# **Material Safety Data Sheet**

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

## Cat® ELC™ (Extended Life Coolant) Premix 50/50

Product Use: Antifreeze/Coolant

Product Number(s): 16334, CPS216334, CPS226334

Company Identification

ChevronTexaco Global Lubricants 6001 Bollinger Canyon Road San Ramon, CA 94583 United States of America

Transportation Emergency Response

CHEMTREC. (800) 424-9300 or (703) 527-3887

**Health Emergency** 

ChevronTexaco Emergency Information Center: Located in the USA. International collect calls accepted.

(800) 231-0623 or (510) 231-0623

Product Information

email: lubemsds@chevron.com Product Information: 800-LUBE-TEK

## SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT 50 - 65 %weight	
Water	7732-18-5		
Ethylene Glycol	107-21-1	35 - 50 %weight	
Potassium 2-ethylhexanoate	3164-85-0	1 - 5 %weight	
Diethylene glycol	111-46-6	1 - 5 %weight	

## SECTION 3 HAZARDS IDENTIFICATION

## **EMERGENCY OVERVIEW**

- MAY BE HARMFUL OR FATAL IF SWALLOWED
- HARMFUL OR FATAL IF SWALLOWED
- CAUSES EYE IRRITATION
- CONTAINS MATERIAL THAT MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS BASED ON ANIMAL DATA
- POSSIBLE BIRTH DEFECT HAZARD CONTAINS MATERIAL THAT MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA

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- MAY CAUSE DAMAGE TO:
- KIDNEY

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## **IMMEDIATE HEALTH EFFECTS**

Eye: Contact with the eyes causes irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision.

Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin.

Ingestion: Toxic; may be harmful or fatal if swallowed.

Inhalation: The vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

#### **DELAYED OR OTHER HEALTH EFFECTS:**

Reproduction and Birth Defects: Contains material that may cause adverse reproductive effects based on animal data. Contains material that may be harmful to the developing fetus based on animal data.

Target Organs: Contains material that may cause damage to the following organ(s) following repeated ingestion based on animal data: Kidney

See Section 11 for additional information. Risk depends on duration and level of exposure.

## SECTION 4 FIRST AID MEASURES

Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get medical attention if irritation persists.

Skin: To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

## SECTION 5 FIRE FIGHTING MEASURES

## FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS:

Health: 2

Flammability: 0

Reactivity: 0

#### FLAMMABLE PROPERTIES:

Flashpoint: NA Autoignition: NDA

Flammability (Explosive) Limits (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA: Dry Chemical, CO2, AFFF Foam or alcohol resistant foam.

## PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne

solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic

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Cat® ELC™ (Extended Life Coolant) Premix 50/50 MSDS: 10577 compounds will be evolved when this material undergoes combustion. Combustion may form oxides of: Potassium.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

## SECTION 7 HANDLING AND STORAGE

**Precautionary Measures:** Do not get in eyes. Do not taste or swallow. Wash thoroughly after handling. Do not breathe vapor or fumes.

General Handling Information: Do not taste or swallow antifreeze or solution. Keep out of the reach of children and animals.

General Storage Information: Do not store in open or unlabeled containers.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, 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 and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

## **GENERAL CONSIDERATIONS:**

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

#### **ENGINEERING CONTROLS:**

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

#### PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

**Skin Protection:** No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Natural rubber, Neoprene, Nitrile Rubber, Polyvinyl Chloride (PVC or Vinyl).

Respiratory Protection: Determine if airborne concentrations are below the recommended exposure limits. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material, such as: Air-Purifying Respirator for Organic Vapors, Dusts and Mists. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not

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provide adequate protection.

#### Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling	Notation
Ethylene Glycol	ACGIH_TLV	1		100 mg/m3	
Ethylene Glycol	OSHA_PEL			125 mg/m3	
Ethylene Glycol	ACGIH	† · · · ·		39.4 ppm	<del></del>
				(weight)	1

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Red

Physical State: Liquid

Odor: NDA pH: 8.1 - 8.9

Vapor Pressure: NDA Vapor Density (Air = 1): 2.1 **Boiling Point:** 228 °F (109 C)

Solubility: Miscible

Freezing Point: -34 °F (-37 C)

Melting Point: NDA

Specific Gravity: 1 - 1.5 @ 15.6 °C / 15.6 °C

Viscosity: <20 cSt @ 40 °C

## SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials: May react with strong oxidizing agents, such as chlorates,

nitrates, peroxides, etc.

Hazardous Decomposition Products: Aldehydes (Elevated temperatures)

Hazardous Polymerization: Hazardous polymerization will not occur.

## SECTION 11 TOXICOLOGICAL INFORMATION

## **IMMEDIATE HEALTH EFFECTS**

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.

Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.

