

# Material Safety Data Sheet

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

### Chevron Starting Fluid (Spray Type)

**Product Use:** Fuel Additive  
**Product Number(s):** CPS213105

**Company Identification**  
Chevron Products Company  
Chevron Global Lubricants  
6001 Bollinger Canyon Rd.  
San Ramon, CA 94583  
United States of America  
www.chevronlubricants.com

**Transportation Emergency Response**  
CHEMTREC: (800) 424-9300 or (703) 527-3887

**Health Emergency**  
Chevron Emergency Information Center: Located in the USA. International collect calls accepted.  
(800) 231-0623 or (510) 231-0623

**Product Information**  
email : lubemsds@chevrontexaco.com  
Product Information: (800) LUBE TEK  
MSDS Requests: (800) 414-6737

## SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Diethyl ether	60-29-7	75 - 90 %weight
Toluene (methylbenzene)	108-88-3	3 - 9.9 %weight
Distillates, hydrotreated light naphthenic	64742-53-6	1 - 4.9 %weight
Carbon dioxide	124-38-9	3 - 9.9 %weight

## SECTION 3 HAZARDS IDENTIFICATION

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### **EMERGENCY OVERVIEW**

- EXTREMELY FLAMMABLE AEROSOL
- CONTENTS UNDER PRESSURE
- HARMFUL OR FATAL IF SWALLOWED - MAY CAUSE LUNG DAMAGE IF SWALLOWED
- MAY BE HARMFUL IF INHALED - CAUSES HEADACHE, DROWSINESS, OR OTHER EFFECTS TO THE NERVOUS SYSTEM
- CAUSES EYE IRRITATION

- BIRTH DEFECT HAZARD - CONTAINS MATERIAL THAT MAY CAUSE BIRTH DEFECTS
- MAY CAUSE DAMAGE TO:
- AUDITORY SYSTEM

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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:** Skin contact may cause drying or defatting of the skin. Contact with the skin is not expected to cause an allergic skin response. Symptoms may include pain, itching, discoloration, swelling, and blistering. Not expected to be harmful to internal organs if absorbed through the skin.  
**Ingestion:** Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death.  
**Inhalation:** Intentional misuse by deliberately inhaling this material may be harmful or fatal. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

**DELAYED OR OTHER HEALTH EFFECTS:**

**Reproduction and Birth Defects:** Contains material that may cause birth defects.  
**Target Organs:** Contains material that may cause damage to the following organ(s) following repeated inhalation at concentrations above the recommended exposure limit: Nervous System Auditory System  
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:** Wash skin with water immediately and remove contaminated clothing and shoes. Get medical attention if any symptoms develop. 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. If swallowed, get 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.  
**Note to Physicians:** Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis.

**SECTION 5 FIRE FIGHTING MEASURES**

**FIRE CLASSIFICATION:**  
OSHA Classification (29 CFR 1910.1200): Flammable aerosol.

**NFPA RATINGS:** Health: 2 Flammability: 4 Reactivity: 1

**FLAMMABLE PROPERTIES:**

**Flashpoint:** (Tagliabue Closed Cup ASTM D56) -45 °C (-49 °F)

**Autoignition:** 180 °C (356 °F) (Typical)

**Flammability (Explosive) Limits (% by volume in air):** Lower: 1.7 Upper: 48

**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 compounds will be evolved when this material undergoes combustion.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Protective Measures:** Eliminate all sources of ignition in the vicinity of the released aerosol.

**Spill Management:** Clean up spills immediately, observing precautions in Exposure Controls/Personal Protection section.

**Reporting:** Report spills to local authorities as appropriate or required.

**SECTION 7 HANDLING AND STORAGE**

**Precautionary Measures:** This material presents a fire hazard. It can catch fire and burn so vigorously and persistently that it creates a serious hazard. Do not get in eyes, on skin, or on clothing. Do not taste or swallow. Do not breathe vapor or fumes. Wash thoroughly after handling. Keep out of the reach of children.

