

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:

	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	TEST RESULT	
		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
Viscosity, cSt @ 100°C	D-445	7.8	14.2
Viscosity, cSt @ -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!

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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: Omega 615
Container size: 5 l, 20 l

1.2. Relevant identified uses of the substance or mixture and uses advised against

Application: Lubricant.

1.3. Details of the supplier of the safety data sheet

<u>Supplier:</u>	GB importer:	Sovereign Lubricants (UK) Ltd, Crowtrees Lane, Rastrick, West Yorkshire, HD6 3LZ
<u>Manufacturer:</u>	ITW PP & F Korea Limited 13th Fl., Unit B, PAX Tower 609 Eonju-ro, Gangnam-Gu Seoul, Korea 06108 Tel: +82-2-2088-3560 Fax: +82-2-513-3567 magna@magnagroup.com www.magnagroup.com	T: 01484 718674 - F: 01484 400164 enquiries@sovereign-omega.co.uk www.sovereign-omega.co.uk

1.4. Emergency telephone number

Emergency telephone: Call a Poison Center, emergency number or doctor/physician.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP: The product is not classified.

2.2. Label elements

The substance/mixture does not meet the criteria for classification and labelling.

2.3. Other hazards

PBT/vPvB: This product does not contain any PBT or vPvB substances.

Other: Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema, skin cracking and oil acne.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

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The product contains: synthetic oils and additives.

All substances in the product are either registered or exempt from registration under REACH.
Only classified substances above threshold limits or substances with an exposure limit are shown.

CLP:

%:	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
60-100	68037-01-4	500-183-1	01-2119486452-34-0018	Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	-	

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

<u>Inhalation:</u>	Move into fresh air and keep at rest. In case of persistent throat irritation or coughing or after inhalation of oil mist: Seek medical attention and bring along these instructions.
<u>Skin contact:</u>	Remove contaminated clothing immediately and wash skin with soap and water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.
<u>Eye contact:</u>	Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.
<u>Ingestion:</u>	Immediately rinse mouth and drink 1-2 glasses of water. Keep person under observation. If uncomfortable: Transportation to hospital. Bring along these instructions.

4.2. Most important symptoms and effects, both acute and delayed

4.3. Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Treat symptomatically.

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media: Small fires: Extinguish with carbon dioxide or dry powder.
Larger fires: Extinguish with foam, carbon dioxide or dry powder.
Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards: During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Protective equipment for fire-fighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid inhalation of oil mist and contact with skin and eyes. Follow precautions for safe handling described in this safety data sheet.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Absorb spillage with oil-absorbing material. Clean contaminated area with oil-removing material.

6.4. Reference to other sections

References: For personal protection, see section 8.
For waste disposal, see section 13.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice: Observe good chemical hygiene practices. Avoid prolonged and repeated contact with oil, particularly used oil. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets.

Technical measures: Use work methods which minimise oil mist production.

Technical precautions: When working with heated oil, mechanical ventilation may be required.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: No special precautions.

Storage conditions: Store in tightly closed original container.

7.3. Specific end use(s)

Specific use(s): Not relevant.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No occupational exposure limit assigned.

8.2. Exposure controls

Engineering measures: Provide adequate ventilation and minimise the risk of inhalation of vapours and oil mist. Provide access to washing facilities incl. soap, skin cleanser and fatty cream.

Personal protection: Personal protection equipment should be chosen according to the relevant standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with combination filter (type A2/P3) can be used.

Hand protection: Risk of contact: Wear protective gloves.
Nitrile gloves are recommended.
Thickness: >0.3 mm; Breakthrough time: >240min.
The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection: Risk of contact: Wear goggles/face shield.

Skin protection: Wear apron or protective clothing in case of splashes.

Hygiene measures: Wash hands after contact. Wash contaminated clothing before reuse.

Environmental Exposure Controls: Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state: Clear liquid.
Odour: Almost odourless.
Odour threshold: Not available.
pH: Not available.
Melting point / freezing point: Not available.
Boiling point: Not available.
Flash point: > 200°C
Evaporation rate: Not available.
Explosive limits Not available.
Vapour pressure: Not available.
Vapour density: Not available.
Relative density: ~ 0,85
Solubility: Immiscible with water.
Partition coefficient (n-octanol/water): Not available.
Auto-ignition temperature (°C): Not available.
Decomposition temperature (°C): Not available.
Viscosity: Not available.
Explosive properties: Not available.
Oxidising properties: Not available.

9.2. Other information

Other data: Kinematic viscosity: ~ 100 mm²/s (40 °C)

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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: Not reactive.

10.2. Chemical stability

Stability: Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

Conditions to avoid Heat, sparks, flames.

10.5. Incompatible materials

Incompatible materials: Strong oxidising substances.

10.6. Hazardous decomposition products

Hazardous decomposition products: None known.

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

The harmful effects may increase in used oil.

Acute Toxicity (Oral): Based on available data, the classification criteria are not met.

Acute Toxicity (Dermal): Based on available data, the classification criteria are not met.

Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.

Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

STOT - Single exposure: Based on available data, the classification criteria are not met.

STOT - Repeated exposure: Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: Inhalation of oil mist or vapours formed during heating of the product will irritate the respiratory system and provoke coughing.

Skin contact: Degreasing. Prolonged or frequent contact may cause redness, itching, eczema and skin cracking.

Eye contact: Splashes may irritate.

Ingestion: May irritate and cause malaise.

Specific effects: Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis.

11.2. Information on other hazards

Endocrine disrupting properties: The product does not contain any substance identified as having endocrine disrupting properties.

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SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity: Oil spills are generally hazardous to the environment.

12.2. Persistence and degradability

Degradability: The product is slowly degradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available on bioaccumulation.

12.4. Mobility in soil

Mobility: No data available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

12.6. Endocrine disrupting properties

Endocrine disrupting properties: The product does not contain any substance identified as having endocrine disrupting properties.

12.7. Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste.

Waste from residues: EWC-code: 13 02 06

Contaminated packaging: Dispose of contaminated packings as residue.

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SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/AND/RID).

14.1. UN number

UN-No: -

14.2. UN proper shipping name

Proper Shipping Name: -

14.3. Transport hazard class(es)

Class: -

14.4. Packing group

PG: -

14.5. Environmental hazards

Marine pollutant: -

Environmentally Hazardous substance: -

14.6. Special precautions for user

Special precautions: None known.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk: Not relevant.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulation: UK Statutory Instruments, 2021 No. 904, CONSUMER PROTECTION ENVIRONMENTAL PROTECTION HEALTH AND SAFETY. The REACH etc. (Amendment) Regulations 2021.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2019 (SI 2019 No. 720), as amended.
EH40/2005, Workplace exposure limits 2005, with amendments.
The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

15.2. Chemical Safety Assessment

CSA status: No chemical safety assessment has been carried out.

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SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

Handling of used oils:

Protect health - avoid prolonged and repeated skin contact. Wash with soap and water. Protect the environment - do not pollute drains, water courses or the soil. Contact your local authority for any used oil disposal instructions.

The following sections contain revisions or new statements: 1, 4, 6, 7, 8, 11, 12, 13, 16.

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Abbreviations and acronyms

used in the safety data sheet: CSA= Chemical Safety Assessment.
PBT = Persistent, Bioaccumulative and Toxic.
vPvB = very Persistent and very Bioaccumulative.

Additional information: Classification according to Regulation (EC) No. 1272/2008: Calculation method.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

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