

# Technical Data Sheet

## TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic

### Product Description

TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic is made from high quality, shear-stable 100% synthetic USDA H1 authorized base oils. TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic provides long vacuum pump life through reduced component wear, corrosion protection, water resistance and lubricant breakdown resistance. TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic reduces maintenance costs by extending drain intervals and lowering labor and used-product disposal requirements.

### Synthetic Base Oil Technology

TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic is formulated using a synergistic blend of 100% synthetic base oils with the most advanced food-grade allowable additive technology, resulting in a fluid of unparalleled lubricating performance. The high viscosity index, low pour point, low volatility and prolonged thermal stability allow for use in a wide operating temperature range. This oil minimizes carbon buildup, provides clean performance and exhibits low frictional characteristics. Its superior formulation has demonstrated increased operational efficiency, reduced energy consumption and lower operating temperatures.

### Oil Additives — Performance Driven

The antifoam agents stop unwanted foaming and air entrainment. Corrosion inhibitors prevent rust and corrosion caused by water and process contaminants, and oxidation inhibitors extend lubricant life and prevent carbon formation. TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic is fortified with premium USDA H1-authorized ashless, non-detergent additives that are for vacuum pump applications where critical incidental food-contact integrity is mandated. TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic increases compressor serviceability and lengthens vacuum pump component life.

### Stable in the Presence of Water

TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic exhibits very good hydrolytic stability and readily separates from water, preventing acid formation and unwanted oil/water emulsions. These features allow water to be easily drained from the sump and extend the life of the lubricant.

### Safety Advantage

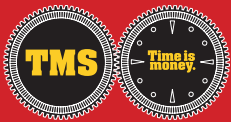
TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic has higher flash, fire and auto-ignition points than competitive petroleum oils\*. Also, its resistance to carbon formation and the ashless additive system minimize the incidence of deposits as ignition-promoting hot spots.

### Application Recommendation

TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic is recommended for Vacuum Pumps and for use in single and multistage rotary screw, vane, centrifugal and reciprocating compressor crankcases and cylinders, and other compressor applications that require ISO VG 100.

TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic is recommended for use in a wide temperature range, from 20°F above the pour point to 220°F (104°C) discharge temperature.

TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic may be used up to 6,000 hours for many vacuum pump applications\*\*, subject to operating conditions and maintenance practices. Monitoring by oil analysis at 500-hour intervals is recommended.



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**TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic** is compatible with petroleum oils, most synthetic oils<sup>\*\*\*</sup>, and almost all seals, paints and materials commonly used in vacuum pumps. It is suggested that the vacuum pump be thoroughly drained and cleaned if warranted, and the filter be changed prior to filling with the new lubricant. Cleaning should be done in accordance with manufacturer's recommendations.

- \* **TMS Vacuum Pump Oil ISO 100 Food Grade • Full Synthetic** has a high fire point; however, it cannot be considered nonflammable.
- \*\* Where discharge temperature exceeds 205°F (96°C), lubricant life expectancy is reduced.
- \*\*\* Not compatible with silicone or polyglycol fluids such as Sullair 24KT<sup>®</sup>, Sullube 32<sup>®</sup> and Ingersoll-Rand SSR Ultra Coolant<sup>®</sup>.

## Typical Data

Property	ISO 100	Method
Viscosity @ 40°C, cSt	103.3	ASTM D 445
Viscosity @ 100°C, cSt	14.0	ASTM D 445
Viscosity Index	137	ASTM D 2270
ISO Viscosity Grade	100	ASTM D 2422
SAE Viscosity Grade	30	SAE J300
Specific Gravity	0.8448	ASTM D 1298
Pour Point, °F (°C)	-44 (-42)	ASTM D 97
Flash Point, °F (°C)	464 (240)	ASTM D 92
Fire Point, °F (°C)	573 (300)	ASTM D92
Copper Strip Corrosion	1a	ASTM D 130
Rust Prevention Characteristics		ASTM D 665
Method A Distilled Water	Pass	
Method B Syn. Sea Water	Pass	
Foaming Characteristics		ASTM D 892
Sequence I	0/0 (10s)	
Sequence II	2/0 (20s)	
Sequence III	0/0 (10s)	
Water Separability	40-40-0 (15)	ASTM D 1401
Four-Ball Wear, mm	0.40	ASTM D 4172
AGMA Classification	3S	
Color	Water white	
NSF Reg./Category Code	Applied for/H1	

## Performance Features:

- Antifoam and Antiwear protection
- Rust and Oxidation Inhibited
- Suitable for use in Rotary Screw, Vane, Centrifugal and Reciprocating Compressors
- Combines Advantages of USDA H1 PAO Base Oils and USDA H1-Authorized Performance Additives
- Excellent Compressor Component Compatibility
- Excellent Water Demulsibility