

# MATERIAL SAFETY DATA SHEET



Pakistan State Oil

## 1. PRODUCT IDENTIFICATION AND COMPANY DETAILS

### PSO ALPHA GREASE NLGI 2 & 3

|                                       |   |
|---------------------------------------|---|
| <b>MSDS NO.:</b>                      | 026-001   |
| <b>PRODUCT CODE:</b>                  | 6400112, 6400212  |
| <b>APPLICATION:</b>                   | Industrial Grease   |
| <b>MANUFACTURER/SUPPLIER:</b>         | <b>Pakistan State Oil Company Limited</b><br>Lubricants Technical Services<br>Lubricants and Chemicals Department<br>7 <sup>th</sup> Floor, PSO House,<br>Khayaban-e-Iqbal, Clifton,<br>Karachi, Pakistan.<br>Tel. 92 21 99203866 |
| <b>EMERGENCY TELEPHONE NUMBER:</b>    | 0800-03000  |
| <b>PRODUCT TECHNICAL INFORMATION:</b> | <a href="mailto:lubricants.technical@psopk.com">lubricants.technical@psopk.com</a>  |
| <b>REVISION NO.:</b>                  | 05  |
| <b>REVISION DATE:</b>                 | April 02, 2024  |

## 2. HAZARDS IDENTIFICATION

This material is not classified as hazardous according to the Globally Harmonized System (GHS) of classification and labelling of chemicals, but should be handled in accordance with good industrial hygiene and safety practices.

### HAZARD STATEMENTS

#### Physical Hazards

Not classified as physical hazard according to classifications, labelling and packaging (CLP) criteria.

#### Health Hazard

Not classified as health hazard according to classifications, labelling and packaging (CLP) criteria.

#### Environmental Hazard

Not classified as environmental hazard according to classifications, labelling and packaging (CLP) criteria.

### GHS PRECAUTIONARY STATEMENTS

- P102: Keep out of reach of children.
- P232: Protect from moisture.
- P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
- P262: Do not get in eyes, on skin, or on clothing.
- P273: Avoid release to the environment.
- P281: Use personal protective equipment as required.

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## GHS RESPONSE STATEMENTS

- P301: IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Seek medical treatment.  
P302: IF ON SKIN: Gently wash with plenty of soap and water. If irritation occurs, get medical advice/attention.  
P304: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P306: IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.

## OTHER HAZARDS

Prolonged exposure with skin might result in potential health risks, which may vary from person to person. Used engine oil may contain hazardous components which have the potential to cause severe skin disease/s.  
See Toxicological Information, section 11 of this Material Safety Data Sheet.

## 3. COMPOSITION/INFORMATION OF INGREDIENTS

This material is defined as mixture.

| Name                                 | CAS No.                | Concentration by Weight |
|--------------------------------------|------------------------|-------------------------|
| Highly refined petroleum distillates | 64741-50-0, 64741-51-1 | Appropriate             |
| Hydrogenated Castor Oil              | 8001-78-3              | Appropriate             |
| Lithium Hydroxide Monohydrate        | 1310-66-3              | Appropriate             |
| Anti-Oxidant                         | -                      | Appropriate             |
| Anti-Rust                            | -                      | Appropriate             |

## 4. FIRST AID MEASURES

**IN CASE OF CONTACT:** Wash eyes thoroughly with plenty of water, ensuring that eyelids are kept open. Seek medical advice if any pain or irritation develops or persists.

**IN CASE OF SKIN CONTACT:** Wash skin thoroughly with plenty of soap and water. If clothing is contaminated then immediately remove contaminated clothing and shoes. If product is in direct contact with any exposed wound then the individual should immediately seek medical attention.

**IN CASE OF INGESTION:** If ingested, do not induce vomiting. Seek immediate medical advice.

**IN CASE OF INHALATION:** Exposure to fumes or vapors may cause irritation in nose or throat; move the affected person to fresh air. If coughing or respiratory discomfort occurs then seek medical attention.

