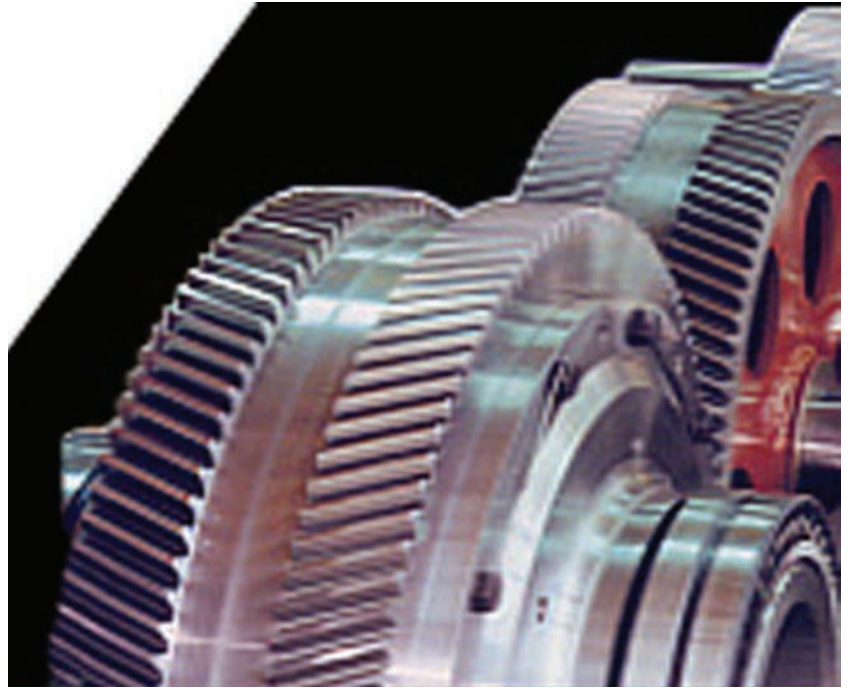




ZetaLube

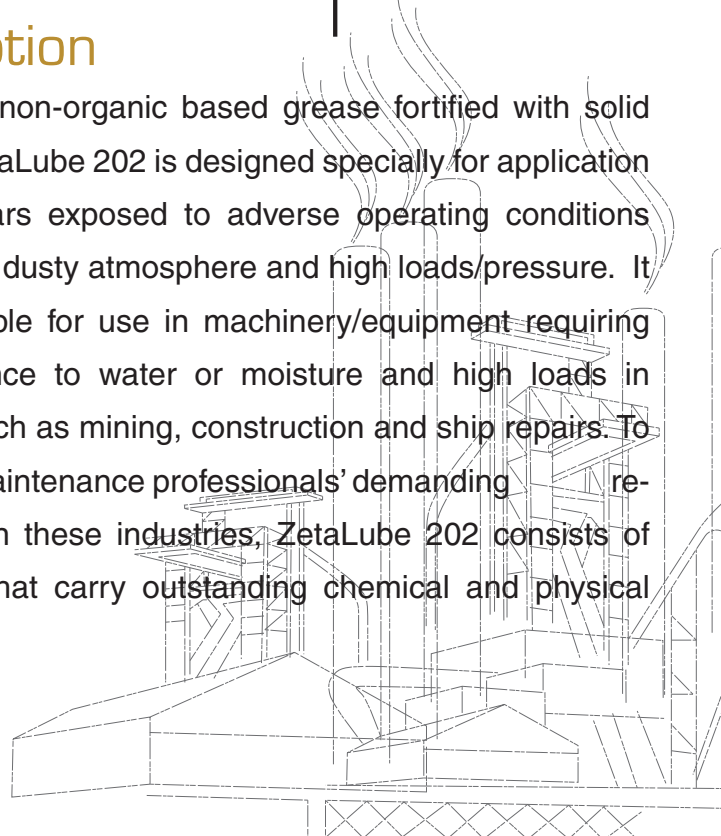
A New Lubricity Dimension
Evolved From Experience



ZetaLube. 202 Open Gear Graphite Grease

Description

A tenacious non-organic based grease fortified with solid lubricant, ZetaLube 202 is designed specially for application on open gears exposed to adverse operating conditions such as rain, dusty atmosphere and high loads/pressure. It is also suitable for use in machinery/equipment requiring high resistance to water or moisture and high loads in industries such as mining, construction and ship repairs. To satisfy the maintenance professionals' demanding requirements in these industries, ZetaLube 202 consists of ingredients that carry outstanding chemical and physical properties.