**General Handling Information:** Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.

**Static Hazard:** Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.

**General Storage Information:** DO NOT USE OR STORE near heat, sparks, flames, or hot surfaces. USE AND STORE ONLY IN WELL VENTILATED AREA. Keep container closed when not in use.

**Container Warnings:** 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.

**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:** Wear protective clothing to prevent skin contact. Selection of protective clothing may include gloves, apron, boots, and complete facial protection depending on operations conducted. Suggested materials for protective gloves include: Nitrile Rubber, Polyvinyl Alcohol (PVA) (Note: Avoid contact with water. PVA deteriorates in water.).

**Respiratory Protection:** Determine if airborne concentrations are below the recommended occupational exposure limits for jurisdiction of use. If airborne concentrations are above the acceptable limits, wear an approved respirator that provides adequate protection from this material, such as: Supplied-Air Respirator, or Air-Purifying Respirator for Organic Vapors. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

**Occupational Exposure Limits:**

Component	Agency	TWA	STEL	Ceiling	Notation
Carbon dioxide	ACGIH	5000 ppm (weight)	30000 ppm (weight)	--	--
Carbon dioxide	OSHA Z-1	9000 mg/m3	--	--	--
Diethyl ether	ACGIH	400 ppm (weight)	500 ppm (weight)	--	--
Diethyl ether	OSHA Z-1	1200 mg/m3	--	--	--
Distillates, hydrotreated light naphthenic	ACGIH	5 mg/m3	10 mg/m3	--	--
Distillates, hydrotreated light naphthenic	OSHA Z-1	5 mg/m3	--	--	--
Toluene (methylbenzene)	ACGIH	50 ppm (weight)	--	--	Skin A4
Toluene (methylbenzene)	OSHA Z-2	200 ppm (weight)	--	300 ppm (weight)	--

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

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

**Color:** Colorless

**Physical State:** Liquid

**Odor:** Pungent

**pH:** Not Applicable

**Vapor Pressure:** 538 mmHg @ 25 °C (77 °F)

**Vapor Density (Air = 1):** 2.5 (Approximate)

**Boiling Point:** 34.6°C (94.3°F) (Typical)

**Solubility:** 6 % (Approximate)

**Freezing Point:** -116°C (-176.8°F) (Typical)

**Specific Gravity:** 0.7  
**Viscosity:** 0.24 cP @ 20°C (68°F)  
**Evaporation Rate:** 37.5 (Approximate)

## 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 acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

**Hazardous Decomposition Products:** None known (None expected)

**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:** The skin sensitization hazard is based on evaluation of data for similar materials or product components.

**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 toluene.

**GENERAL TOXICITY:** The primary effects of exposure to toluene in animals and humans are on the central nervous system. Solvent abusers, who typically inhale high concentrations (thousands of ppm) for brief periods of time, in addition to experiencing respiratory tract irritation, often suffer permanent central nervous system effects that include tremors, staggered gait, impaired speech, hearing and vision loss, and changes in brain tissue. Death in some solvent abusers has been attributed to cardiac arrhythmias, which appear to have been triggered by epinephrine acting on solvent sensitized cardiac tissue. Although liver and kidney effects have been seen in some solvent abusers, results of animal testing with toluene do not support these as primary target organs.

**HEARING:** Humans who were occupationally exposed to concentrations of toluene as low as 100 ppm for long periods of time have experienced hearing deficits. Hearing loss, as demonstrated using behavioral and electrophysiological testing as well as by observation of structural damage to cochlear hair cells, occurred in experimental animals exposed to toluene. It also appears that toluene exposure and noise may interact to produce hearing deficits.

**COLOR VISION:** In a single study of workers exposed to toluene at levels under 50 ppm, small decreases in the ability to discriminate colors in the blue-yellow range have been reported for female workers. This effect, which should be investigated further, is very subtle and would not likely have been noticed by the people tested.

