MATERIAL SAFETY DATA SHEET

1. **Product Use:** AUTOMOTIVE GEAR OIL

2. **Synonyms: ZEAL GEAR LUBE OIL HD SAE 85W90 GL-5**

3. **Company Identification**

ZEAL INT LUBRICANTS IND L.L.C
PO Box: 47480, Behind Khansaheb Building,
Sharjah, UAE.

---

4. HAZARDS IDENTIFICATION
Emergency and Hazards Overview
CAUTION: Contains Petroleum Lubricant. Repeated skin contact can cause skin disorders.
ATTENTION: Used motor oil is a possible skin cancer hazard based on animal data. Repeated exposure to oil mist in excess of the OSHA limit (5mg/m3) can result in accumulation of oil droplets in pulmonary tissue.

NFPA Ratings: Health 1 **Flammability** 1 **Reactivity** 0
Primary Route of Exposure: Skin X **Inhalation** -- **Eye** X
Health Effect Information
Eye Contact: This product is practically non-irritating to the eyes upon direct contact. Based on testing of similar products and/or components.

Skin Contact: Avoid skin contact. This product is minimally irritating to the skin upon direct contact. Based on testing of similar products and/or components. Prolonged or repeated contact may result in contact dermatitis which is characterized by dryness, chapping, and reddening. Prolonged or repeated contact may result in oil acne which is characterized by blackheads with possible secondary infection. Avoid prolonged and repeated skin contact with used motor oils. See Section 11 - Toxicological Information.

Inhalation: This product has a low vapor pressure and is not expected to present an inhalation hazard at ambient conditions. Caution should be taken to prevent aerosolization or misting of this product. On rare occasions, prolonged and repeated exposure to oil mist poses a risk of pulmonary disease such as chronic lung inflammation. Signs of respiratory effects vary with concentration and length of exposure and include nasal discharge, sore throat, coughing, bronchitis, pulmonary edema and difficulty breathing. Shortness of breath and cough are the most common symptoms.

Ingestion: Do not ingest. This product is relatively non-toxic by ingestion. This product has laxative properties and may result in abdominal cramps and diarrhea. Exposure to a large single dose, or repeated smaller doses, may lead to lung aspiration, which can lead to lipid pneumonia or chronic lung inflammation. These are low-grade, chronic localized tissue reactions.

Medical Conditions Aggravated by Exposure: Drying and chapping may make the skin more susceptible to other irritants, sensitizers and disease.

Other: No information available

---

5. FIRST AID INFORMATION

Eye Contact: Immediately flush eyes with large amounts of water and continue flushing until irritation subsides. If material is hot, treat for thermal burns and seek immediate medical attention.

Skin Contact: No treatment is necessary under ordinary circumstances. Remove contaminated clothing. Wash contaminated area thoroughly with soap and water. If material is hot, submerge injured area in cold water. If victim is severely burned, remove to a hospital immediately.

Inhalation: This material has a low vapor pressure and is not expected to present an inhalation exposure at ambient conditions. If vapor or mist is generated when the material is heated, and the victim experiences signs of respiratory tract irritation, remove to fresh air.

Ingestion: No treatment is necessary under ordinary circumstances. Do not induce vomiting. If victim exhibits signs of lung aspiration such as coughing or choking, seek immediate medical assistance.
Notes to Physician: No information available
Other: No information available

---

6. FIRE AND EXPLOSION INFORMATION

Flammable Properties
Flash Point: 236ºC (typical) by Test Method: ASTM 92
Flammable Limits in Air
Upper Percent: No data available
Lower Percent: No data available
Autoignition Temperature: No data available
Test Method: No information available
NFPA Classification: Class III-B combustible liquid
Extinguishing Media: Use dry chemical, foam, or carbon dioxide.
Fire Fighting Measures
Special Fire Fighting Procedures and Equipment: Water may be ineffective but can be used to cool containers exposed to heat or flame to prevent vapor pressure buildup and possible container rupture.

Caution should be exercised when using water or foam as frothing may occur, especially if sprayed into containers of hot, burning liquid.
Unusual Fire and Explosion Conditions: Dense smoke may be generated while burning. Carbon monoxide, carbon dioxide, and other oxides may be generated as products of combustion.
Hazardous Combustion By-Products: None
Other: No information available

---

7. ACCIDENTAL RELEASE MEASURES

Personnel Safeguards: Consult Health Effect Information in Section 3, Personal Protection Information in Section 8, Fire and Explosion Information in Section 5, and Stability and Reactivity Information in Section 10.
Regulatory Notifications: Notify appropriate authorities of spill.
Containment and Clean up: Contain spill immediately. Do not allow spill to enter sewers or Watercourses. Absorb with appropriate inert material such as sand, clay, etc. Large spills may be Picked up using vacuum pumps, shovels, buckets, or other means and placed in drums or other Suitable containers.
Other: No information available

---

8. HANDLING AND STORAGE INFORMATION

Handling: Fire extinguishers should be kept readily available. See NFPA 30 and OSHA 1910.106--Flammable and Combustible Liquids.
Storage: Do not transfer to unmarked containers. Store in a closed containers away from heat, sparks, open flame, or oxidizing materials.
Empty Container Warnings
Drums: Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioned, or properly disposed.
Plastic: Empty container may retain product residues.
Other: No information available

---

9. EXPOSURE CONTROLS / PERSONAL PROTECTION INFORMATION

Exposure Limits and Guidelines
This product does not contain any components with OSHA or ACGIH exposure limits.
Personal Protective Equipment
Eye/Face Protection: Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed into eyes, wear plastic face shield or splash-proof safety Goggles.
Skin Protection: No skin protection is required for single, short duration exposures. For prolonged or repeated exposures, use impervious clothing (boots, gloves, aprons, etc.) over parts of the body subject to exposure. If handling hot material, use insulated protective clothing (boots, gloves, Aprons, etc.). Launder soiled clothes. Properly dispose of contaminated leather articles including Shoes, which cannot be decontaminated.

