

FEB 20 1996



Date Issued: 01-31-96
Supersedes: 12-08-95

TEXACO
MATERIAL SAFETY DATA SHEET

NOTE: Read and understand Material Safety Data Sheet before handling or disposing of product.

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MATERIAL IDENTITY

Product Code and Name:
01938 STARPLEX MOLY 2
Chemical Name and/or Family or Description:
Industrial Grease

MAR 13 1996

Manufacturer's Name and Address:
TEXACO LUBRICANTS COMPANY
A DIVISION OF TEXACO REFINING AND MARKETING INC.
P.O. Box 4427
Houston, TX 77210-4427

Telephone Numbers:
Transportation Emergency-Company : (914) 831-3400
CHEMTREC : (800) 424-9300
Health Emergency -Company : (914) 831-3400
General MSDS Assistance : (914) 838-7204
Technical Information -Fuels : (914) 838-7336
-Chemical : (512) 459-6543
-Lubricant/ : (800) 782-7852
Antifreezes
-Additives : (713) 235-6278
-Solvents : (800) 876-3738

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1 % OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0 % OR GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3.0 % OR GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE. REFER TO SECTION 14 FOR APPLICABLE STATES' RIGHT TO KNOW AND OTHER REGULATORY INFORMATION.

Product and/or Component(s) Carcinogenic According to:
OSHA IARC NTP OTHER NONE
- - - - X

Seq.	Chemical Name	CAS Number	Range in %
01 #	Severely solvent refined, solvent-dewaxed heavy paraffinic petroleum distillates	64742-65-0	65.00-79.99
02	Lithium 12-hydroxystearate	7620-77-1	3.00-9.99
03 *	Zinc dialkyldithiophosphate	113894-90-9	1.00-2.99
04 *	Lithium azelate	38900-29-7	1.00-2.99
05 *	Molybdenum disulfide	1317-33-5	1.00-2.99
06 *	Modified ethylene/propylene copolymer	9010-79-1	1.00-2.99

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).
* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.
COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST.

Exposure Limits referenced by Sequence Number in the Composition Section

Seq.	Limit
01	5 mg/m3 TWA-OSHA (MINERAL OIL MIST)
01	5 mg/m3 TWA-ACGIH (MINERAL OIL MIST)
01	10 mg/m3 STEL ACGIH (MINERAL OIL MIST)
05	10 mg/m3 TWA-OSHA (TOTAL DUST)
05	10 mg/m3 TWA-ACGIH (TOTAL DUST)

0001 0 834



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3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance:
Grey buttery substance
Odor:
Additive odor

WARNING STATEMENT

CAUTION ! HEATED PRODUCT MAY CAUSE DIZZINESS AND DROWSINESS
CAN CAUSE KIDNEY DAMAGE IF SWALLOWED

HMIS		NFPA	
Health: 0	Reactivity: 0	Health: 0	Reactivity: 0
Flammability: 1	Special : -	Flammability: 1	Special : -

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	-	-

EFFECTS OF OVEREXPOSURE

Acute:
Eyes:
May cause minimal irritation, experienced as temporary discomfort.

Skin:
Brief contact is not irritating. Prolonged contact, as with clothing wetted with material, may cause defatting of skin or irritation, seen as local redness with possible mild discomfort.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below, and Section 11 for information regarding potential long term effects.

Inhalation:
Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause irritation of the nose and throat, headache, nausea, and drowsiness.

Ingestion:
If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur.

Sensitization Properties:
Unknown.

Chronic:
Repeated ingestion may cause kidney damage.

Medical Conditions Aggravated by Exposure:
Because of its defatting properties, prolonged and repeated skin contact may aggravate an existing dermatitis (skin condition).

Repeated overexposure may aggravate existing kidney disease.

Other Remarks:
Material from high pressure equipment, pinhole leaks, or high pressure line failure can penetrate the skin and, if not properly treated, can cause severe injury, including disfigurement, loss of function, or even require amputation of the affected area. To prevent such serious injury, immediate medical attention should be sought even if the injection injury appears to be minor.

When overheated, product may release hydrogen sulfide (H2S) gas. H2S concentrations above permissible concentrations can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomiting, diarrhea and pulmonary edema. At concentrations above 300 ppm, respiratory paralysis, causing unconsciousness and death, can occur.



