

Material Safety Data Sheet



SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Chevron PRO-GARD® Fuel Injector Cleaner

Product Use: Fuel Additive

Product Number(s): 266339

Company Identification

Chevron Products Company
a division of Chevron U.S.A. Inc.
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@chevron.com
Product Information: (800) LUBE TEK

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Distillates (petroleum), hydrotreated light	64742-47-8	< 80 %weight
Stoddard solvent	8052-41-3	< 50 %weight

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

- COMBUSTIBLE LIQUID AND VAPOR
- HARMFUL OR FATAL IF SWALLOWED - MAY CAUSE LUNG DAMAGE IF SWALLOWED
- MAY CAUSE DIZZINESS, DROWSINESS AND REDUCED ALERTNESS
- TOXIC TO AQUATIC ORGANISMS. MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation.

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. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

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: The vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. Excessive or prolonged breathing of this material 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.

SECTION 4 FIRST AID MEASURES

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

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.

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. 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 or if any other symptoms develop.

Note to Physicians: Ingestion of this product or subsequent vomiting may result in aspiration of light hydrocarbon liquid, which may cause pneumonitis. In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

SECTION 5 FIRE FIGHTING MEASURES

Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs). See Section 7 for proper handling and storage.

FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Combustible liquid.

NFPA RATINGS: Health: 1 Flammability: 1 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: (Pensky-Martens Closed Cup) 41 °C (105 °F) (Min)

Autoignition: 240 °C (464 °F) (Typical)

Flammability (Explosive) Limits (% by volume in air): Lower: 2.3 Upper: 14.4

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

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 spill or released vapor. If this material is released into the work area, evacuate the area immediately. Monitor area with combustible gas indicator.

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. All equipment used when handling the product must be grounded. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. 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: Liquid evaporates and forms vapor (fumes) which can catch fire and burn with explosive force. Invisible vapor spreads easily and can be set on fire by many sources such as pilot lights, welding equipment, and electrical motors and switches. Fire hazard is greater as liquid temperature rises above 29C (85F).

DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

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.

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: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

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: Chlorinated Polyethylene (or Chlorosulfonated Polyethylene), Nitrile Rubber, Polyurethane, Viton.

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: Air-Purifying Respirator for Organic Vapors.

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
Distillates (petroleum), hydrotreated light	ACGIH	200 mg/m3	--	--	Skin A3 Total hydrocarbon vapor
Stoddard solvent	ACGIH	100 ppm (weight)	--	--	--
Stoddard solvent	OSHA Z-1	2900 mg/m3	--	--	--

Consult local authorities for appropriate values.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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

Color: Colorless to yellow

Physical State: Liquid

Odor: Petroleum odor

pH: Not Applicable

Vapor Pressure: 2 mmHg (Typical) @ 20 °C (68 °F)

Vapor Density (Air = 1): <1

Boiling Point: 157.2°C (315°F) (Min)

Solubility: Soluble in hydrocarbons; insoluble in water

Freezing Point: Not Applicable

Specific Gravity: 0.8 @ 10°C (50°F)

Viscosity: 1.2 mm2/s @ 25°C (77°F) (Typical)

Evaporation Rate: No data available

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:

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains Stoddard solvent, a mixture of straight and branched-chain paraffins, naphthenes and aromatic hydrocarbons. Based on studies of Stoddard solvent sample 85-01 sponsored by the American Petroleum Institute, the acute dermal LD50 was found to be >3.0 g/kg and the acute oral LD50 was found to be >5.0 g/kg. Acute inhalation toxicity tests showed a no observable effect level for inhalation of Stoddard solvent at 4.0 mg/l, with eye irritation and slight loss of coordination at 8 mg/l, and tremors, CNS depression and death within 7.5 hours of exposure to 10 mg/l. In a 28-day dermal study sponsored by the API, moderate skin irritation occurred at 200 mg/kg, with moderate to severe irritation above 1000 mg/kg. The API also determined the primary dermal irritation index to be 4.5, and the primary eye irritation index to be 0.0 at 24 hours. In human sensory response tests, exposure to Stoddard solvent at 0.60 mg/l caused mild eye and nose irritation after 30 minutes, with increased blink rate and eye irritation at 2.4 mg/l, and eye irritation and tearing at 2.7 mg/l. No significant effects on psychomotor performance were noted.

