

**SAFETY DATA SHEET****1. IDENTIFICATION OF SUBSTANCE****PRODUCT DETAILS:**

TRADE NAME: PULZAR Z-3 GREASE
CAS NUMBER: Not applicable for mixtures.
SYNONYMS: LITHIUM EP GREASE No. 2 + 2%Moly

MANUFACTURER'S NAME:

ADDRESS: THAI PETROLEUM & TRADING CO., LTD.
9-10TH Floor TP&T Tower,
1 Soi Vibhavadee-Rangsit 19
Vibhavadee-Rangsit Rd., Chatuchak, Chatuchak,
Bangkok 10900
Telephone: (662) 9361801-30
Fax: (662) 9361860
EMERGENCY CONTACT: (662) 9361801-30 (THAI PETROLEUM & TRADING CO., LTD)
REVISION DATE : August 26, 2019

2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Acute toxicity	
Oral :	Not Classified
Dermal :	Not Classified
Inhalation(Vapor) :	Not Classified
Skin corrosion/Irritation :	Not Classified
Eye damage/eye irritation:	Category 2
Sensitization :	
Respiratory:	Not Classified
Skin:	Not Classified
Germ cell mutagenicity:	Not Classified
Carcinogenicity:	Not Classified
Toxic to reproduction:	
Specific target organ toxicity (Single exposure) :	Classification not possible
Specific target organ toxicity (Repeated exposure):	Classification not possible
Hazardous to the aquatic environment	
Acute hazard :	Not Classified
Long-term hazard :	Not Classified
Hazardous to the Ozone layer :	Not Classified

2.2 Label elements

Signal Word : Warning

Hazard Phrase :
H319 : Cause serious eye irritation

Prevention Phrase :
P264 : Wash eye thoroughly after handling.
P280 : Wear eye protection/ Face protection

Response Phrase :
P305+P351+P338 : If in eyes : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 : If eye irritation persists: Get medical advice/attention

Storage :

Disposal :

3. COMPOSITIONS/INFORMATION ON INGREDIENTS

Description : Highly refined mineral oil (IP 346 DMSO extract <3%). Proprietary performance additives. This product does not contain any hazardous ingredients at or above regulated thresholds.

COMPONENT	CAS NO.	WEIGHT PERCENT RANGE
Petroleum, Solvent-refined heavy paraffinic	64741-88-4	70 – 80
Polybutene; 1-Propene, 2-methyl-, homopolymer	9003-27-4	5 – 10
Lithium 12 Hydroxystearate Thickener	7620-77-1	5 – 15
Additive Packages	Proprietary	2 – 5
Molybdenum Disulfide	1317-33-5	3

4. FIRST AID MEASURES

EYE CONTACT: Check for and remove any contact lenses. Rinse immediately with water for at least 15 minutes or until irritation subsides. In case of eye irritation or material is hot, treat burns and get medical attention.

SKIN CONTACT: Wash contaminated area with plenty of soap and water. Do not use organic solvents. If redness or irritation occurs, seek medical attention. 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 or handled, removed victim from exposure.

INGESTION: Do not induce vomiting. Immediately give two glasses of water, a little at a time. Never give anything by mouth to an unconscious person. Call a physician.

5. FIRE-FIGHTING MEASURES

FLASH POINT (ASTM D-92): > 250 °C (Base Oil) Classified as Class IIIB by NFPA

EXTINGUISHING MEDIA: Water spray; carbon dioxide; alcohol resistant foam; dry powder.

SPECIAL FIRE FIGHTING PROCEDURES:
Water may be ineffective but can be used to cool containers exposed to heat or flame. 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 EXPLOSIVE CONDITION:
Dense smoke may be generated while burning, carbon monoxide, carbon dioxide and other oxide may be generated as products of combustion.

PROTECTIVE EQUIPMENT FOR FIRE MEN:

Use full protective clothing for chemicals and a self-contained breathing apparatus.

OTHER:

No information available

6. ACCIDENTAL RELEASE MEASURES

PERSON-RELATED SAFETY PRECAUTIONS:

Wear protective equipment. Keep unprotected persons away.

ENVIRONMENTAL PROTECTION :

Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewage/surface or ground water.

MEASURES FOR CLEANING/COLLECTING:

All disposals must comply with federal, states, and local regulations. The material, if spilled or discarded, may be a regulated waste. Refer to states 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 material may be landfilled or incinerated at an approved facility. Materials should be recycled if possible.

7. HANDLING AND STORAGE

HANDLING PROCEDURES :

Open container in a well ventilated area. Avoid breathing vapors. Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Launder contaminated clothing before reuse. Empty container contains product residue which may exhibit hazards of product.

RECOMMENED HANDLING TEMPERATURE :

< 45 °C

STORAGE PROCEDURES :

Take precautions to avoid release to the environment. Keep container dry. Store in closed containers away form heat, sparks, open flame, or oxidizing materials. Do not transfer to unmarked containers. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Do not eat, drink or smoke at the workplace

RECOMMENED STORAGE TEMPERATURE :

< 45 °C

RECOMMENEDATION :

Storage should not be stored over 3 years.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS VALUE :

No information available

PERSONAL PROTECTIVE EQUIPMENT:

- GENERAL PROTECTIVE AND HYGINIC MEASURES:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hand before breaks and at the end of work.
Avoid contact with the eyes and skin.

