

# Omega 22

## “Glide Sensation+” All Purpose Grease

### DESCRIPTION:

Enhanced with a higher EP additive package, the new **OMEGA 22 “Glide Sensation+” All Purpose Grease** is a superior performance NLGI 2-grade grease quality formulated with a synthetic base fluid and a special grade polytetrafluoroethylene (PTFE) constituent to ensure the most promising performance characteristics in the most punishing conditions.

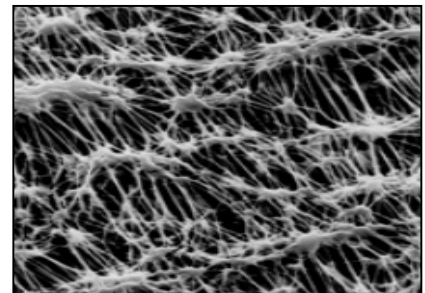
PTFE additives are micronized powders that, when combined with the synthetic base fluid, enhance lubricity and reduce friction. The result is significant improvement on wear resistance. “Stick-slip” problem can virtually be eliminated.

The new OMEGA 22 provides lasting and consistent protection to metal parts under a wide range of service temperatures from -40°C to 210°C (-40°F to 410°F). While providing long service life at high and low temperatures, OMEGA 22 also stands up to high loading and severe shock loading service conditions to guard against bearing failure where ordinary greases fall short.

According to 4-Ball EP performance test (ASTM Test Method D-2596), the new OMEGA 22 achieves a weld load of 500 kgf, representing a remarkable 40% improvement in the grease’s load carrying capacity!



OMEGA 22 showing smooth texture and light green color



PTFE membrane magnified by 7000 times



OMEGA 22 is available in 5 kg and 15 kg pack-sizes



Corrugation machine

## ADVANCED SYNTHETIC BASE FLUID:

OMEGA 22's advanced synthetic base fluid features a high viscosity index for excellent film protection at high temperatures and superior low-temperature mobility for outstanding pumpability. Endowed with an advanced formulation including lubricity enhancer PTFE, **OMEGA 22 "Glide Sensation™" All Purpose Grease** can be trusted in the most versatile applications and under extreme operating conditions.

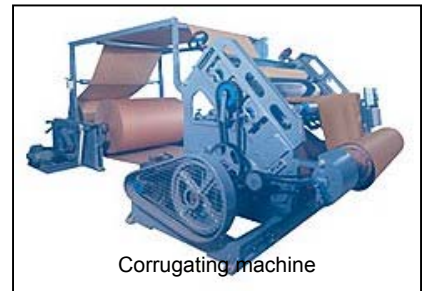
OMEGA 22 has a high thermal and mechanical stability and a low rate of evaporation. The intervals between re-greasing can be safely extended even at elevated temperatures. Enhanced with a unique thickening system that warrants a high dropping point, the additives package deliver optimum extreme-pressure properties and excellent resistance to water washout. The lithium complex thickener also gives excellent adhesion, structural stability and resistance to water.

The superior lubricity and enhanced EP property of OMEGA 22 provide unmatched protection against "stick-slip" and bearing seizure due to lubricant failure under high-loading and high-impact conditions.

As a superior synthetic multi-purpose grease, OMEGA 22 features low friction characteristics for the reduction of noise and driving torque. OMEGA 22 offers extra protection to metals against rust, corrosion and minimizes grease hardening due to oil oxidation in high-temperature services. OMEGA 22 provides excellent low temperature pumpability and very low starting and running torque. OMEGA 22 also offers good mechanical shear stability and a high drop point to resist leakage caused by grease softening and melting.



Corrugating machine



Corrugating machine



Corrugating machine



Spherical roller bearing

## TRULY VERSATILE APPLICATIONS:

**OMEGA 22 “Glide Sensation+” All Purpose Grease** is the genuine multi-purpose lubricating solution for use in:

- All types of ball, roller and plain bearings.
- Rolling bearings in corrugating machines, extruding screw bearings in plastic injection molding machines, conveyor bearings going in and out of ovens and dryers.
- Running gear bearings.
- Long-term use for bearings in cableway and precision engineering application.
- High-speed plain and rolling bearings, e.g. spindle bearings in machine tools.
- Guides.
- Joints, e.g. steering joints and universal joints
- Couplings.
- Automotive applications.
- Disc brake wheel bearings, ball and steering joints.
- Textile machines, threaded spindles, ball screws subject to high loads.
- Severe paper machine applications including high and low temperature environments and exposure to different qualities of water.
- The most critical rolling element bearing applications in paper machines:
  - Ideal for the wet end of the paper machine bearings
  - Highly loaded press section bearings
  - High-temperature felt roll and calendar stack bearings
- Most low-tension (LT), high-tension (HT) & heavy duty industrial motors