Skin Sensitization: No product toxicology data available.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

## **ADDITIONAL TOXICOLOGY INFORMATION:**

This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult

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human. Ethylene glycol is oxidized to oxalic acid which results in the deposition of calcium oxalate crystals mainly in the brain and kidneys. Early signs and symptoms of EG poisoning may resemble those of alcohol intoxication. Later, the victim may experience nausea, vomiting, weakness, abdominal and muscle pain, difficulty in breathing and decreased urine output. When EG was heated above the boiling point of water, vapors formed which reportedly caused unconsciousness, increased lymphocyte count, and a rapid, jerky movement of the eyes in persons chronically exposed. When EG was administered orally to pregnant rats and mice, there was an increase in fetal deaths and birth defects. Some of these effects occurred at doses that had no toxic effects on the mothers. We are not aware of any reports that EG causes reproductive toxicity in human beings.

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.

This product contains diethylene glycol (DEG). The estimated oral lethal dose is about 50 cc (1.6 oz) for an adult human. DEG has caused the following effects in laboratory animals: liver abnormalities, kidney damage and blood abnormalities. It has been suggested as a cause of the following effects in humans: liver abnormalities, kidney damage, lung damage and central nervous system damage.

## SECTION 12 ECOLOGICAL INFORMATION

#### **ECOTOXICITY**

The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

#### **ENVIRONMENTAL FATE**

This material is expected to be readily biodegradable.

## SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

## SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT Shipping Name: NOT REGULATED AS A HAZARDOUS MATERIAL FOR TRANSPORTATION

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UNDER 49 CFR

DOT Hazard Class: NOT APPLICABLE

**DOT Identification Number: NOT APPLICABLE** 

DOT Packing Group: NOT APPLICABLE

## SECTION 15 REGULATORY INFORMATION

SARA 311/312 CATEGORIES:

1. Immediate (Acute) Health Effects:

YES

Delayed (Chronic) Health Effects:

YES

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3. Fire Hazard:

NO

4. Sudden Release of Pressure Hazard:

NO

5. Reactivity Hazard:

NO

#### **REGULATORY LISTS SEARCHED:**

4\_I1=IARC Group 1

15=SARA Section 313

4\_I2A=IARC Group 2A

16=CA Proposition 65

4\_I2B=IARC Group 2B

17=MA RTK

05=NTP Carcinogen

18=NJ RTK

06=OSHA Carcinogen

19=DOT Marine Pollutant

09=TSCA 12(b)

20=PA RTK

The following components of this material are found on the regulatory lists indicated.

Ethylene Glycol

15, 17, 18, 20

## CERCLA REPORTABLE QUANTITIES(RQ)/SARA 302 THRESHOLD PLANNING QUANTITIES(TPQ):

Component	Component RQ	Component TPQ	Product RQ
Ethylene Glycol	5000 lbs	None	10963 lbs

#### **CHEMICAL INVENTORIES:**

CANADA: One or more components of this product are not on the Domestic Substances List (DSL). Volume tracking or notification by the Canadian Importer of Record may be required.

EUROPEAN UNION: All the components of this material are in compliance with the EU Seventh Amendment Directive 92/32/EEC.

UNITED STATES: All of the components of this material are on the Toxic Substances Control Act (TSCA) Chemical Inventory.

## **NEW JERSEY RTK CLASSIFICATION:**

Refer to components listed in Section 2.

#### WHMIS CLASSIFICATION:

Class D, Division 1, Subdivision B: Toxic Material -

Acute Lethality

Class D, Division 2, Subdivision A: Very Toxic Material -

Chronic Toxic Effects

Teratogenicity and Embryotoxicity

Reproductive Toxicity

Class D, Division 2, Subdivision B: Toxic Material -

Chronic Toxic Effects Skin or Eye Irritation

## SECTION 16 OTHER INFORMATION

**NFPA RATINGS:** 

Health: 2

Flammability: 0

Reactivity: 0

HMIS RATINGS:

Health: 2\*

Flammability: 0

Reactivity: 0

(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, \*- Chronic Effect Indicator). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

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**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 1, 2, 3, 15

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV - Threshold Limit Value

TWA - Time Weighted Average

STEL - Short-term Exposure Limit

PEL - Permissible Exposure Limit

CAS

Chemical Abstract Service Number

NDA - No Data Available

NA - Not Applicable

<=

Less Than or Equal To

>=

Greater Than or Equal To

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the ChevronTexaco Energy Research & Technology Company, 100 Chevron Way, Richmond, California 94802.

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

# CATERPILLAR

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MSDS Number:

10235

Product Name:

Cat ELC

(Extended Life

Coolant) 50/50

Manufacturer:

ChevronTexaco

Part Number(s):

1012844 1012845

1195148 1292151

1562653 2221534

## 24-hour Emergency Contacts:

Rocky Mountain Poison Center

Denver, Colorado

(800) 458-5924 toll free U.S. & Canada

(303) 893-1322

Swiss Toxicological Information Centre

- Zurich, Switzerland

++ 41 (0) 1 251 51 51

## If you have questions about Caterpillar Material Safety Data Sheets, please contact:

Gina Staniszewski

Caterpillar Inc.

100 NE Adams Street Pcoria, IL USA 61629-3350

(309) 675-5182 phone

(309) 494-1462 fax