4. FIRST AID MEASURES

Eyes:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Skin:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Other Instructions:

High pressure injection of material can cause severe injury. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or may require amputation of the affected area.

Remove and dry-clean or launder clothing soaked or soiled with this material before reuse. Dry cleaning of contaminated clothing may be more effective than normal laundering. Inform individuals responsible for cleaning of potential hazards associated with handling contaminated clothing.

5. FIRE-FIGHTING MEASURES

Ignition Temperature - AIT (degrees F):

Not determined.

Flash Point (degrees F):

Not determined.

Flammable Limits (%):

Lower: Not determined.

Upper: Not determined.

Recommended Fire Extinguishing Agents And Special Procedures:

Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

Unusual or Explosive Hazards:

Hydrogen sulfide (H₂S) may be released if overheated.

Extinguishing Media Which Must Not Be Used:

Not determined.

Special Protective Equipment for Firefighters:

No special equipment or procedures required.

6. ACCIDENTAL RELEASE MEASURES (Transportation Spills: CHEMTREC (800)424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:

Contain spill if possible, contain with absorbent materials such as clay or soil, and shovel up. Avoid skin and eye contact.

7. HANDLING AND STORAGE

Precautions to be Taken in

Handling:

Minimum feasible handling temperatures should be maintained.

Storage:

Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)

Eye/Face Protection:

Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

Skin Protection:

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Ventilation:

Adequate to meet component occupational exposure limits (see Section 2).

Exposure Limit for Total Product:

None established for product; refer to Section 2 for component exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Grey buttery substance

Odor:

Additive odor

Boiling Point (degrees F):

Not determined.

Melting/Freezing point (degrees F):

Not applicable.

Specific Gravity (water=1):

Not determined.

pH of undiluted product:

Not applicable.

Vapor Pressure:

< .1 mmHg

Viscosity:

Not determined.

VOC Content:

Not determined.

Vapor Density (air=1):

Not determined.

Solubility in Water (%):

< .1

Other: None

10. STABILITY AND REACTIVITY

This Material Reacts Violently With:

(If Others is checked below, see comments for details)

Air Water Heat Strong Oxidizers Others None of These

— — — X — —

Comments:

Under extreme temperatures or extended storage periods, hydrogen sulfide (H₂S) gas may accumulate in the head-space of container.



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10. STABILITY AND REACTIVITY (CONT)

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones, and combustion products or compounds of lithium, molybdenum, phosphorus, sulfur (may include hydrogen sulfide), zinc.

Hazardous Polymerizations: DO NOT OCCUR

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose

Oral:

LD50 Believed to be > 5.00 g/kg (rat) practically non-toxic

Inhalation:

Not determined.

Dermal:

LD50 Believed to be > 2.00 g/kg (rabbit) practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin:

(Draize) Believed to be < .50 / 8.0 (rabbit) no appreciable effect

Eyes:

(Draize) Believed to be < 15.00 / 110 (rabbit) no appreciable effect

Sensitization:

Not determined.

Other:

None

12. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Remarks

None

13. TRANSPORT INFORMATION

Transportation

DOT:

Proper Shipping Name:

Not regulated

IMDG:

Proper Shipping Name:

Not evaluated

ICAO:

Proper Shipping Name:

Not evaluated

TDG:

Proper Shipping Name:

Not evaluated

14. REGULATORY INFORMATION

Federal Regulations:

SARA Title III:

Section 302/304 Extremely Hazardous Substances

Seq. Chemical Name _____ CAS Number _____ Range in %

None

Section 302/304 Extremely Hazardous Substances (CONT)

Seq. TPQ _____ RQ _____

None

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N.D. - NOT DETERMINED
< - LESS THAN

N.A. - NOT APPLICABLE
> - GREATER THAN

N.T. - NOT TESTED



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14. REGULATORY INFORMATION (CONT)

Section 311 Hazardous Categorization:

Acute Chronic Fire Pressure Reactive N/A
- X - - - -

Section 313 Toxic Chemical

Chemical Name CAS Number Concentration
Zinc dialkyldithiophosphate 113894-90-9 1.00-2.99

CERCLA 102(a)/DOT Hazardous Substances: (+ indicates DOT Hazardous Substance)

Seq. Chemical Name CAS Number Range in %
None

CERCLA/DOT Hazardous Substances (Sequence Numbers and RQ's):

Seq. RQ
None

TSCA Inventory Status:

This product, or its components, are listed on or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Other:

None.

