellent fluidity at very low temperatures. Additionally, it keeps the evaporator tubes clean, thereby improving heat transfer and reducing maintenance downtime. With good chemical stability, it is suitable for cylinder and bearing lubrication.

SynCold<sup>®</sup> DRA H lubricant is designed for standard factory filling of industrial refrigeration equipment, as well as for OEM modification operations. It possesses the unique advantage of low-temperature performance typical of naphthenic products, with notable features such as "sludge dissolution ability" and "varnish film inhibition", making the refrigeration equipment highly adaptable to both high and low temperature environments.

Naphthenic lubricants are not recommended for use with HFC refrigerants due to their miscibility with the refrigerant.

Test results of refrigerator oil ammonia resistance (DIN51538) demonstrate that SynCold<sup>®</sup> DRA H exhibits good chemical stability when used with R717 refrigerant and has no adverse effects on metals and rubber.

## Applications and Compressor Types

- R717 (ammonia), hydrocarbon refrigerants (e.g., R290), R744 (CO2)
- Reciprocating and Screw-type compressors

## Features

Features	Benefits
Low wax content	Excellent low-temperature fluidity and improved evaporator heat transfer for optimal system efficiency
Good Chemical Stability	Long service life, reduced downtime, and lower maintenance costs
Multipurpose Lubricant	Suitable for lubrication of cylinders and bearings, reducing lubricant inventory
Wide range of Viscosity Grade	Meets viscosity requirements for a wide range of equipment and applications
Seal Compatibility	Long seal life, reducing shaft seal leakage
Food Safety Grade	NSF (H2) certified



## Specifications

Compliance standards: GB/T16630-2012

Meet the following standards:

- (DIN) DIN51503-1, German Society of Standardization
- (JISC) JIS K2211, Japanese Industrial Standards Survey (JISC)
- BS 2626, The British Standards Institute (BS)

## Properties

Product Name	DRA32H	DRA46H	DRA68H	Test Method
ISO viscosity grade	32	46	68	GB/T 3142
Viscosity @40° C, mm <sup>2</sup> /s	32.5	46.5	68.5	GB/T 265
Color	<0.5	<0.5	<0.5	GB/T 6540
Density @20° C, kg/m <sup>3</sup>	897	899	896	SH/T 0604
Flash point, ° C	175	200	210	GB/T 3536
Pour point, ° C	-42	-39	-33	SH/T0886
Acid value, mg KOH/g	<0.02	<0.02	<0.02	GB/T 4945
Extreme pressure (Falex) Failure load, N	2650	2850	2930	SH/T 0187
Oxidation Stability (PRVOT), min	>500	>500	>500	ASTM D2272
Ammonia resistance (120° C, 168h, Rich ammonia), Color number	0.5	0.5	0.5	NB/SH/T 0937

SynCold® DRA H Series is available in various viscosities to meet user specific needs. Additional information is available upon request.

## Health and Safety

Refer to the Material Safety Data Sheet (MSDS) on the official website for health and safety information.

## Package size

200L drums, 20L pails, 10L pails, 4L containers, 1L bottles