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**NOTE TO PHYSICIAN:** Treat symptomatically.

## 5. FIRE FIGHTING MEASURES

### APPROPRIATE EXTINGUISHING MEDIA

- Use foam, Dry Chemical Powder, Carbon dioxide or water fog.

### INAPPROPRIATE EXTINGUISHING MEDIA

- Do not use water jets.

### FIRE FIGHTING INSTRUCTIONS

- In case of fire, evacuate from the area immediately.
- Cordon off area to prevent spreading of exposed material.
- In case of fires in confined spaces, only trained personnel should deal with fires using appropriate breathing apparatus.
- Water may be used to cool nearby heat exposed areas/objects/packages.
- Avoid spraying directly on storage containers to avoid risk of boil-over.

### HAZARDOUS COMBUSTION PRODUCTS

- As a result of combustion, carbon dioxide, carbon monoxide, airborne solids, liquids, gases, smoke, fumes, oxides of Sulfur, Nitrogen, Phosphorus and Zinc may evolve.

**FLASH POINT:** >200°C (ASTM D-92)

## 6. ACCIDENTAL RELEASE MEASURES

### PERSONAL PROTECTION

- Avoid contact with spilled materials. In case of contact with spilled material follow appropriate measures as mentioned in section 4.

### SPILLED MATERIAL CONTAMINATION

- Spilled material may make surfaces slippery.
- Scoop up excess grease to protect drains from possible spills and use appropriate barriers.
- Do not wash-down product into drainage system.
- In case of large spills contact the appropriate authorities.
- In the event of spillage of water, prevent the spread of product by use of suitable barrier equipment. Recover product from the surface.

### ENVIRONMENTAL PROTECTION

- Contain and recover spilled material by using scoop or any other appropriate tool.
- Place contaminated materials in disposable containers and dispose of in an environment friendly manner.
- Protect environmentally sensitive areas and water supplies.

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## 7. HANDLING AND STORAGE

### SAFE HANDLING ADVICE

- Avoid contact with eyes. If splashing is expected to happen wear a full-face shield or goggles as suitable.
- Avoid frequent or prolonged skin contact. Wash hands thoroughly and immediately right after contact.
- Use appropriate safety shoes during drum handling.
- Maintain high standards of personal hygiene, good working practices and plant cleanliness at all times.
- For cleaning use disposable cloths and discard them when soiled. Do not put soiled cloths into pockets.

### STORAGE ADVICE

- Grease packages should be stored under cover with appropriate ventilation.
- Store away from heat and ignition sources.
- Wooden planks should be used to keep the drums and packages clear of the ground to prevent rusting and damage.
- Use properly labelled packages to ensure correct usage of the product.
- Keep grease containers/drums tightly closed to avoid contamination.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### EXPOSURE LIMITS/ENGINEERING CONTROLS

- This material is not classified as hazardous, however should be handled in accordance with applicable regulations.
- Consider potential exposure limits, work activities and other materials when selecting appropriate Personal Protective Equipment (PPEs) and structuring engineering controls.
- Ensure proper ventilation.

### PERSONAL PROTECTIVE EQUIPMENT

Selection of PPEs is dependent on multiple factors such as working conditions, exposure limits, applications, handling practices, concentration and ventilation.

**Eye/Face Protection:** Use protective eye wear and/or face shield to protect eyes and face in case of splashes while handling.

**Hand Protection:** While handling product, use appropriate gloves such as nitrile rubber, PVC or neoprene.

**Skin Protection:** If skin contact is expected, wear chemical resistant protective clothing. Protective clothing should be regularly kept dry and cleaned. Change contaminated clothing as soon as reasonably possible. Wash any contaminated underlying skin with soap and water.

**Respiratory Protection:** Under normal conditions of application, no respiratory protection is required. In case of exposure of workers with high concentration of airborne contaminants then use of appropriate combination of respiratory mask and filter meeting relevant legislations is recommended.

