

Omega 615

ULTRA HIGH-PERFORMANCE AIR (& REFRIGERATION) COMPRESSOR OIL:

Based on advanced synthetic chemistry. Omega 615 provides a new performance "envelope" for compressors (including refrigeration-types) unmatched by ordinary lubricants. Its special PAO (polyalphaolefin) blend, and anti-oxidant, rust inhibited, and anti-foam formulation provides this special lubricant with unmatched performance characteristics in rotary screw-and rotary vane-type compressors, using the ISO VG 46 grade; and in conventional reciprocating compressors, using the ISO VG 100.

Omega 615 provides unparalleled oxidation stability under extended, real-world operating conditions. Ordinary compressor oils, due to their unstable characteristics, progressively thicken, alter their viscosity characteristics and tend to corrode surfaces coming into contact due to the tendency to increase in Total Acid Number (TAN).

Omega 615, on the other hand, is exceedingly oxidation-resistant and leaves no harmful deposits of varnish and carbon, thereby drastically reducing and, in some cases, virtually eliminating maintenance cleaning of compressors. The regular use of Omega 615 extends oil change intervals dramatically, reduces oil consumption and reduces repair frequencies, in direct relation to the operating costs of compressing equipment.

INCOMPARABLE PERFORMANCE CHARACTERISTICS:

Omega 615 offers the highest level of operational efficiency possible of the current state-of-the-art level. Following is a brief comparison of some of this remarkable lubricant's capabilities:



Nonfood Compounds Program Listed
Category Code : H1
Registration Number : 130634

	ORDINARY COMPRESSOR OIL	OMEGA 615 ULTRA-PERFORMANCE COMPRESSOR OIL
MAXIMUM OIL LIFE IN ROTARY-TYPE COMPRESSORS:	2,000 HRS (MAX)	8-10,000 HRS +

TYPICAL POUR POINT:	-20°C	-57°C
HIGH TEMPERATURE EVAPORATION LOSS @205°C	10% approx.	<3%
COMPATIBILITY WITH MINERAL OILS:	-	GOOD
LOW VOLATILITY:	FAIR	EXCELLENT
EFFECT ON MOST PAINTS & FINISHES:	MODERATE	NONE
HYDROLYTIC STABILITY: (STABILITY IN PRESENCE OF WATER)	MODERATE	EXCELLENT
ANTI-RUST PROPERTIES:	GOOD	EXCELLENT
ELASTOMER (SEAL) COMPATIBILITY:	DEPENDENT ON SEAL STOCK	GOOD

ENGINEERED TO EXCEL:

Omega 615 will provide improved wear protection at high temperatures and yet, equally prevent deposit formation in low temperature systems, such as refrigeration compressors. Due to improved anti-oxidants and lubricity, Omega 615 will enhance compressor efficiency while reducing discharge valve deposits.

Due to its significantly higher oxidation stability, Omega 615 ISO VG 46 is especially suitable for use in rotary screw-and rotary vane-type compressors where the operational temperature usually exceeds 100-110°C and there is markedly excessive aeration, which causes rapid deterioration in the performance of ordinary compressor oils.

Omega 615 ISO VG 100 is recommended for conventional reciprocating-type compressors which require a higher viscosity oil for optimum performance.

Also, due to Omega 615's remarkable stability at ultra low temperatures, it will also outperform the best of the ordinary refrigeration compressor oils (which only perform down to their -40°C pour point), while Omega 615's pour point is -57°C.

TYPICAL DATA:

TEST	ASTM TEST METHOD	ISO VG 46	ISO VG 100
Appearance	Visual	Off Color White	Off Color White
Density, Kg/L @ 15°C	D-1298	0.835	0.838
Viscosity, cSt @ 40°C	D-445	46	99
@ 100°C	D-445	7.8	14.2
@ -40°C		30000	82000
Viscosity Index	D-2270	138	147
Flash Point, COC °C(°F)	D-92	258(496)	264(507)
Pour Point, °C(°F)	D-97	-57(-71)	-45(-49)
Total Acid Number, mg KOH/g	D-974	0.7	0.7
Foaming Characteristics - All Sequences, After Settling	D-892	Nil	Nil
Rust Prevention Characteristics	D-665	Pass	Pass
Copper Strip Corrosion, 3 hours @ 100°C	D-130	1b	1b
Evaporation Loss - 6.5 hrs @205°C, % Mass	D-972	3	2.7
Oxidation Characteristics - Hours to TAN 2.0	D-943	>3000	>2500
Carbon Residue, Conradson, % Mass	D-524	0.02	0.02

APPLICATION:

Follow equipment manufacturers' filling and draining instructions. Omega 615 ISO VG 46 provides excellent service characteristics in flooded rotary compressors (vane-type and screw-type). The ISO VG 100 grade is engineered specially to provide improved performance for reciprocating-type air compressors. Oil life exceeds that of ordinary compressor oils by four hundred to five hundred percent!

