

## PLUTUS INDUSTRIAL GEAR OIL

### Product Description:

Plutus Industrial Gear Oils comprise a family of extreme pressure gear lubricants designed to operate over a very wide range of temperatures and conditions. These fluids possess excellent high temperature oxidation stability and superior low temperature fluidity. Plutus Industrial Gear Oils have the ability to rapidly separate from water and prevent the formation of anti-lubricating emulsions. The incorporation of special additives in Plutus Industrial Gear Oils protects equipment from rust, corrosion and foam. In addition, extreme pressure additives provide optimum protection against shock loading and offer high load carrying capabilities.

Plutus Industrial Gear Oils find applications in virtually all types of industrial settings. Some typical applications includes gear sets and oil circulating systems in steel mill, foundries, glass and bottle manufacturing plants, injection molding machines, paper mills, electrical wheel motors used in surface mining and quarries, shearing arms in underground coal mining, cement kilns, petroleum and chemical processing plants.

### Applications / Benefits:

- ▣ Excellent low and high temperature performance.
- ▣ Prevents rust and corrosion.
- ▣ Reduces galling, scuffing and welding of gear teeth.

Typical test results :

TEST DESCRIPTION	METHOD	ISO 100	ISO 220	ISO 320
<b>Extreme Pressure Properties</b> Timken Load Arm Test OK Load, lb	ASTM D-2782	60	65	60
<b>Four Ball Extreme Pressure Test</b> Load Wear Index (LWI), Kg Weld Load, Kg	ASTM D-2783	55.0 250	64.7 250	65.2 250
<b>Weld Load, Kg FZG 4 Square Gear</b> Test, Load Stage	DIN 51354	12 Pass	12 Pass	12 Pass
<b>Rust Test</b> Part A Part B	ASTM D-665 (IP135)	Pass Pass	Pass Pass	Pass Pass

Issued by HPURE Lubricant SG Tel: +65 6861 1157 [www.hpure-lube.com](http://www.hpure-lube.com)

Furnishing the information contained does not constitute a representation by HPURE Lubricants that any product or process is free from patent infringement claims of any 3<sup>rd</sup> party nor does it constitute the granting of a license under any patent of HPURE Lubricants or any 3<sup>rd</sup> party. HPURE Lubricants assumes no liability for any infringement which might arise out of the use of the product. The information and suggestions for use & application presented herein represent the best information available to us and are believed to be reliable. They should not, however, be construed as controlling suggestions, and users are urged to conduct confirmatory test to determine final suitability for their specific end users. HPURE Lubricants warranty only that its products meet the specifications which it sets for them and specifically DISCLAIMS ALL OTHER WARRANTIES relating to the products and the application thereof, EXPRESS or IMPLIED

including and not limited to warranties of MERCHANTABILITY and FITNESS.



# Product Data Sheet

## Typical Characteristics:

Test Description	Method				
SAE Viscosity Grade	SAE J 300				
ISO Viscosity Grade	-	<b>46</b>	<b>68</b>	<b>100</b>	<b>150</b>
Specific Gravity @ 15 °C	ASTM D 4052	0.868	0.870	0.873	0.882
Flash Point, °C	ASTM D 92	210	216	240	238
Pour Point, °C	ASTM D 97	-24	-21	-24	-15
Kinematic Viscosity, cSt @ 40°C	ASTM D 445	46.4	68.6	100.6	151
cSt @ 100°C	ASTM D 445	6.85	8.86	11.9	14.8
Viscosity Index	ASTM D 2270	102	102	108	100
Color	ASTM D 1500	<1.5	<1.5	<1.5	<2.0

Test Description	Method				
ISO Viscosity Grade	-	<b>220</b>	<b>320</b>	<b>460</b>	<b>680</b>
Specific Gravity @ 15 °C	ASTM D 4052	0.889	0.894	0.905	0.912
Flash Point, °C	ASTM D 92	240	242	258	260
Pour Point, °C	ASTM D 97	-12	-9	-6	-15
Kinematic Viscosity, cSt @ 40°C	ASTM D 445	226.4	333	480	670
cSt @ 100°C	ASTM D 445	19.5	24.6	30.4	48.7
Viscosity Index	ASTM D 2270	98	95	92	125
Color	ASTM D 1500	<2.5	<3.0	<3.5	<3.5

## Specifications, Approvals & Recommendations:

- AGMA 9005-E02
- DIN51517 Part 3
- ISO 12925-1 CKC/CKD
- US Steel 224

Issued by HPURE Lubricant SG Tel: +65 6861 1157 [www.hpure-lube.com](http://www.hpure-lube.com)

Furnishing the information contained does not constitute a representation by HPURE Lubricants that any product or process is free from patent infringement claims of any 3<sup>rd</sup> party nor does it constitute the granting of a license under any patent of HPURE Lubricants or any 3<sup>rd</sup> party. HPURE Lubricants assumes no liability for any infringement which might arise out of the use of the product. The information and suggestions for use & application presented herein represent the best information available to us and are believed to be reliable. They should not, however, be construed as controlling suggestions, and users are urged to conduct confirmatory test to determine final suitability for their specific end users. HPURE Lubricants warranty only that its products meet the specifications which it sets for them and specifically DISCLAIMS ALL OTHER WARRANTIES relating to the products and the application thereof, EXPRESS or IMPLIED

including and not limited to warranties of MERCHANTABILITY and FITNESS.