



**ZetaLube**

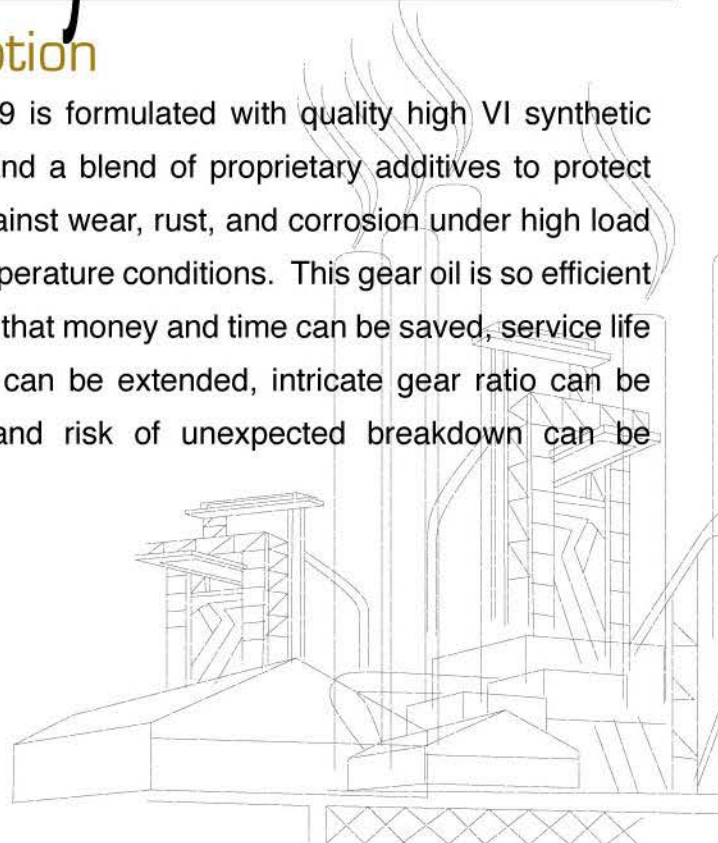
A New Lubricity Dimension  
Evolved From Experience



# ZetaLube 229 Synthetic Gear Oil

## Description

ZetaLube 229 is formulated with quality high VI synthetic base stock and a blend of proprietary additives to protect gear sets against wear, rust, and corrosion under high load and high temperature conditions. This gear oil is so efficient and effective that money and time can be saved, service life of gear sets can be extended, intricate gear ratio can be maintained and risk of unexpected breakdown can be minimized.



**MAGNA INDUSTRIAL CO. LIMITED**  
*Total Quality Maintenance*

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## Features and Benefits

- Outstanding oxidation and thermal stability to minimize build-up of carbon residues and varnish which negatively affect the gear ratio.
- Excellent load-carrying capability to protect gears against high load and shock load.
- Wide service temperature range – maintains fluidity at very low temperatures and lubricity at high temperatures.
- Energy efficient – low coefficient of friction and fluid drag.
- Excellent anti-corrosion, anti-wear, and anti-foam properties – increases service life of gear systems and decreases maintenance and replacement costs.
- Long service life – saves maintenance costs and time.

## Recommended Applications

- For lubrication of enclosed gear boxes and transmission systems of heavy-duty machinery/equipment.
- For gear drives of machinery/equipment operating continuously day in and out such as gear reducers for power plants and weaving machines for textile mills.

## Typical Data

TEST	ASTM TEST METHOD	ISO VG 150	ISO VG 220
Appearance	Visual	Black, Tacky	Black, Tacky
Density, kg/L @ 15°C	D-1298	0.85	0.855
Viscosity, cSt @ 40°C	D-445	153	220
@ 100°C	D-445	20	26
Viscosity Index	D-2270	150	155
Flash Point, COC, °C	D-93	190	195
Pour Point °C	D-97	-39	-36

The data shown are typical value and may vary.

