

Omega 77

DESCRIPTION:

Omega 77 is a sophisticated, impact-resistant, chassis and bearing lubricant. It provides an exceptional standard of lubrication no the endless variety of mechanical equipment in use today. This results in dramatically reduced inventories, downtime and maintenance cost.

FUNCTIONS:

Omega 77 resists squeeze-out and thinning. Bearings must provide the support and constraint to a moving link of kinematic chains or mechanisms. The prime objective is to retain complete lubricant coverage and yet still provide maximum mechanical freedom. Ordinary greases are unable to withstand the everyday pressures of bearings and, subsequently, disintegrate rapidly leaving prime support areas in direct, metal-to-metal contact!

COMPRESSIVE STRENGTH:

Omega 77 possesses almost infinite strength to support maximum loads without rupturing, disintegrating, crumbling or crushing. Its development ensures that minute spheres of active hologramaphethetics actually serve as molecular bearings to keep frictional surfaces apart.

CONFORMITY:

Omega 77 has constant conformity. This aspect provides the essential texture for precision applications and the necessary allowance for possible surface deformity in the bearing. This ensures that alignment remains constant.

LOW CO-EFFICIENCY OF FRICTION:

Omega 77 provides excellent reduction of friction between journal and bearing. This results in considerably lower energy consumption and wear - especially during the critical start-up period.

LOW THERMAL EXPANSION:

Omega 77 does NOT expand or contract as a result of temperature or climatic changes. Ordinary greases not only expand, but often form small hard congealants that rapidly transform into diamond hard abrasives. This causes heavy bearing drag which overloads equipment and increases the frictional energy requirements.

HIGH THERMAL CONDUCTIVITY AND ABSORPTION:

Omega 77 rapidly absorbs and dissipates heat. Frictional heat can have a marked effect on the running efficiency of the equipment. Ordinary greases tend to burn-up and this enables 'hot-spots' to form. These develop into irreparable wear areas.

CAPILLARY TENDENCIES:

Omega 77 has active supplements that ensure total surface coverage.

CORROSION RESISTANCE:

Omega 77 is resistant to the acids formed by "mixed-greases" previously used in the equipment. Omega 77 is also resistant to acids formed by contaminants.

ELASTICITY:

Ordinary greases tend to lubricate only those areas where they can be applied. This results in large areas, without lubrication, being subjected to damaging contact and eventual seizure! Omega 77 has a spreading ability that ensures ALL potential wear areas are covered.

METAL TYPES:

Omega 77 is ideal for application to the following metals and combinations of metals:

Aluminium	Cast Iron	Nickel
Antimony	Indium	Silver
Bismuth	Iron	Steel
Cadmium	Lead	Tin
		Zin

TYPICAL DATA:

<u>TEST</u>	<u>ASTM METHOD</u>			
NLGI		2.5	2	00
Colour	-	Red Sparkle	Red Sparkle	Red
Worked Penetration, at 25°C	D-217	250-280	265-295	400-430
Dropping Point, °C (°F)	D-2265	190 (374)	188(370)N.A.	
Water Washout Characteristics	D-1264			
Grease Washout, % Loss		4.5	3	N.A.
Wheel Bearing Leakage, % Loss	D-1263	0.4	1.2	2.1
Oil Separation, %	D-1742	2.0	3.0	N.A.
Oxidation Stability, lbs loss in 100 hrs	D-942	5 max.	5 max.	5 max
Rust Prevention	D-1743	Pass	Pass	Pass
Roll Stability, Point Change	D-1831	N.A.	2.19	N.A.
Timken, OK Load, kg	D-2509	23	23	23
Mineral Oil Specification -				
Viscosity, cSt at 100°C	D-445	30	30	19.2
at 40°C	D-445	455	455	314
Viscosity Index	D-2270	110	110	60
Flash Point, °C (°F)	D-92	254(489)232(450)	242(468)	
Pour Point, °C (°F)	D-97	-10 (14)	-12 (10)	-12 (10)
Temperature Range, °C (°F)		- 7 to 150 (20 to 302)	-7 to 149 (20 to 300)	-7 to 149 (20 to 300)

MAGNA INDUSTRIAL CO. LIMITED

Total Quality Maintenance

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

O-77 p.1

MATERIAL SAFETY DATA SHEET

DATE 01 Apr 2015

SECTION 1 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

Product Name/Code Omega 77

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
info@alshawitrading.com
P.O.Box 33526

Telephone (852) 25775187
Fax (852) 25773190

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

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>
Highly refined mineral oil**	64742-65-0	30-60	-
Highly refined mineral oil**	64742-62-7	30-60	-
Highly refined mineral oil**	64741-96-4	10-30	-

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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O-77 p.2

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: 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

Highly refined mineral oil

5mg/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: Red

Odour: Mineral oil smell

pH: N.A.

Specific Gravity: 0.9

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O-77 p.3

Vapour Pressure: N.A.
Boiling Point: N.A.
Melting Point: N.A.
Flash Point: Above 150°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 such as hydrogen peroxide, chromic acid, bromine.

Toxic compounds may form on thermal decomposition. Hazardous combustion products: carbon monoxide, carbon dioxide, oxides of sulphur and nitrogen.

SECTION 11 - TOXICOLOGICAL INFORMATION

There is no lethal dose information available.

Inhalation: Inhalation of solvent vapours can cause irritation of the respiratory tract. High concentrations of oils, mists, sprays 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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O-77 p.4

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: -

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

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.