Omega 615 is approved by the Commonwealth of Australia's Department of Primary Industries and Energy, under "Lubricant-Type A", as Food Grade and acceptable for use in establishments registered under the Export Control Act 1982. (This is the Australian equivalent of the U.S.D.A.'s H-1 approval)

MAGNA INDUSTRIAL CO. LIMITED

Total Quality Maintenance

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MATERIAL SAFETY DATA SHEET

DATE 04 May 2015

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name/Code Omega 615

Company Identification

Omega Manufacturing Division,
Magna Industrial Co. Limited,
1801, Guardian House,
32 Oi Kwan Road,
Wanchai, Hong Kong.

Distributor

Alshawi Trading,
Block 351, Road 51, Bldg 20, Manama - Bahrain.
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SECTION 2 - HAZARDS IDENTIFICATION

Not classified as hazardous.

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS Number</u>	<u>Wt.%</u>	<u>Classification</u>
Polyalphaolefin	68037-01-4	60-100	-

SECTION 4 - FIRST-AID MEASURES

Eye Contact: Flush with plenty of water for at least 15 minutes. Seek immediate medical attention.

Skin Contact: Wash thoroughly with soap and water. Obtain medical attention in case of skin irritation or other cause for concern.

Inhalation: Move patient to open air.

Ingestion: Do not induce vomiting. Seek immediate medical attention.

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SECTION 5 - FIRE-FIGHTING MEASURES

Extinguishing Media: Dry chemical, waterfog, foam, sand and carbon dioxide.

Special Protective Equipment for Fire Fighters: Self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Dense smoke. Carbon dioxide, carbon monoxide.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spillage: Transfer bulk of material into another container. Absorb remaining residue with proper absorbents such as sand, vermiculite. Sweep up and dispose of in accordance with local and national regulations.

SECTION 7 - HANDLING AND STORAGE

Keep containers closed. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Wash clothing before reuse. Keep away from feed and food products.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ACGIH TLV

Synthetic polyalphaolefin 5 mg/m³ (oil mist)

Eye Protection: Safety goggles and full-face shield

Hand Protection: Rubber or plastic oil resistant gloves.

Ventilation: Use under well ventilated conditions.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Off-white liquid

Odour: Oil odour

pH: N.A.

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Specific Gravity: 0.833
Vapour Pressure: N.A.
Boiling Point: N.A.
Melting Point: N.A.
Flash Point: >257°C
Flammability: N.A.
Evaporation Rate: N.A.
Solubility in Water: Insoluble

SECTION 10 - STABILITY AND REACTIVITY

Stable under normal condition.

Materials to Avoid: Strong oxidizing agents, hydrogen peroxide, chromic acid, bromine.

Toxic compounds may form on thermal decomposition. Hazardous combustion products: carbon monoxide, carbon dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

There is no lethal dose information available.

Inhalation: Inhalation of vapours can cause irritation of the respiratory tract. High concentrations of oils, mists or vapours can cause chemical pneumonitis.

Skin: May cause irritation, drying and cracking.

Eyes: Cause irritation.

Ingestion: May cause irritation in mouth and stomach, thirst, nausea, vomiting, diarrhoea, with possible collapse if large amounts ingested. Aspiration of material upon vomiting may cause chemical pneumonitis.

SECTION 12 - ECOLOGICAL INFORMATION

No ecological information is available at present.

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SECTION 13 - DISPOSAL CONSIDERATIONS

Comply with all local and national regulations regarding disposal.

SECTION 14 - TRANSPORT INFORMATION

UN Number : Not regulated

IATA Class : Not regulated, Packing Group: Not regulated

IMDG Class : Not regulated, Packing Group: Not regulated

Not considered hazardous for transport purpose.

SECTION 15 - REGULATORY INFORMATION

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SECTION 16 - OTHER INFORMATION

R-phrases: -

S-phrases: -

Remarks: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense, direct or consequential, arising out of their use.