Corrugating machine



Steering joint



Textile machine



Paper machine



Rolling bearings

**TYPICAL DATA:**

TEST	ASTM TEST METHOD	TEST RESULT
Base Fluid: -		
Viscosity, cSt @ 40°C	D-445	169.3
Viscosity, cSt @ 100°C	D-445	19.5
Viscosity Index	D-2270	132
Worked Penetration @ 25°C	D-217	275 – 305
Dropping Point, °C	D-2265	260+
Timken, OK Load, kg	D-2509	36
4-Ball EP Performance		
Weld Load, kgf	D-2596	500
4-Ball Wear, 1800rpm, 1 Hour 20 kgf		
Scar Diameter, mm	-	0.40
Copper Corrosion Test	D-130	1b
Rust Test	D-1743	Pass
Oxidation	D-942	
PSI Loss: 100 Hours		0
PSI Loss: 300 Hours		2
PSI Loss: 500 Hours		4
Evaporation Loss @ 175°C, wt%	D-972	3.9
PTFE Content %		3.0
Texture		Smooth
Thickener		Lithium Complex
NLGI Grade	D-217	#2
Operating Temperature Range, °C		-40 to +210
Color		Light green

# MAGNA INDUSTRIAL CO. LIMITED

*Total Quality Maintenance*

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1801, Guardian House, 32 Oi Kwan Road, Wanchai, Hong Kong Tel: (852) 2577 5187 Fax: (852) 2577 3190  
E-Mail: [magna@magnagroup.com](mailto:magna@magnagroup.com) Web Site: [www.magnagroup.com](http://www.magnagroup.com)

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## MATERIAL SAFETY DATA SHEET

DATE 01 Aug 2014

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### SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

**Product Name/Code** Omega 22

#### 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.  
[www.alshawitrading.com](http://www.alshawitrading.com)  
[info@alshawitrading.com](mailto:info@alshawitrading.com)  
P.O.Box 33526

Telephone (852) 25775187  
Fax (852) 25773190

Telephone (973) 1755 0019  
Fax (973) 1755 5108

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### SECTION 2 - HAZARDS IDENTIFICATION

Not classified as hazardous.

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### SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

<u>Ingredients</u>	<u>CAS Number</u>	<u>Wt.%</u>	<u>Classification</u>
Polyalphaolefin	68037-01-4	30-60%	-
Paraffinic mineral oil**	64742-65-0	30-60%	-
Lithium complex soap	4485-12-5	10-30%	-

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### 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, carbon dioxide. Do not use water.

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

Unusual Fire and Explosion Hazards: Avoid smoke inhalation. Water or foam may cause frothing.

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## 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.

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## 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.

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## SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

### ACGIH TLV

Paraffinic mineral oil	5 mg/m <sup>3</sup> (oil mist)
Polyalphaolefin	5 mg/m <sup>3</sup>

Eye Protection: Safety goggles and full-face shield

Hand Protection: Rubber or plastic oil resistant gloves.

Ventilation: Use under well ventilated conditions.

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Green



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Odour: No special odour  
pH: N.A.  
Specific Gravity: 0.87  
Vapour Pressure: N.A.  
Boiling Point: >250°C  
Melting Point: >250°C  
Flash Point: >200°C  
Flammability: N.A.  
Evaporation Rate: N.A.  
Solubility in Water: Insoluble

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## SECTION 10 - STABILITY AND REACTIVITY

Stable under normal condition. Avoid pyrolysis.

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

Toxic compounds may form on thermal decomposition. Hazardous combustion products: carbon monoxide and sulfur oxide.

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## SECTION 11 - TOXICOLOGICAL INFORMATION

There is no lethal dose information available.

Inhalation: Inhalation of solvent vapours can cause irritation of the respiratory tract. Polytetrafluoroethylene (PTFE), when thermally decomposed, may cause polymer fume fever and flu-like symptoms. Inhalation of vapours from material at high temperatures (over 250°C) must be avoided. Contamination of cigarettes or other tobacco products must be avoided.

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.

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## 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.

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## 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.

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## SECTION 15 - REGULATORY INFORMATION

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## SECTION 16 - OTHER INFORMATION

R-phrases: -

S-phrases:-

\*\*The highly refined mineral oil used in this product contains less than 3% DMSO extract as measured by IP 346.

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**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.