**REPRODUCTIVE/DEVELOPMENTAL TOXICITY:** Toluene may also cause mental and/or growth retardation in the children of female solvent abusers who directly inhale toluene (usually at thousands of ppm) when they are pregnant. Toluene caused growth retardation in rats and rabbits when administered at doses that were toxic to the mothers. In rats, concentrations of up to 5000 ppm did not cause birth defects. No effects were observed in the offspring at doses that did

not intoxicate the pregnant animals. The exposure level at which no effects were seen (No Observed Effect Level, NOEL) is 750 ppm in the rat and 500 ppm in the rabbit.

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

## SECTION 12 ECOLOGICAL INFORMATION

### ECOTOXICITY

This material is not expected to be harmful to aquatic organisms. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.

### ENVIRONMENTAL FATE

This material is not 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 Description:** AEROSOL, FLAMMABLE, N.O.S(ENGINE STARTING FLUID), 2.1, UN1950

**Additional Information:**EACH CONTAINER NOT TO EXCEED 1 LITER.

**IMO/IMDG Shipping Description:** UN1950, AEROSOLS, 2.1

**ICAO/IATA Shipping Description:** UN1950, AEROSOL, FLAMMABLE, ENGINE STARTING FLUID, 2.1

## SECTION 15 REGULATORY INFORMATION

- EPCRA 311/312 CATEGORIES:** 1. Immediate (Acute) Health Effects: YES  
 2. Delayed (Chronic) Health Effects: YES  
 3. Fire Hazard: YES  
 4. Sudden Release of Pressure Hazard: YES  
 5. Reactivity Hazard: YES

**REGULATORY LISTS SEARCHED:**

- |                     |                      |
|---------------------|----------------------|
| 01-1=IARC Group 1   | 03=EPCRA 313         |
| 01-2A=IARC Group 2A | 04=CA Proposition 65 |
| 01-2B=IARC Group 2B | 05=MA RTK            |
| 02=NTP Carcinogen   | 06=NJ RTK            |
|                     | 07=PA RTK            |

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

- |                         |                    |
|-------------------------|--------------------|
| Carbon dioxide          | 05, 06, 07         |
| Diethyl ether           | 05, 06, 07         |
| Toluene (methylbenzene) | 03, 04, 05, 06, 07 |

**CERCLA REPORTABLE QUANTITIES(RQ)/EPCRA 302 THRESHOLD PLANNING QUANTITIES(TPQ):**

Component	Component RQ	Component TPQ	Product RQ
Diethyl ether	100 lbs	None	111 lbs
Toluene (methylbenzene)	1000 lbs	None	11111 lbs

**CHEMICAL INVENTORIES:**

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), ENCS (Japan), IECSC (China), KECI (Korea), PICCS (Philippines), TSCA (United States).

**NEW JERSEY RTK CLASSIFICATION:**

Refer to components listed in Section 2.

**WHMIS CLASSIFICATION:**

- Class B, Division 5: Flammable Aerosols
- Class D, Division 2, Subdivision A: Very Toxic Material - Teratogenicity and Embryotoxicity
- Class D, Division 2, Subdivision B: Toxic Material - Skin or Eye Irritation

**SECTION 16 OTHER INFORMATION**

**NFPA RATINGS:** Health: 2 Flammability: 4 Reactivity: 1

**HMIS RATINGS:** Health: 2\* Flammability: 4 Reactivity: 2  
 (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).

**LABEL RECOMMENDATION:**

Label Category : AEROSOL 3 - AER3

**REVISION STATEMENT:** This revision updates the following sections of this Material Safety Data Sheet: 2,3,4,5,9,14,15,16**Revision Date:** December 13, 2006**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
ACGIH - American Conference of Government Industrial Hygienists	IMO/IMDG - International Maritime Dangerous Goods Code
API - American Petroleum Institute	MSDS - Material Safety Data Sheet
CVX - Chevron	NFPA - National Fire Protection Association (USA)
DOT - Department of Transportation (USA)	NTP - National Toxicology Program (USA)
IARC - International Agency for Research on Cancer	OSHA - Occupational Safety and Health Administration

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by the Chevron Energy 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.**