

# MATERIAL SAFETY DATA SHEET

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Revised: 31 July 2003  
MSDS No: D3687

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## SECTION 1: PRODUCT IDENTIFICATION & EMERGENCY INFORMATION

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**PRODUCT NAME:** Titan Multipurpose Gear Lubricant 85W140 Gear Oil

**CHEMICAL FAMILY:** Petroleum Oil

**EMERGENCY TELEPHONE NUMBER:** CHEMTREC 800-424-9300  
**Additional Health Safety Information:**  
**Monday - Friday, 8 a.m. - 5 p.m. Mountain Standard Time** 303-289-4483

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## SECTION 2: COMPONENTS AND HAZARD FORMATION

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This product is a mixture and the components may be proprietary information. In the event of a medical emergency, compositional information will be provided to a physician or nurse. This product may be hazardous as defined in 29 CFR 1910.1200, based on the following compositional information.

COMPONENTS	CAS No.	OSHA PEL	ACGIH TLV
Residual Oils, Petroleum, Solvent Refined	64742-01-4	5mg/m <sup>3</sup> Oil Mist	5mg/m <sup>3</sup> Oil Mist
Olefin Sulfide	Unknown	N/E	N/E
Substituted Thiadiazole	Unknown	N/E	N/E

N/E – None established

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## SECTION 3: HEALTH INFORMATION & PROTECTION

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**Eye Contact:** May cause slight eye irritation.

**Skin Contact:** May cause irritation with prolonged exposure.

**Inhalation:** This product is not expected to mist or give off vapors with normal handling and ambient temperatures. Avoid inhalation of any oil mist or vapors above the suggested exposure levels.

**Ingestion:** Not expected to be harmful if swallowed.

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## Section 4: FIRST AID MEASURES

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**Eye Contact:** Flush immediately with large amounts of water for at least 15 minutes. Get medical attention if irritation develops or persists.

**Skin Contact:** Wash with soap and water. Remove contaminated clothing and shoes. Launder contaminated clothing before reuse. Seek medical attention if redness or irritation occurs.

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## Section 4: FIRST AID MEASURES (cont)

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**Inhalation:** If exposed to excessive levels of material in the air, move the exposed person to fresh air. Provide oxygen if breathing is difficult. If breathing has stopped, apply artificial respiration.

**Ingestion: Do not induce vomiting.** If the individual is conscious, give a glass of milk or water. Seek prompt medical attention. **DO NOT attempt to give an unconscious person anything by mouth.**

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## SECTION 5: FIRE AND EXPLOSION HAZARD DATA

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**Flash Point:** 210°C (410°F)

**Method of Determination:** ASTM D92

**Flammable Limits:** Not Available

**LEL:** Not Available

**UEL:** Not Available

**Autoignition Temperature:** Not Available

**Extinguishing Media:** CO<sub>2</sub>, Dry chemical, Foam, Water Fog

**Fire Fighting:** Wear self-contained breathing apparatus. Isolate "fuel" supply from fire. Use water spray to cool fire-exposed surfaces and to protect personnel. Sealed containers may be cooled with water spray. Avoid spraying water directly into storage containers due to boil over and fire spread.

**Hazardous Decomposition Products Under Fire Conditions:** Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Hydrogen sulfide, alkyl mercaptans and sulfides may also be released. Under combustion conditions, the oxides of nitrogen, phosphorus, and sulfur will be formed. Free aromatic amine may be liberated in reducing atmosphere.

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### Land Spill

Eliminate sources of ignition. Prevent additional discharge of material, if possible to do so without hazard. The material poses a slipping hazard; do not walk through spilled material. For small spills clean up using appropriate techniques including absorbent materials or pumping and follow all precautions in Exposure Controls/Personal Protection. For large spills follow prescribed procedures for reporting and responding. Prevent liquid from entering sewers, watercourses, or low areas. If the liquid is too viscous for pumping, scrape it up. Consult an expert on disposal of recovered material and ensure conformity to local, State, or Federal disposal regulations.

### Water Spill

Remove from surface by skimming or with suitable absorbent. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in non-confined waters. Consult an expert on disposal of recovered material and ensure conformity to local, State and Federal disposal regulations.

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## SECTION 7: STORAGE AND HANDLING

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**Handling:** Keep containers closed when not in use. Hands should be washed thoroughly after handling. EMPTY CONTAINER WARNING: "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. **DO NOT** pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode

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## SECTION 7: STORAGE AND HANDLING (cont)

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and cause injury or death. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of.

**Electrostatic Accumulation Hazard:** Use proper bonding and/or grounding procedures.

**Storage:** Keep containers closed. Store in a well ventilated area. Do not store near open flame, heat or other sources of ignition. Odorous and toxic fumes may form if stored at temperatures in excess of 45° C, 113° F.

**Storage Temperature:** 45° C, 113° F

**Storage/Transport Pressure mmHg:** Atmospheric

**Loading/Unloading Temperature:** Ambient

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## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

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### EXPOSURE CONTROLS

The use of local exhaust ventilation is recommended to control process emissions near the source. Provide mechanical ventilation of confined spaces. See respiratory protection recommendations.

### PERSONAL PROTECTION

**Eye Protection:** Chemical goggles or safety glasses with side shields. Have suitable eye wash water available.

**Skin Protection:** Use of chemical resistant gloves recommended. Long sleeve shirt is also recommended. Use heat protective gloves when handling product at elevated temperatures.