MAGNA INDUSTRIAL CO. LIMITED
Total Quality Maintenance

www.magnagroup.com

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Features and Benefits

- Maintains its consistency and tackiness even under high loads/pressure to seal off dust potentially damaging to open gear systems exposed to high loads/pressure.
- Strong resistance to water wash-out and good adhesiveness to prevent fling-off of the grease from parts/components even under humid conditions.
- Excellent load-carrying capacity and film strength to protect machinery/equipment against frictional wears and to provide outstanding lubricity under high loads/pressure.
- Excellent oxidation and thermal stability to maintain performance at elevated temperatures.
- Provides extra protection to machinery/equipment with solid lubricant at extremely high temperatures.
- Extends machinery/equipment service life operating at high temperatures and reduces maintenance costs.

Recommended Applications

- Suitable for protecting open gear systems operating at high temperatures and under high loads/pressure in industries such as mining, construction, ship repair, etc.
- Suitable for parts and components of heavy duty machinery/equipment exposed to open air and moisture – eg. winches, cranes, hoists, cableways, water pumps, etc.

Typical Data

TEST	ASTM TEST METHOD	Test Result
Appearance	Visual	Ebony
NLGI Grade	--	No.2
Worked Penetration @ 77°F	D-217	265-295
Dropping Point	D-566	None
Timken OK Load, lbs. Min.	D-2509	40
Oil Separation, 500 hours	D-1742	No trace
Rust-Prevention	D-1743	Pass

The data shown are typical value and may vary.

Pack-size

15 Kg Pail

Authorized Distributor

Alshawi Trading,
Block 351, Road 51, Bldg 20, Manama - Bahrain.
www.alshawitrading.com
info@alshawitrading.com
P.O. Box : 33526

Tel: (973) 1755 0019
Fax: (973) 1755 5108

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.

ZETALUBE DIVISION
MAGNA INDUSTRIAL CO. LIMITED
18/F., GUARDIAN HOUSE,
32 OI KWAN ROAD, WANCHAI,
HONG KONG

TEL: (852) 2577 5187

FAX: (852) 2577 3190

IDENTITY (As Used on Label and List) ZETALUBE 202	LAST ASSESSED: 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>
Highly refined mineral oil**	64741-96-4	5.0mg/m ³ *	-
Carbon black as thickener	1333-86-4	3.5mg/m ³	-
Graphite	7440-44-0	-	***

SECTION II - PHYSICAL CHARACTERISTICS

<i>Boiling Point</i>	N.A.	<i>Specific Gravity (H₂O = 1)</i>	~0.9
<i>Vapor Pressure (N.A.)</i>	N.A.	<i>Melting Point</i>	>180°C
<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 Tacky black paste with negligible odour

SECTION III - FIRE AND EXPLOSION HAZARD DATA

<i>Flash Point (Method Used)</i> >240°C	<i>Flammable Limits</i> N.A.	<i>LEL</i> -	<i>UEL</i> -
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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> Stable	<i>Conditions to Avoid</i> None
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Incompatibility (Materials to Avoid)

Strong oxidizing agents

Hazardous Decomposition or Products

Oxides of carbon

<i>Hazardous Polymerization</i> Will Not Occur	<i>Condition to Avoid</i> None
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SECTION V - HEALTH HAZARD DATA

Threshold Limit Value

See section I hazardous ingredients

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.

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.

SECTION VI - PRECAUTIONS FOR SAFE HANDLING AND USE

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.

Waste Disposal Method

By methods consistent with local and national regulations.

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.

Other Precautions

Keep out of the reach of children.

SECTION VII - CONTROL MEASURES

Respiratory Protection (Specify Type)

None required

Ventilation	Local Exhaust	Special
	N.A.	N.A.
	Mechanical (General)	Other
	N.A.	N.A.

Protective Gloves

Rubber or plastic oil resistant gloves.

Eye Protection

Safety goggles and full-face shield when handled hot.

Other Protective Clothing or Equipment

None required

Work/Hygienic Practices

N.A.

Remarks

* The ACGIH TLV for mineral oil mists is 5mg/m³ for a daily 8-hour exposure.
** Contains less than 3% DMSO extract as measured by IP346.
*** PEL TWA = 3.5mg/m³

Transportation: Not classified.

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