Respiratory Protection: Respiratory protection is not required under conditions of normal use. If vapor or mist is generated when the material is heated or handled, use an organic vapor respirator with dust and mist filter. All respirators must be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres.
Personal Hygiene: Consumption of food and beverage should be avoided in work areas where Hydrocarbons are present. Always wash hands and face with soap and water before eating, Drinking, or smoking.
Engineering Controls / Work Practices
Ventilation: If vapor or mist is generated when the material is heated or handled, adequate ventilation in accordance with good engineering practice must be provided to maintain concentrations below the specified exposure or flammable limits.
Other: The OSHA permissible exposure limit (PEL) and ACGIH threshold limit value (TLV) for oil mist is 5 mg/m3. The ACGIH short-term exposure limit (STEL) for oil mist is 10 mg/m3.

---

10. PHYSICAL AND CHEMICAL PROPERTIES
Appearance: Amber to dark amber
Odor: Hydrocarbon - mild **Vapor Pressure:** No data available
Physical state: Liquid **Vapor Density (air=1):** No data available
PH: No data available **Percent Volatile by Volume:** No data available
Boiling Point: No data available **Volatile Organic Content:** No data available
Melting Point: No data available **Molecular Weight:** No data available
Specific Gravity: 0.890 g/cc @ 60ºF / 60ºF **Average Carbon Number:** No data available
Pour Point: Data Not Available, **Viscosity @ 100ºF:** No data available
Viscosity @ 100ºC: 17.4 CST (Typical)
Solubility in Water: Negligible in water
Octanol / Water Coefficient: Log Know = No data available

---

11. STABILITY AND REACTIVITY INFORMATION
Chemical Stability: Stable
Conditions to Avoid: High heat and open flames.
Incompatible Materials to Avoid: May react with strong oxidizing agents.
Other: No information available

---

12. TOXICOLOGICAL INFORMATION
Primary Eye Irritation: No information available
Primary Skin Irritation: No information available
Acute Dermal Toxicity: No information available
Sub-acute Dermal Toxicity: No information available
Dermal Sensitization: No information available
Inhalation Toxicity: No information available
Inhalation Sensitization: No information available

Oral Toxicity: No information available
Mutagenicity: No information available
Carcinogenicity: The International Agency for Research on Cancer (IARC) has concluded that there is inadequate data to evaluate the carcinogenicity to experimental animals of this class of product.IARC has concluded there is sufficient evidence that used gasoline-engine motor oils produce skin tumors in experimental animals. Also, IARC has determined this class of products belongs to Group 3-"not classifiable as to its carcinogenicity to humans".
Reproductive and Developmental Toxicity: No information available
Teratogenicity: No information available
Immunotoxicity: No information available
Neurotoxicity: No information available
Other: No information available

---

13. ECOLOGICAL INFORMATION

Aquatic Toxicity: No information available
Terrestrial Toxicity: No information available
Chemical Fate and Transport: No information available
Other: No information available

---

14. DISPOSAL INFORMATION

Regulatory Information: All disposals must comply with federal, state, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to state and local regulations. Caution! If regulated solvents are used to clean up spilled material, the resulting waste mixture may be regulated. Department of Transportation (DOT) regulations may apply for transporting this material when spilled.
Waste Disposal Methods: Waste material may be land filled or incinerated at an approved facility. Materials should be recycled if possible.
Other: No information available

---

15. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)
Highway / Rail (Bulk): Not Regulated
Highway / Rail (Non-Bulk): Not Regulated
For US shipments, US DOT law requires the shipper to determine the proper shipping description of the material that is being shipped. The shipping information and description contained in this section may not be suitable for all shipments of this material, but may help the shipper determine the proper shipping description for a particular shipment.
International Information
Vessel: IMDG Regulated: -- IMDG Not Regulated: X
Air: ICAO Regulated: -- ICAO Not Regulated: X
Other: No information available

---

16. OTHER INFORMATION

Health and Environmental Label Language

WARNING: Continuous contact with used gasoline engine oils has caused skin cancer in animal Tests.

ATTENTION: Prolonged or repeated skin contact may cause oil acne or dermatitis. Repeated Exposure to oil mist in excess of the OSHA limit (5mg/m3 can result in accumulation of oil Droplets in pulmonary tissue.

Precautionary Measures: Avoid prolonged or repeated contact with eyes, skin and clothing. Avoid generation and inhalation of oil mists.

First Aid: Skin Contact: Wash skin with soap and water. Launder soiled clothes and discard oil soaked shoes. If irritation persists seek medical attention. Eye Contact: Flush with water. If Irritation persists seek medical attention. Ingestion: Do not induce vomiting. In general, no Treatment is necessary unless large quantities of product are ingested. If discomfort persists seek Medical assistance. Instructions in Case of Fire or Spill: In case of fire, use water fog, foam, dry chemical or carbon dioxide. Water spray may be ineffective, but can be used to cool containers. Do not use a direct stream of water. Material will float and can be reignited on surface of water.

Spill or Leak: Dike and contain spill. Do not use water; soak up with absorbent material such as Clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper Disposal. Contains: highly refined petroleum distillate, mixture; zinc compounds, mixture; polymer additives, mixture.

KEEP OUT OF REACH OF CHILDREN. (If intended for retail also)

Approved by : _____