



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:

00600 TRANSFORMER OIL

Chemical Name and/or Family or Description:

Transformer Oils

Manufacturer's Name and Address:

TEXACO LUBRICANTS COMPANY
P.O. Box 4427
Houston, TX 77210-4427

Telephone Numbers:

Transportation Emergency-Company : (914) 831-3400
CHEMTREC (USA): (800) 424-9300
In Canada : (800) 567-7455
-Company : (914) 831-3400
Health Emergency : (914) 838-7204
General MSDS Assistance : (914) 838-7204
Texaco FaxBack System : (713) 432-3383
Technical Information -Fuels : (914) 838-7336
-Lubricant/: (800) 782-7852(Option 4)
Antifreezes/Fuel Additives
-Solvents/Chemicals : (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

Composition: (Sequence Number and Chemical Name)

Seq.	Chemical Name	CAS Number	Range in %
01	# Hydrotreated light naphthenic petroleum distillates	64742-53-6	95.00-99.99

PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910.1200), BUT IS CONSIDERED HAZARDOUS ACCORDING TO TEXACO'S INTERNAL CRITERIA.

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)

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance:
Bright and clear liquid
Odor:
Oil-type odor

WARNING STATEMENT

CAUTION ! ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE

PAGE: 1

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



PRODUCT CODE: 00600
NAME: TRANSFORMER OIL

Date Issued: 1996-12-19
Supersedes: 1995-12-08

3. HAZARD IDENTIFICATION (CONT)

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

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	<u>X</u>	<u>X</u>	<u>X</u>	-

EFFECTS OF OVEREXPOSURE

Acute:

Eyes:

May cause minimal irritation, experienced as temporary discomfort.

Skin:

Brief contact may cause slight irritation. Prolonged contact, as with clothing wetted with material, may cause more severe irritation and discomfort, seen as local redness and swelling.

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. Aspiration may occur during swallowing or vomiting resulting in lung damage.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects have been documented in humans as a result of chronic exposure. Section 11 may contain applicable animal data.

Medical Conditions Aggravated by Exposure:

Because of its defatting properties, prolonged and repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

None

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 person is conscious and can swallow, give two glasses of water (16 oz.) but do not induce vomiting. If vomiting occurs, give fluids again. Have medical personnel determine if evacuation of stomach or induction of vomiting is necessary. Do not give anything by mouth to an unconscious or convulsing person.

Inhalation:

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



4. FIRST AID MEASURES (CONT)

Other Instructions:

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Center for additional treatment information.

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):

295 (COC)

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:

None

Special Protective Equipment for Firefighters:

Wear full protective clothing and positive pressure breathing apparatus.

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

Procedures in Case of Accidental Release, Breakage or Leakage:

Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

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.



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8. EXPOSURE CONTROLS/PERSONAL PROTECTION (CONT)

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:

Bright and clear liquid

Odor:

Oil-type odor

Boiling Point (degrees F):

Not determined.

Melting/Freezing point (degrees F):

Not applicable.

Specific Gravity (water=1):

.889

pH of undiluted product:

Not applicable.

Vapor Pressure:

Not determined.

Viscosity:

12 cSt at 40.0 C

VOC Content:

Not determined.

Vapor Density (air=1):

Not determined.

Solubility in Water (%):

Not determined.

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

Comments:

None

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones.

Hazardous Polymerizations: DO NOT OCCUR

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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 > 10.00 g/kg (rabbit) practically non-toxic

Irritation Index, Estimation of Irritation (Species)

Skin:

(Draize) Believed to be > 1.50 - 3.00 / 8.0 (rabbit) slightly irritating

Eyes:

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

Sensitization:

Not determined.

Other:

Some low viscosity naphthenic oils have caused skin irritation and skin tumors in laboratory animals when repeatedly applied and left in place between applications. The significance of this effect to humans has not been established.

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	

Section 311 Hazardous Categorization:

Acute	Chronic	Fire	Pressure	Reactive	N/A
					X

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14. REGULATORY INFORMATION (CONT)

Section 313 Toxic Chemical

Chemical Name	CAS Number	Concentration
None		

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	

International Regulations:

WHMIS Classification:

Not regulated

Canada Inventory Status:

This product, or its components, are listed on or are exempt from the Canadian Domestic Substance List (DSL).

EINECS Inventory Status:

This product, or its components, are listed on or are exempt from the European Inventory of Existing Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS).

Australia Inventory Status:

This product, or its components, are listed on or are exempt from the Australian Inventory of Chemical Substances (AICS).

Japan Inventory Status:

This product, or its components, are listed on or are exempt from the Japanese Ministry of International Trade and Industry (MITI) inventory.

15. ENVIRONMENTAL INFORMATION

Aquatic Toxicity:

Not determined.

Mobility:

Not determined.

Persistence and Biodegradability:

Not determined.

Potential to Bioaccumulate:

Not evaluated.

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

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16. OTHER INFORMATION (CONT)

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.

Date: 1996-12-19 New Revised, Supersedes: 1995-12-08
Date printed: 1998-08-18

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: 1995-12-08

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.

00600 TRANSFORMER OIL

WARNING STATEMENT

CAUTION ! ASPIRATION HAZARD IF SWALLOWED
CAN ENTER LUNGS AND CAUSE DAMAGE

PRECAUTIONARY MEASURES

- Avoid prolonged breathing of vapor, mist, or gas.
- Workers should wash exposed skin several times daily with soap and water.

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 person is conscious and can swallow, give two glasses of water (16 oz.) but do not induce vomiting. If vomiting occurs, give fluids again. Have medical personnel determine if evacuation of stomach or induction of vomiting is necessary. Do not give anything by mouth to an unconscious or convulsing person.

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:

Aspiration of this product during induced emesis may result in severe lung injury. If evacuation of stomach is necessary, use method least likely to cause aspiration, such as gastric lavage after endotracheal intubation. Contact a Poison Center for additional treatment information.

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.

Chemical Name	CAS Number	Range in %
# Hydrotreated light naphthenic petroleum distillates	64742-53-6	95.00-99.99

PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910.1200), BUT IS CONSIDERED HAZARDOUS ACCORDING TO TEXACO'S INTERNAL CRITERIA.

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

Pennsylvania Special Hazardous Substance(s)	CAS Number	Range in %
None		

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

Transportation

DOT:

Proper Shipping Name:
Not regulated

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17. PRODUCT LABEL (CONT)

Label Date: 1995-12-08

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

Manufacturer's Name and Address:
TEXACO LUBRICANTS COMPANY
P.O. Box 4427
Houston, TX 77210-4427

TRANSPORTATION EMERGENCY Company: (914) 831-3400
CHEMTREC: (800) 424-9300

HEALTH EMERGENCY Company: (914) 831-3400