**Respiratory Protection:** Use a NIOSH/MSHA approved respirator that provides adequate protection if the recommended exposure limit be exceeded.

The ACGIH and OSHA recommended Exposure Limits as an oil mist: ACGIH TWA-5 mg/m<sup>3</sup> (Mist) ACGIH STEL-10 mg/m<sup>3</sup> (Mist) OSHA PEL- TWA-5 mg/m<sup>3</sup> (Mist).

At elevated temperatures, hydrogen sulfide may be released. The ACGIH and OSHA recommended Exposure Limits are: TWA 10 ppm, STEL 15 ppm.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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**APPEARANCE:** Dark amber colored liquid

**BOILING POINT:** Not available

**POUR POINT:** -12°C

**VAPOR DENSITY (AIR=1):** N/A

**EVAPORATION RATE:** Negligible

**VISCOSITY:** 27.1 centistokes @ 100°C; 392.8 centistokes @ 40°C

**ODOR:** Petroleum odor

**SPECIFIC GRAVITY (H<sub>2</sub>O=1):** 0.902 @ 15.6 ° C

**VAPOR PRESSURE (mmHg):** N/A

**MELTING POINT:** N/A

**SOLUBILITY IN WATER:** Minimal

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## SECTION 10: STABILITY AND REACTIVITY

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**Stability:** Material is normally stable at room temperature and pressure.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous Polymerization:** Polymerization will not occur.

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## SECTION 10: STABILITY AND REACTIVITY (cont)

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**Conditions to avoid instability:** None

**Hazardous decomposition products:** See Section 5 for thermal decomposition

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## SECTION 11: TOXICOLOGICAL INFORMATION

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**Eye Irritation:** May cause minimal irritation based on component data.

**Skin Irritation:** Not expected to be primary irritant. Prolonged or repeated contact may cause dermatitis. Symptoms include redness, edema, drying and cracking of the skin. Based on component data.

**Oral Toxicity:** The acute Oral LD50 in rats is >5 g/kg based on component data.

**Inhalation Toxicity:** No significant adverse health effects are expected to occur under normal conditions of use. However, exposure to petroleum mist at high levels may be irritating to the nose, throat and lungs and may cause headaches and dizziness. Based on component data.

**Additional Toxicology Information:** This product is formulated with mineral oils, which are considered to be severely refined and not considered to be carcinogenic under IARC. The oils in this product have not all been tested by the IP346 test.

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## SECTION 12: ECOLOGICAL INFORMATION

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This material is not expected to be readily biodegradable based on component data.

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## SECTION 13: DISPOSAL CONSIDERATIONS

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To determine the proper method of disposal, refer to RCRA (40 CFR 261) as well as federal EPA and state and local regulations. Conditions of use may cause this material to become a "Hazardous Waste", as defined by state or federal laws. Use approved treatment, transporters and disposal sites in compliance with all applicable laws.

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## SECTION 14: TRANSPORT INFORMATION

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U.S. Department of Transportation (DOT): Not regulated

Reportable Quantity: None

Freight Classification: None

Special Transportation Notes: None

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## SECTION 15: REGULATORY INFORMATION

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**TSCA:** All components of this product are listed on the TSCA Inventory

**SARA III, Section 313:** This product does not contain greater than 1% (greater than 0.1% for carcinogenic substance) of any chemical substances listed under SARA Section 313.

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## SECTION 15: REGULATORY INFORMATION (cont)

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**SARA Extremely Hazardous Substance:** This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

**Cal. Prop 65:** This product contains the following chemicals known to the state of California to cause cancer and/or birth defects based on impurity levels of components: <1 ppm cadmium, < 1 ppm Lead, 2 ppm arsenic, <3 ppm Ethyl acrylate, CAS no 140-88-5, < 1 ppm toluene.

**CERCLA Hazardous Substances: Stationary Reportable Quantities**

Component	Reportable Quantity (RQ)	Units	Reportable Quantity (RQ)	Units
Xylene	46226	Gallons	174918	Liters

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## SECTION 16: OTHER INFORMATION

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### HAZARD RATING SYSTEMS

This information is for people trained in:

National Paint & Coatings Association's (NPCA)

Hazardous Materials Identification System (HMIS)

National Fire Protection Association (NFPA 704)

	Identification of the Fire Hazards of Materials		KEYS
	NPCA-HMIS	NFPA 704	
HEALTH	1	1	4 = Severe
FLAMMABILITY	1	1	3 = Serious
REACTIVITY	0	0	2 = Moderate
			1 = Slight
			0 = Minimal

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## NOTATIONS

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The information and recommendations contained herein are to the best of Delta's knowledge and belief, accurate and reliable as of the date issued. Delta does not warrant or guarantee their accuracy or reliability, and Delta shall not be liable for any loss or damage arising out of the use thereof.

The information and recommendations are offered for the user's consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. If the buyer repackages this product, legal council should be consulted to ensure that proper health, safety and other necessary information is included on the container.

The Hazardous Materials Identification System (HMIS) and National Fire Protection Association (NFPA) ratings have been included by Delta to provide additional health and hazard classification information. The ratings recommended are based upon the criteria supplied by the developers of these rating systems, together with Delta's interpretation of the available data.

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## **NOTATIONS**

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**Supersedes: None**

**FOR ADDITIONAL INFORMATION, CONTACT YOUR SALES REPRESENTATIVE.**