COMPONENT: Light Aromatic Solvent Naphtha (CAS 64742-95-6, also described as High-Flash Aromatic Naphtha, Type I, as defined by ASTM D-3734). GENETIC TOXICITY: No evidence of genetic toxicity was observed in the following tests: Salmonella typhimurium reverse mutation assay (Ames test), in vitro Chinese Hamster Ovary (CHO) cell HGPRT mutation assay, in vitro Chinese Hamster Ovary (CHO) cell chromosomal aberration assay, in vitro Chinese Hamster Ovary (CHO) cell sister chromatid exchange assay, and in vivo rat bone marrow chromosome aberration assay. SUBCHRONIC TOXICITY: In a 13-week rat inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day, 5 days/week, no target organ toxicity including neurotoxicity was observed at any dose level. Slight general systemic toxicity (decreased body weight gain) was observed at 1500 ppm.

DEVELOPMENTAL TOXICITY: In a mouse inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day on gestation days 6-15, no signs of maternal toxicity or developmental toxicity were observed at 100 ppm. At 500 ppm, maternal toxicity (decreased body weight gain) and developmental toxicity (decreased fetal body weight) were observed. Severe maternal toxicity (44% mortality, decreased

body weight gain, clinical signs of toxicity) and developmental toxicity (decreased number of live fetuses per litter, increased post-implantation losses per dam, decreased fetal body weights, delayed ossification, cleft palate) were observed at 1500 ppm. In a rat inhalation study using dose levels of 600, 1000, and 2000 mg/m³ for 24 hours/day on gestation days 7-15, signs of maternal toxicity (decreased body weight gain) were observed at all dose levels. At 600 mg/m³, no signs of fetal or developmental toxicity were observed. Signs of fetal toxicity (decreased male fetal body weight) and developmental toxicity (delayed ossification) were observed at 1000 and 2000 mg/m³. **REPRODUCTIVE TOXICITY:** In a rat 3-generation inhalation study using dose levels of 0, 100, 500, and 1500 ppm for 6 hours/day, 5 days/week, no signs of general systemic or reproductive toxicity were observed at 100 ppm. At 500 ppm, slight parental toxicity (decreased body weight gain) and postnatal toxicity (decreased pup body weight) were observed, but reproductive parameters were not affected. Severe parental toxicity (mortality, decreased body weight gain, clinical signs of toxicity) and postnatal toxicity (decreased pup body weight) were observed at 1500 ppm, but reproductive parameters were not affected.

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY

This material is expected to be toxic to aquatic organisms and may cause long-term adverse effects in the aquatic environment. The ecotoxicity hazard is based on an evaluation of data for the components or a similar material.

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: UN1268, PETROLEUM DISTILLATES, N.O.S., COMBUSTIBLE LIQUID, III
NOTE: NON-BULK PACKAGES ARE NOT REGULATED IN THE U.S.A. SEE 49 CFR 173.150 (f) FOR SPECIAL PROVISIONS FOR VESSEL AND AIRCRAFT.

IMO/IMDG Shipping Description: UN1268, PETROLEUM DISTILLATES, N.O.S. (STODDARD SOLVENT), 3, III, FLASH POINT SEE SECTION 5 OR 9, MARINE POLLUTANT (STODDARD SOLVENT)

ICAO/IATA Shipping Description: UN1268, PETROLEUM DISTILLATES, N.O.S., 3, III, MARINE POLLUTANT (STODDARD SOLVENT)

SECTION 15 REGULATORY INFORMATION

EPCRA 311/312 CATEGORIES: 1. Immediate (Acute) Health Effects: YES

- | | |
|---------------------------------------|-----|
| 2. Delayed (Chronic) Health Effects: | NO |
| 3. Fire Hazard: | YES |
| 4. Sudden Release of Pressure Hazard: | NO |
| 5. Reactivity Hazard: | NO |

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.

Distillates (petroleum), hydrotreated light	05, 06, 07
Stoddard solvent	05, 06, 07

CHEMICAL INVENTORIES:

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

NEW JERSEY RTK CLASSIFICATION:

Refer to components listed in Section 2.

WHMIS CLASSIFICATION:

Class B, Division 3: Combustible Liquids

SECTION 16 OTHER INFORMATION

NFPA RATINGS: Health: 1 Flammability: 1 Reactivity: 0

HMIS RATINGS: Health: 2 Flammability: 1 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).

LABEL RECOMMENDATION:

Label Category : FUEL ADDITIVE 3 - ADD3

REVISION STATEMENT: This revision updates the following sections of this Safety Data Sheet: 1-16

Revision Date: October 28, 2013

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 Governmental 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
NCEL - New Chemical Exposure Limit	EPA - Environmental Protection Agency
SCBA - Self-Contained Breathing Apparatus	

Prepared according to the 29 CFR 1910.1200 (2012) by Chevron Energy Technology Company, 6001 Bollinger Canyon Road San Ramon, CA 94583.

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.