State Regulations:

California Proposition 65:

The following detectable components of this product are substances, or belong to classes of substances, known to the State of California to cause cancer and/or reproductive toxicity.

Chemical Name CAS Number
None

States Right-to-know Regulations:

Chemical Name State Right-to-know
Lithium 12-hydroxystearate MI
Zinc dialkyldithiophosphate CT,IL,LA,NJ,MI
Molybdenum disulfide MA,NJ

State list: CT (Connecticut), FL (Florida), IL (Illinois), MI (Michigan),
LA (Louisiana), MA (Massachusetts), NJ (New Jersey),
PA (Pennsylvania), RI (Rhode Island)

International Regulations:

WHMIS Classification:

Not determined

Canada Inventory Status:

Not determined.

EINECS Inventory Status:

Not determined.

Australia Inventory Status:

Not determined.

Japan Inventory Status:

Not determined.

15. ENVIRONMENTAL INFORMATION

Aquatic Toxicity:

Not determined.

Mobility:

Not determined.

Persistence and Biodegradability:

Not determined.

Potential to Bioaccumulate:

Not evaluated.



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15. ENVIRONMENTAL INFORMATION (CONT)

Remarks:
Not evaluated.

16. OTHER INFORMATION

None

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT FOR PURPOSE OF HAZARD COMMUNICATION AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, USER SHOULD CONSULT HIS LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. TEXACO DOES NOT UNDERTAKE TO FURNISH ADVICE ON SUCH MATTERS.

Since the last mailing for this customer code, the following sections have been revised:
2, 16, 17.

Date: 01-31-96 New Revised, Supersedes: 12-08-95
Date printed: 02-07-96

Inquiries regarding MSDS should be directed to:
Texaco Inc.
Manager, Product Safety
P.O. Box 509
Beacon, N.Y. 12508

PLEASE SEE NEXT PAGE FOR PRODUCT LABEL



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17. PRODUCT LABEL

Label Date: 01-31-96

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

01938 STARPLEX MOLY 2

WARNING STATEMENT

CAUTION ! HEATED PRODUCT MAY CAUSE DIZZINESS AND DROWSINESS
 CAN CAUSE KIDNEY DAMAGE IF SWALLOWED

PRECAUTIONARY MEASURES

- Avoid breathing vapor, mist, or gas.
- Use with adequate ventilation.
- Avoid contact with eyes, skin, and clothing.
- Keep container closed.
- Wash thoroughly after handling.

FIRST AID

Eye Contact:
 Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Skin Contact:
 Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:
 If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:
 If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Note to Physician:
 High pressure injection of material can cause severe injury. Failure to debride the wound of all residual material can result in disfigurement, loss of function, or may require amputation of the affected area.

FIRE

In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may cause frothing. Use water spray to cool fire-exposed containers.

	<u>Chemical Name</u>	<u>CAS Number</u>	<u>Range in %</u>
#	Severely solvent refined, solvent-dewaxed heavy paraffinic petroleum distillates	64742-65-0	65.00-79.99
	Lithium 12-hydroxystearate	7620-77-1	3.00-9.99
*	Zinc dialkyldithiophosphate	113894-90-9	1.00-2.99
*	Lithium azelate	38900-29-7	1.00-2.99
*	Molybdenum disulfide	1317-33-5	1.00-2.99
*	Modified ethylene/propylene copolymer	9010-79-1	1.00-2.99

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).
 * COMPONENT IS HAZARDOUS ACCORDING TO OSHA.
 # COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST.

<u>Pennsylvania Special Hazardous Substance(s)</u>	<u>CAS Number</u>	<u>Range in %</u>
None		

HMIS		NFPA	
Health: 0	Reactivity: 0	Health: 0	Reactivity: 0
Flammability: 1	Special: -	Flammability: 1	Special: -

Transportation
 DOT:
 Proper Shipping Name:
 Not regulated

N.D. - NOT DETERMINED N.A. - NOT APPLICABLE N.T. - NOT TESTED
 < - LESS THAN > - GREATER THAN

