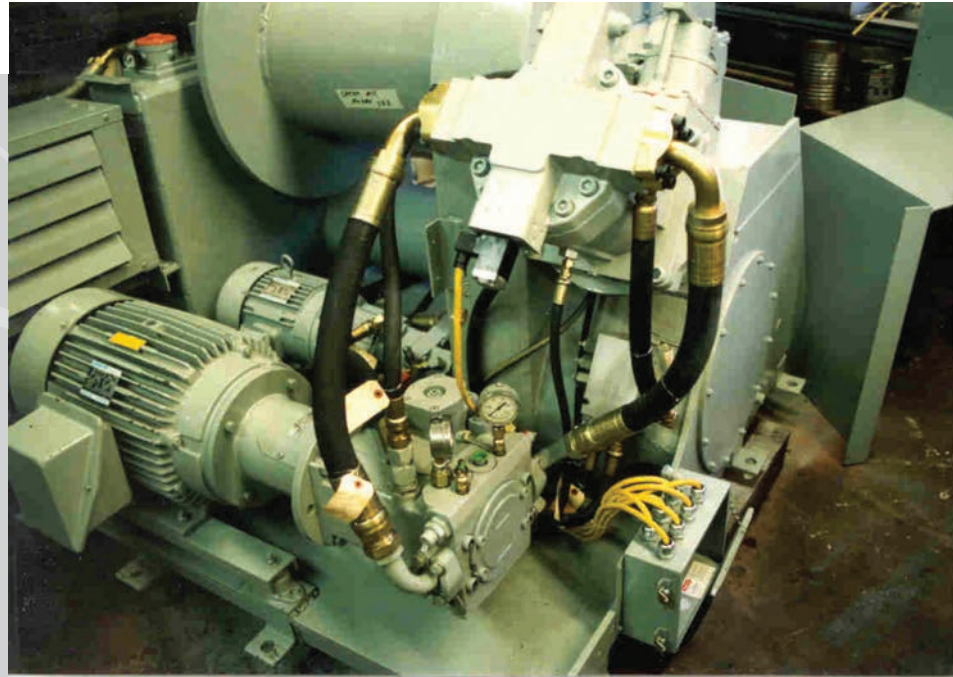




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ZetaLube

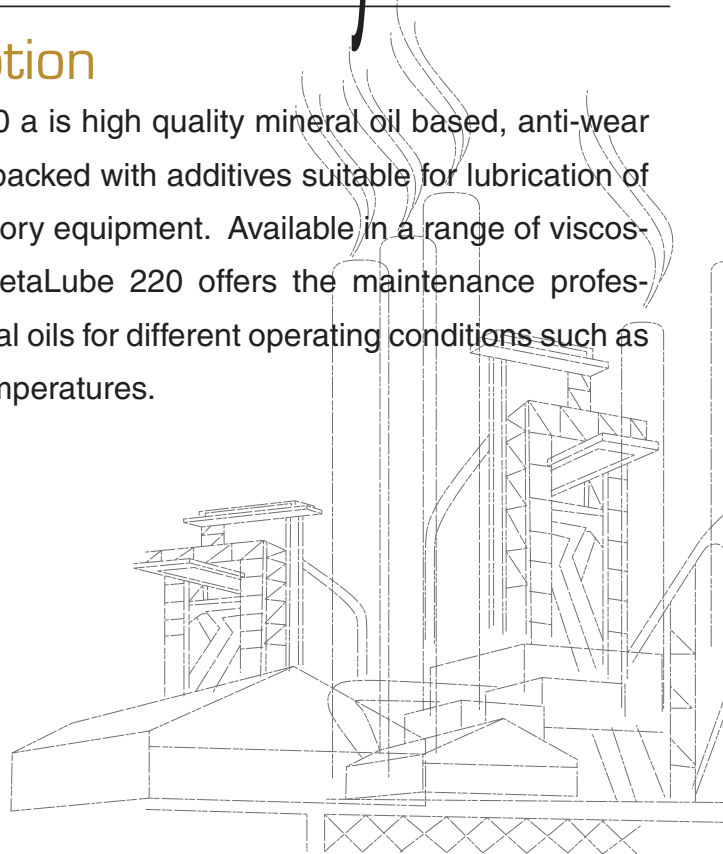
A New Lubricity Dimension
Evolved From Experience



ZetaLube 220 Anti-Wear Hydraulic Oil

Description

ZetaLube 220 a is high quality mineral oil based, anti-wear hydraulic oil packed with additives suitable for lubrication of nearly all factory equipment. Available in a range of viscosity grades, ZetaLube 220 offers the maintenance professionals several oils for different operating conditions such as loads and temperatures.



MAGNA INDUSTRIAL CO. LIMITED
Total Quality Maintenance

www.magnagroup.com

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Features and Benefits

- Excellent anti-wear characteristic to prevent load-carrying surfaces from excessive wear.
- Highly resistant to oxidation and corrosion, which extends service life of machinery and equipment.
- Anti-emulsifier to protect parts / components from water contamination which is one of the main causes of corrosion and is detrimental to performance of machinery/equipment.
- Proprietary additives to prevent foaming which is usually oxygen carrier under rigorous operating conditions

Recommended Applications

- Lubrication of machineries and equipment in nearly any factory for better protection against wear, longer equipment service life and lower maintenance costs.
- For circulation systems composing of machineries/equipment and components such as pumps, electric motors, bearings and enclosed gears.
- For hydraulic equipment requiring load carrying and bearing lubricants.

Typical Data

TEST	ASTM TEST METHOD	ISO VG 32	ISO VG 46	ISO VG 68
Appearance	Visual	Amber	Amber	Amber
Density, kg/L @ 15°C	D-1298	0.872	0.880	0.887
Viscosity, cSt @ 40°C @ 100°C	D-445	32	46	68
	D-445	5.4	6.8	8.7
Viscosity Index	D-2270	103	101	100
Flash Point, COC, C(°F)	D-92	225(437)	230(446)	243(469)
Pour Point C(°F)	D-97	-30(-22)	-27(-17)	-27(-17)
Total Acid Number, mg KOH/g	D-974	0.6	0.6	0.6
Carbon Residue, Conradson, %	D-524	0.02	0.02	0.03
Foaming Characteristics All Sequences, After Settling	D-892	Nil	Nil	Nil
Rust-Preventing Characteristics	D-665	Pass	Pass	Pass

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.
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 220	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**	64742-65-0	5mg/m ³ *	-

SECTION II - PHYSICAL CHARACTERISTICS

<i>Boiling Point</i>	N.A.	<i>Specific Gravity (H₂O = 1)</i>	~0.9
<i>Vapor Pressure (@25°C, mmHg)</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 Clear liquid with negligible odour

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, hydrogen peroxide, chromic acid, bromine.

Hazardous Decomposition or Products

Incomplete combustion and high temperature thermal decomposition may promote oxides of carbon, sulfur and phosphorus.

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

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	Eye Protection	
Rubber or plastic oil resistant gloves.	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.

Transportation: Not classified.

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