



*"The First in Synthetics"®*

## **Industrial Synthetic Lubricants**

### **PRODUCT DESCRIPTION**

AMSOIL TBI hydraulic oil is a premium lubricant designed to biodegrade to its natural state when subjected to sunlight, water and microbial activity. TBI has a very low toxicity level because the oil is formulated with ashless additives that do not contain heavy metals.

AMSOIL TBI incorporates very high quality synthetic base oils that provide thermal stability, even though they are biodegradable. This oil also contains anti-wear additives that have been thoroughly tested and qualified against stringent hydraulic oil standards including Denison HF0, HF1, HF2, Vickers M-2950-S, I286-S, and Cincinnati Milacron P-68, P-69 and P-70. TBI provides optimum protection for your hydraulics because it prevents wear of the pump and prevents rust of critical components. TBI contains anti-oxidants that increase the life of the oil and it contains foam inhibitors that quickly release air from the oil.

TBI outperforms vegetable oil-type, biodegradable hydraulic oils because it is based on high quality, synthetic oil chemistry that lasts longer and withstands heat better. This ensures problem-free operation.

### **PERFORMANCE FEATURES**

- 80% Biodegradable Within 21 days (CEC L-33-T-82)
- Thermally Stable
- Resists Oxidation
- Prevents Rust and Foam
- -52°F Pour Point For Cold Temperature Performance
- Outperforms Vegetable Type Bio-Hydraulic Oils

### **APPLICATION RECOMMENDATION**

AMSOIL TBI is recommended for gear, vane and piston stationary and mobile hydraulic systems. TBI is a multi-viscosity, SAE 5W-20 oil and is recommended for use in place of either ISO-32 or ISO-46 hydraulic oils.

TBI is essentially compatible with typical hydraulic oils and small amounts of contamination (lines, residue) is acceptable. However, it is recommended that systems be drained prior to installing TBI. Excessive system contamination will minimize its biodegradability effectiveness.

## **SYNTHETIC TBI**

**ISO 32/46**

### **THERMALLY STABLE BIODEGRADABLE HYDRAULIC OIL**

- Denison HF0, HF1, HF2
- Vickers M-2950-S, I286-S
- Cincinnati Milacron P-68, P-69, P-70

TBI is especially well suited for applications where environmental contamination due to leaking or blown hydraulic lines presents an environmental hazard.

TBI has been tested and found compatible with Nitrile (Buna-N), Poly Acrylate, Fluorocarbon (Viton) and Silicone seals which are commonly found in hydraulic systems. Consult your AMSOIL sales representative or AMSOIL INC. when dealing with systems containing seals not listed.

The ability of TBI to extend drain intervals and excel in performance is subject to operating conditions and maintenance practices. Monitoring by oil analysis is recommended.

### **AMSOIL PRODUCT WARRANTY**

AMSOIL Industrial Lubricants are formulated to exceed accepted industry specifications. AMSOIL warrants that the use of its lubricants will not cause mechanical damage to any mechanically sound equipment when AMSOIL products are used in full compliance with the company's recommendations. However, the purchaser of these lubricants is responsible for determining if these specifications are adequate and proper for the intended application. The AMSOIL warranty is limited to lubricant performance consistent with indicated specifications. No additional warranty, expressed or implied, can be made.

### **AMSOIL PRODUCT AVAILABILITY**

AMSOIL products are available in 5-gallon pails, 55-gallon drums, 275-gallon totes and bulk quantities. For 275-gallon totes, please allow two to four weeks for delivery.

AMSOIL Industrial Lubricants are stocked in Superior, Wisconsin and in select regional distribution centers throughout the United States and Canada. AMSOIL will stock additional quantities of lubricants or special order products based on customer requests and regional demands. For applications and recommendations, contact your local AMSOIL industrial sales representative or AMSOIL INC.

## TYPICAL TECHNICAL PROPERTIES

### Synthetic TBI Hydraulic Oil

ISO VG — ASTM D-2422	.32/46
SAE Grade	.5W-20
Viscometrics 100°C, cSt — ASTM D-445	.7.69
Viscometrics 40°C, cSt — ASTM D-445	.40.63
Viscosity Index (VI) — ASTM D-2270	.161
Specific Gravity — ASTM D-1298	.0.9047
Density — ASTM D-1298	.7.534
Four-Ball Wear Test — ASTM D-4172 (40 kg, 1200 rpm, 75°C, 60 min.)	.0.39
Flash Point °C (°F) — ASTM D-92	.206°C (402°F)
Fire Point °C (°F) — ASTM D-92	.222°C (431°F)
Pour Point °C (°F) — ASTM D-97	-.47°C (-52°F)
Copper Strip Corrosion Test — ASTM D-130	.1A
Foam ASTM D-892	
Sequence I	.0/0
Sequence II	.0/0
Sequence III	.0/0
Demulsibility ASTM D-1401	
Oil/Water/Cuff (minutes)	.40/40/0 (25)
Dielectric Strength, KV — ASTM D887	.36KV
Biodegradability % — CEC L-33-T-82	.80

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