

# **Technical Data Sheet**







# ALMAPLUS GREASE ALUMINUM COMPLEX HIGH TEMPERATURE & EP GREASE

## **Product Description**

Aluminum complex extreme pressure grease for heavy industrial use, Alma plus Industrial Lubricant is extremely versatile, minimizing inventory requirements and misapplication because it works in many different applications. It is especially effective in severe operations caused by moisture or high temperatures. Its robust aluminum complex formulation seals out water and other contaminants that can wreak havoc on the long-term life of equipment. Alma plus Industrial grease protects against oxidation, rust and corrosion, and its exceptional wear reduction has led to redefine "normal" or "expected" equipment life. With longer bearing life, fewer repairs, less downtime and lower lubricant consumption, switching to Alma plus has helped many companies lower their maintenance costs.

## **Beneficial Qualities**

#### **Reduces Wear**

- Reduces friction, heat and wear
- Seals out dirt and other contaminants
- Protects against welding and scoring
- Adheres to metal surfaces even at high speeds
- Has a Timken OK load of 45 lb (20.4 kg

### **Protects from Moisture**

- Seals out water
- Will not emulsify or wash out when moisture is present
- Protects against rust and corrosion

#### Withstands Heat & Cold

- Retains consistency and lubricating qualities over broad range of operating temps and conditions
- Exhibits excellent reversibility characteristics and won't bleed or cake when it cools
- Performs beyond limits of ordinary greases because of its oxidation resistance
- Has a high dropping point of 232°C (450°F).
- Maintains excellent pump ability and lubricating characteristics at temps down to -29°C (-20°F)

## **Provides Extended Service**

- Retains soft body and plasticity much longer than ordinary greases
- Requires less lubricant consumption

## **Available Grades**

- NLGI 2
- NLGI 1-1/2

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## Recommendations- Alma plus works well in centralized lubrication systems.

## **Typical Applications**

- Plain, anti-friction, high-speed and slow-speed bearings
- Conveyor, fan and wheel bearings
- Electric motors
- Forging equipment
- Machine tools
- Presses
- Rotary aerators
- U-joints

## **Typical Properties**

Thickener Type	Aluminum Complex	Aluminum Complex
Color	Beige/Brown	Beige/Brown
NLGI Grade	2	1-1/2
Worked 60 Penetration ASTM D217	280	315
Dropping Point °C (°F), ASTM D2265	232 (450)	232 (450)
Base Fluid Characteristics		
Viscosity @ 100°C, cSt, ASTM D445	18	18
Viscosity @ 40°C, cSt, ASTM D445	220	220
Oxidation drop in psi @ 100 hours, ASTM D942	5	4
Oxidation drop in psi @ 1,000 hours, ASTM D942	15	12
Corrosion Prevention DI H2 O, ASTM D1743	Pass	Pass
Oil Separation 30 hours @ 100°C, % bleed, ASTM D6184	2	3
Timken OK Load lbs, ASTM D2509	45	45
Four-Ball EP Weld Point kgf, ASTM D2596	400	-
Four-Ball EP Load Wear Index kgf, ASTM D2596	64	-
Water Washout % loss, ASTM D1264	1.25	-
Wheel Bearing Leakage gram loss, ASTM D1263	1.2	3

Available Packs: 1, 5, 18, 50 and 180 Kg.

### Shelf Life - 36 Months from the Manufacturing month.

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<sup>\*</sup> All related specifications are meets or exceeds. Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly. The Material Safety Data Sheet (MSDS) are available upon request through our sales office.



# **Material Safety Data Sheet**

#### PRODUCT AND COMPANY IDENTIFICATION

**ALMAPLUS GREASE** Product Supplier PETRELPLUS INC.

One World Center, Tower One, 9th Floor, Senapati Bapat Marg, Lower Parel, Mumbai-400013, Maharashtra.