## Pack-size

205 Litre Metal Drum & 20 Litre Plastic Container

Authorized Distributor

**Alshawi Trading,**  
Block 351, Road 51, Bldg 20, Manama - Bahrain.  
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**MATERIAL SAFETY DATA SHEET**

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910. 1200, Standard must be consulted for specific requirements.

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<b>IDENTITY (As Used on Label and List)</b> <b>ZETALUBE 229</b>	<b>LAST ASSESSED:</b> 29 May 2007
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**SECTION I - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION**

<i>Hazardous Components (Specific Chemical Identity: Common Name(s))</i>	<i>CAS NO.</i>	<i>ACGIH TLV</i>	<i>Other Limits Recommended</i>
Polyalphaolefin	68037-01-4	5mg/m <sup>3</sup> *	-
Molybdenum disulfide	1317-33-5	15.0mg/m <sup>3</sup>	-

**SECTION II - PHYSICAL CHARACTERISTICS**

<i>Boiling Point</i>	N.A.	<i>Specific Gravity (H<sub>2</sub>O = 1)</i>	~0.9
<i>Vapor Pressure (N.A.)</i>	N.A.	<i>Melting Point</i>	N.A.
<i>Vapor Density (AIR = 1)</i>	N.A.	<i>Evaporation Rate (Ether = 1)</i>	N.A.

*Solubility in Water* < 0.1 g/l

*Appearance and Odor* Dark grey/black liquid with negligible odor.

**SECTION III - FIRE AND EXPLOSION HAZARD DATA**

<i>Flash Point (Method Used)</i>	<i>Flammable Limits</i>	<i>LEL</i>	<i>UEL</i>
>150°C	N.A.	-	-

***Extinguishing Media***

Dry chemical, water fog, carbon dioxide, foam, and sand.

***Special Fire Fighting Procedures***

Fire fighters should wear an approved self-contained breathing apparatus.

***Unusual Fire and Explosion Hazards***

None expected. Autoignition temperature is in excess of 450°C.

**SECTION IV - REACTIVITY DATA**

<i>Stability</i>	<i>Conditions to Avoid</i>
Stable	None

***Incompatibility (Materials to Avoid)***

Strong oxidizing agents

***Hazardous Decomposition or Products***

Oxides of carbon

<i>Hazardous Polymerization</i>	<i>Condition to Avoid</i>
Will Not Occur	None

**SECTION V - HEALTH HAZARD DATA**

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**Threshold Limit Value**

See section I hazardous ingredients

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**Effects of Overexposure**

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.

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**Emergency & First Aid Procedures**

Eyes: Flush with large amounts of water for at least 15 min. Call a physician immediately.

Skin contact: Wash thoroughly with soap and water.

Inhalation: N.A.

If swallowed: Call a physician immediately.

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**SECTION VI - PRECAUTIONS FOR SAFE HANDLING AND USE**

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**Steps to Be Taken In Case Material Is Released or Spilt**

Transfer bulk of material into another container. Absorb remaining residue with proper absorbents such as sand, earth, and vermiculite. Sweep up and dispose of as solid waste comply with all local and national regulations.

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**Waste Disposal Method**

By methods consistent with local and national regulations.

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**Precautions to Be Taken in Handling and Storing**

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

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**Other Precautions**

Keep out of the reach of children.

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**SECTION VII - CONTROL MEASURES**

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**Respiratory Protection (Specify Type)**

None required

<b>Ventilation</b>	<b>Local Exhaust</b>	<b>Special</b>
	N.A.	N.A.
	<b>Mechanical (General)</b>	<b>Other</b>
	N.A.	N.A.

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**Protective Gloves**

Rubber or plastic oil resistant gloves.

**Eye Protection**

Safety goggles and full-face shield when handled hot.

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**Other Protective Clothing or Equipment**

None required

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**Work/Hygienic Practices**

N.A.

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**Remarks**

\* The ACGIH TLV for mineral oil mists is 5mg/m<sup>3</sup> for a daily 8-hour exposure.

Transportation: Not classified.

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