

DEX COOL



Date Issued: 1996-12-19
Supersedes: 1996-10-31
845/20

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:

07994 HAVOLINE DEX-COOL EXTENDED LIFE ANTIFREEZE/COOLANT

Chemical Name and/or Family or Description:

Antifreeze

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 (USA): (800) 424-9300
In Canada : (800) 567-7455
Health Emergency -Company : (914) 831-3400
General MSDS Assistance : (914) 838-7204
Texaco FaxBack System : (713) 432-3383
Technical Information -Fuels : (914) 838-7336
-Chemical : (512) 459-6543
-Lubricant/: (800) 782-7852 (Option 4)
-Antifreezes/Fuel Additives
-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

Composition: (Sequence Number and Chemical Name)

Seq.	Chemical Name	CAS Number	Range in %
01 *	1,2 ethanediol	107-21-1	80.00-94.99
02 *	Hexanoic acid, 2-ethyl-, potassium salt	3164-85-0	3.00-9.99

PRODUCT IS HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

Exposure Limits referenced by Sequence Number in the Composition Section

Seq.	Limit
01	50 ppm CEILING-OSHA
01	39.4 ppm CEILING-ACGIH (AEROSOL) (A4)

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance:

Orange liquid

Odor:

Mild odor

PAGE: 1

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3. HAZARD IDENTIFICATION (CONT)

WARNING STATEMENT

WARNING ! HARMFUL IF SWALLOWED
 MAY CAUSE DIZZINESS AND DROWSINESS
 MAY CAUSE EYE IRRITATION
 ASPIRATION HAZARD IF SWALLOWED -
 CAN ENTER LUNGS AND CAUSE DAMAGE
 FOR INDUSTRIAL USE ONLY
 CAN CAUSE KIDNEY DAMAGE IF SWALLOWED
 MAY CAUSE LIVER DAMAGE IF SWALLOWED BASED ON ANIMAL DATA

ATTENTION ! CONTAINS ETHYLENE GLYCOL WHICH MAY CAUSE BIRTH DEFECTS BASED
 ON ANIMAL DATA
 CONTAINS 2-ETHYLHEXANOIC ACID OR ITS SALT WHICH MAY CAUSE
 ADVERSE REPRODUCTIVE EFFECTS AND BIRTH DEFECTS BASED ON
 ANIMAL DATA

	HMIS		NFPA	
Health:	2	Reactivity: 0	Health:	2
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 irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

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.

Prolonged or repeated overexposure may result in the absorption of potentially harmful amounts of material.

Ingestion:

Contains ethylene glycol and/or diethylene glycol, which are toxic when swallowed. A lethal dose for an adult is 1-2 ml per kilogram, or about 4 ounces (one-half cup). Symptoms include headache, weakness, confusion, dizziness, staggering, slurred speech, loss of coordination, faintness, nausea and vomiting, increased heart rate, decreased blood pressure, difficulty breathing and seeing, pulmonary edema, unconsciousness, convulsions, collapse, and coma. Symptoms may be delayed. Decreased urine output and kidney failure may also occur. Severe poisoning may cause death.

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

Sensitization Properties:

Unknown.

Chronic:

Repeated ingestion may cause kidney damage.



3. HAZARD IDENTIFICATION (CONT)

Medical Conditions Aggravated by Exposure:

Repeated overexposure may aggravate existing kidney disease.

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

Other Remarks:

None

4. FIRST AID MEASURES

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. Get medical attention.

Skin:

Wash skin with plenty of soap and water until all traces of material are removed. Remove and clean contaminated clothing (See Other Instructions). Destroy non-resistant footwear. Get medical attention if skin irritation persists or contact has been prolonged.

Ingestion:

If person is conscious and can swallow, immediately give two glasses (i.e., 16 oz.) of water. Induce vomiting as directed by medical personnel. Get immediate medical attention. Never 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.

Other Instructions:

Ethylene glycol (EG) and diethylene glycol (DEG) intoxication may initially produce behavioral changes, drowsiness, vomiting, diarrhea, thirst, and convulsions. EG and DEG are nephrotoxic. End stages of poisoning may include renal damage or failure with acidosis. Supportive measures, supplemented with hemodialysis if indicated, may limit the progression and severity of toxic effects.

FOR ETHYLENE GLYCOL POISONING intravenous ethanol is a recognized antidotal treatment; other antidotal treatments also exist for EG poisoning.

FOR DIETHYLENE GLYCOL POISONING the role of intravenous ethanol in the treatment is unclear but it may be of benefit in view of structural and toxicological similarities to ethylene glycol. Contact a Poison Center for further treatment information.

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.

5. FIRE-FIGHTING MEASURES

Ignition Temperature - AIT (degrees F):

Not determined.

Flash Point (degrees F):

260 (PMCC)

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

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5. FIRE-FIGHTING MEASURES (CONT)

Extinguishing Media Which Must Not Be Used:

Not determined.

Special Protective Equipment for Firefighters:

Wear full protective clothing and positive pressure breathing apparatus.

Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

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.

If more than 5,398 pounds of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

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:

Protective clothing such as coveralls or lab coats should be worn. Launder or dry-clean when soiled. Gloves and boots resistant to chemicals and petroleum distillates required.

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:

Orange liquid

Odor:

Mild odor

Boiling Point (degrees F):

228

Melting/Freezing point (degrees F):

Not applicable.

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9. PHYSICAL AND CHEMICAL PROPERTIES (CONT)

Specific Gravity (water=1):
1.13

pH of undiluted product:
8.3

Vapor Pressure:
Not determined.

Viscosity:
8 cSt at 40.0 C

VOC Content:
Not determined.

Vapor Density (air=1):
2.1

Solubility in Water (%):
> 10

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:
None

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 potassium.

Hazardous Polymerizations: DO NOT OCCUR

11. TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)

Median Lethal Dose

Oral:

Animal data does not reflect human toxicity; see Sections 3 & 11

Inhalation:

Not determined.

Dermal:

LD50 Believed to be > 1.00 - 2.00 g/kg (rabbit) slightly toxic

Irritation Index, Estimation of Irritation (Species)

Skin:

(Draize) Believed to be .50 - 3.00 /8.0 (rabbit) slightly irritating

Eyes:

(Draize) Believed to be 15.00 - 25.00 /110 (rabbit) slightly irritating

Sensitization:

Not determined.

Other:

Oral administration of ethylene glycol to pregnant experimental animals has been shown to cause birth defects in the offspring. These effects were not seen when ethylene glycol was administered by dermal application or by inhalation.

Continuous ingestion of a diet containing 1% or 2% ethylene glycol for two years produced liver and kidney damage, and bladder stones in rats.

2-ethylhexanoic acid (2-EXA) caused an increase in liver size and enzyme levels when repeatedly administered to rats via the diet. When administered to pregnant rats by gavage or in drinking water, 2-EXA caused teratogenicity (birth defects) and delayed postnatal development of the pups. Additionally, 2-EXA impaired female fertility in rats. Birth defects were seen in the offspring of mice who were administered sodium 2-ethylhexanoate via intraperitoneal injection during pregnancy.

PAGE: 5

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