Call # +91 22 6216 7072 (Monday to Friday) Cell # +91 93522 25457 marketing@petrelplus.com www.petrelplus.com

#### COMPOSITION

No harmful substances. Composition of high performance base oil, Aluminum Complex thickener and Proprietary additives.

#### HAZARDS INDENTIFICATION

Not classified as Hazardous.

#### FIRST-AID MEASURES

**RESPIRATORY SYSTEM:** Remove to fresh air and get medical attention.

**INGESTION:** Do not induce vomiting. Wash mouth out with water and obtain medical attention. **EYES:** Rinse immediately with plenty of water for at least 10 minutes. Get Medical Attention.

**SKIN:** Remove contaminated clothing. Wash affected area with soap and water, get medical attention.

#### FIRE-FIGHTING METHODS

Foam, carbon dioxide or dry powder.

#### ACCIDENTAL RELEASE MEASURE

Contain and absorb in sand or earth. Ensure no material enters drains or water courses. Dispose of as solid waste in accordance with the relevant waste disposal regulations.

#### STORAGE AND HANDLING

Handling - At ambient temperatures wear gloves overalls and eye protection. The work area should be

adequately ventilated. No eating drinking or smoking in the work area.

Storage - Store in delivery packs in a cool & dry place.

#### **EXPOSURE CONTROL / PERSONAL PROTECTION**

#### **Exposure Standard:**

The substance with exposure limit is: Notation 1: Exposure Standard: 2nd substance with exposure limit is: Notation 2:

#### PERSONAL PROTECTION

**Respiratory Protection:** 

Type of Cartridge (if Applicable): Eye Protection: Safety Spectacles

Hand Protection: Gloves butyl or nitrile rubber

Industrial Hygiene: No eating drinking or smoking in the work area Ventilation: At room temperature handle in a well-ventilated area. Use exhaust ventilation if exposure to flume or aerosol can occur.

## PROTECTION AGAINST FIRE AND EXPLOSION

Combustible but not readily ignited. No explosion hazard.

EC SAFETY PHRASES: Not classified as hazardous.

## TYPICAL PROPERTIES

- Beige/Brown Color

Timken OK Load, lbs - 45 Drop Point, <sup>0</sup>C - 232

Worked 60 Penetration - 280 and 315

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9



# **Material Safety Data Sheet**

#### 10. STABILITY AND REACTIVITY

HAZARDOUS REACTIONS

#### Comments

HAZARDOUS DECOMPOSITION PRODUCTS Thermal decomposition produces noxious fumes.

#### 11. TOXICOLOGICAL INFORMATION

LD50 Acute Oral Toxicity: > 5000:mg/Kg:Rat

LC50 Acute Inhalation: :mg/1 Eye Irritation: No: Rabbit Skin Irritation: No.: Rabbit

Sensation: No Further Information:

#### 12. ECOLOGICAL INFORMATION

LC50 (96 Hour): mg/1 EC50 (24 Hour): mg/1

Biodegradability (Coupled units):

#### 13. DISPOSAL CONSIDERATIONS

Solid material should be incinerated. Material absorbed on sand should be disposed of as solid waste.

#### 14. TRANSPORT INFOMRATION

IMDG No.: Not classified

Packing Groups: IATA-DGR Class No.: Not classified

TREMCARD: Not classified RID/ADR Class No.: Not classified

Other Information

#### 15. REGULATORY INFORMATION

Classification and labeling according to EC Directives 67/548 Not classified as hazardous. EC Risk Phrases Not classified as hazardous. Other Hazardous EC Safety Phrases Not classified as hazardous

#### 16. OTHER INFORMATION: PRODUCT SAFETY

For safety reasons, it is IMPERATIVE that customer: - Ensure that all those within their control who use the products are supplied with all relevant information contained within the Material Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions or warning.

DISCLAIMER/USER'S RESPONSIBILITY: PETRELPLUS INC. Provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriate use.