- 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 a dust and mist filter. All respirators must be NIOSH certified. Do not use compressed oxygen in hydrocarbon atmospheres.

- EYE PROTECTION:

Eye protection is not required under conditions of normal use. If material is handled such that it could be splashed in to eyes, wear plastic face shield or splash-proof safety goggles.

- SKIN PROTECTION:

No skin protection is not 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.

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.

VIRONMENTAL EXPOSURE CONTROLS:
No special controls are needed

9. PHYSICAL AND CHEMICAL PROPERTIES

COLOUR:	Gray Black
ODOUR:	Mild
pH:	NA
DROPPING POINT °C :	228
FLAMMABILITY:	NE
AUTO FLAMMABILITY:	NE
EXPLOSIVE PROPERTIES:	NA
OXIDIZING PROPERTIES:	NA
VAPOR PRESSURE, mm Hg 20°C:	NE
VAPOUR DENSITY:	NA
EVAPORATION RATE:	NE

NA = Not Applicable, NE = Not Established

For future technical information, Contact your marketing representative.

10. STABILITY AND REACTIVITY

STABILITY:	The product is stable.
THERMAL DECOMPOSITION:	> 350°C
DANGEROUS REACTIONS:	No dangerous reactions known
CONDITIONS TO AVOID:	Static discharges.
MATERIALS TO AVOID:	Strong acids, strong bases and strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS:
Normally stable
Thermal decomposition or burning may release oxides of carbon and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Eye :	Cause serious eye irritation.
Skin :	No significant health hazards identified.
Inhalation :	No significant health hazards identified.
Ingestion :	No significant health hazards identified.
Mutagenic effects :	No known significant effects or critical hazards.
Carcinogenicity :	No component of this product at level greater than or equal to 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC), the European Commission (EC), or the National Occupational Health and Safety Commission.

12. ECOLOGICAL INFORMATION

Ecotoxicity :	No testing has been performed by the manufacturer.
Persistence and degradability :	No testing has been performed by the manufacturer.
Mobility :	No testing has been performed by the manufacturer.
Bioaccumulative potential :	This product is not expected to bioaccumulate through food chains in the environment.
Other ecological information :	This product is unlikely to disperse in water

13. DISPOSAL INFORMATION

REGULATORY INFORMATION : Dispose of residual products and empty containers responsibility. Caution! If regulated solvents 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 spill. Refer to state and local regulations.

WASTE DISPOSAL METHOD : Waste material may be land filled or incinerated at an approved facility. Materials should be recycled if possible.

14. TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

Shipping Name :	Not Regulated
Hazard Class :	None
UN/NA # :	None
Packing Group :	Not classified as dangerous for transport.
Required Label (s) :	None
Addition Info. :	None

INTERNATIONAL TRANSPORTATION REGULATIONS : Not regulated as dangerous goods.

15. REGULATORY INFORMATION

INTERNATIONAL INVENTORY STATUS

US FEDERAL REGULATION

TSCA Chemical Inventory : All components of this material are on the US TSCA Inventory
SARA : None of this products components are listed under Section 302 or Section 313

CANADA REGULATION

DSL Chemical Inventory : All components of this material are on the DSL Inventory

AUSTRALIA REGULATION

AICS Chemical Inventory : All components of this material are on the AICS Inventory

PHILIPPINES REGULATION

PICCS Chemical Inventory : All components of this material are on the PICCS Inventory

KOREA REGULATION

ECL Chemical Inventory : All components of this material are on the ECL Inventory

JAPAN REGULATION

METI/ENCS Chemical Inventory: All components of this material are on the METI/ENCS Inventory

CHINA REGULATION

IECS Chemical Inventory : All components of this material are on the IECS Inventory

THAILAND REGULATION :

All components of this material are not subjected to Hazardous Substance **Act B.E. 2535**

16. OTHER INFORMATION

HEALTH AND ENVIRONMENTAL LABEL LANGUAGE

CAUTION : Contains Petroleum oil (Grease). Repeated skin contact may cause skin disorders.

ATTENTION: Repeated exposure to oil mist in excess of OSHA limit (5 mg/m³) can result in accumulation of oil droplets in pulmonary tissue.

PRECAUTIONARY MEASURES : Avoid excessive & prolonged skin contact. Wash thoroughly after handling Avoid generation and inhalation of oil mists.

INSTRUCTION IN CASE OF FIRE OR SPILL :

In case of fire, use water spray, foam, dry chemical or carbon dioxide. Water spray may be ineffective, but can be to cool containers. In case of spill, do not use water, soak up with absorbent material.

DISCLAIMER OF WARRANTY:

The information contained herein is based upon data and information available to us, and reflects our best professional judgement. This product may be formulated in part with components purchased from other companies. In many instances, especially when proprietary or trade secret materials are used, Thai Petroleum & Trading Company must rely upon the hazard evaluation of such components submitted by that product's manufacturer or importer. No warranty of merchantability, fitness for any use, or any other warranty is expressed or implied regarding the accuracy of such data or information. The results to be obtained from the use thereof, or that any such use does not infringe any patent. Since the information contained herein may be applied under conditions of use beyond our control and with which we may be unfamiliar, we do not assume responsibility for the results of such application. This information is furnished upon the condition that the person receiving it shall make his own determination of the suitability of the material for his particular use.