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## ENVIRONMENTAL CONTROLS

Refer appropriate environmental regulations to limit discharge of product in air, water and soil.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

The typical characteristics mentioned below are based on current mean values and do not constitute as specification.

| PROPERTIES                      | TYPICAL RESULTS         |                         |
|---------------------------------|-------------------------|-------------------------|
|                                 | NLGI                    | 2                       |
| Appearance                      | Smooth Grease           | Smooth Grease           |
| Texture                         | Homogeneous             | Homogeneous             |
| Color                           | Light Brown             | Light Brown             |
| Odor                            | Slight Hydrocarbon Odor | Slight Hydrocarbon Odor |
| Soap Base                       | Lithium Soap            | Lithium Soap            |
| Penetration, worked, 60 strokes | 275                     | 234                     |
| Dropping Point, °C              | 180                     | 180                     |
| Operating Temperature           | -10°C – 130°C           | -10°C – 130°C           |
| Flash Point (CC), °C            | >204                    | >204                    |

## 10. STABILITY & REACTIVITY

### STABILITY

Material is stable under normal conditions.

### REACTIVITY

Possibility of reaction with strong oxidizing agents and acids.

### HAZARDOUS DECOMPOSITION

Material does not decompose at ambient conditions.

### CONDITIONS TO AVOID

Avoid exposure from excessive heat, direct sunlight and sources of ignition.

### INCOMPATIBLE MATERIALS

Strong oxidizing agents and acids.

## 11. TOXICOLOGICAL INFORMATION

### POSSIBILITY OF EXPOSURE

Exposure can occur via skin, eye, inhalation or accidental ingestion of the product.

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## INHALATION

**Toxicity:** Less toxic based on available data.  
**Irritation:** Negligible hazard at ambient conditions.

## INGESTION

**Toxicity:** Less toxic based on available data.

## EYE CONTACT

Slightly irritating to the eye.

## SKIN CONTACT

Unlikely to bring any harm to the skin on short-term or infrequent contact but continued or repeated exposure may cause irritation to skin.

## SENSITISATION

Based on available data, product is not a skin sensitizer.

## GERM CELL MUTAGENICITY

Non-Mutagenic.

## CARCINOGENICITY

Based on available data product is classified as non-carcinogenic.

## REPRODUCTIVE TOXICITY

Based on available data product is not found to be reproductive toxicant.

## 12. ECOLOGICAL INFORMATION

The information provided below is representative of the product, similar products and product as a whole. This does not indicate of impact of individual components.

### MOBILITY

Spillages may enter into the soil causing deterioration of soil quality and contamination of ground water.

### BIODEGRADABILITY

It is unlikely that the product will biodegrade readily.

### AQUATIC TOXICITY

Spills may contaminate water, causing physical damage to organisms. Oxygen transfer could also be impaired.

### BIO-ACCUMULATIVE POTENTIAL

The base oil component has the potential to bioaccumulate.

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## 13. DISPOSAL CONSIDERATIONS

- Dispose of material via an authorized person/licensed waste disposal contractor in accordance with national and local laws & regulations.
- Contamination of soil, ground water and environment through waste product is prohibited.

### EMPTY PRODUCT CONTAINERS

Product containers should be properly emptied and appropriately stored till reconditioned or disposed. Empty containers should be properly recycled, recovered or disposed of via licensed contractor and as per applicable government regulations.

## 14. TRANSPORT INFORMATION

### ADR (Accord Dangereux Router)

Not classified as hazardous material for land transport.

### RID (Reglement International concernant le transport des marchandises Dangereuses par chemin de fer)

Not classified as hazardous material for transportation via railroad.

## 15. REGULATORY INFORMATION

The regulatory data is not meant to be inclusive of all components. This material may be subject to additional rules.

## 16. OTHER INFORMATION

### COMPILED BY:

Lubricant Technical Services-L&C  
Pakistan State Oil Co. Ltd.  
7<sup>th</sup> Floor, Khayaban-e-Iqbal, Clifton,  
Karachi-75600.

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