



Prepared according to 29CFR 1910.1200.

1	Chemical Product and Company Identification
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The Lubrizol Corporation
 29400 Lakeland Boulevard
 Wickliffe, Ohio 44092
 Tel: (440) 943-4200

Product Trade Name LUBRIZOL® 9570CM
CAS Number Not applicable for mixtures.
Synonyms None.
Generic Chemical Name Mixture.
Product Type Miscellaneous fuel additive.
Preparation/Revision Date 24 June 2009
Transportation Emergency Phone No. FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)
MSDS No. 37485189-2026626-3021910-102103

2	Hazards Identification
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Appearance Amber colored liquid.
Odor Pungent
Principal Hazards Danger.

- Causes severe skin irritation.
- Harmful if inhaled.
- Causes respiratory tract irritation.
- Harmful if absorbed through skin.
- Combustible liquid.
- Suspected of damaging the unborn child.
- May cause eye irritation.
- May cause chronic health effects.

Target Organs: Central nervous system Kidney Liver Lung

See Section 11 for complete health hazard information.

3	Composition/Information on Ingredients
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Hazardous Ingredients

Comp	CAS No.	Percentage (by wt.)	Carcinogen
2-Ethylhexyl nitrate	27247-96-7	From 60 to 69.9 percent	N/E
Petroleum naphtha	64742-95-6	From 5 to 9.9 percent	N/E
Propylene glycol ether	107-98-2	From 1 to 4.9 percent	N/E
Trimethylbenzene	25551-13-7	From 1 to 4.9 percent	N/E
1,2,4-Trimethylbenzene	95-63-6	2.9%	N/E

Ethylbenzene	100-41-4	0.2%	IARC Suspect Carcinogen
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(N/E) - None established

4	First Aid Measures
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Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical attention.
Skin	Wash with plenty of soap and water. Immediately remove contaminated clothing. If skin irritation occurs, seek medical attention. Launder contaminated clothing before reuse.
Inhalation	Remove exposed person to fresh air. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. Call a poison center or doctor if you feel unwell.
Oral	DO NOT INDUCE VOMITING. Aspiration of material due to vomiting can cause chemical pneumonitis which can be fatal. Get immediate medical attention. If vomiting occurs naturally, the casualty should lean forward to reduce the risk of aspiration. Do NOT induce vomiting. Immediately call a poison center or doctor.
Additional Information	If exposed or concerned: Get medical attention.

5	Fire Fighting Measures
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Flash Point	53 °C, 127.4 °F PMCC (Typical)
Extinguishing Media	CO ₂ , dry chemical, or foam. Water can be used to cool and protect exposed material.
Firefighting Procedures	Recommend wearing self-contained breathing apparatus. Water may cause splattering.
Unusual Fire & Explosion Hazards	Toxic fumes, gases or vapors may evolve on burning. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Container may rupture on heating. Toxic nitrogen oxides may evolve when burning. The alkyl nitrate contained in this product may decompose exothermically if heated above 100° C. Studies in the Koenen Tube Test indicate that the reaction is non-explosive even when the alkyl nitrate is present at levels up to 70%.

6	Accidental Release Measures
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Spill Procedures	May form explosive mixtures with air. Immediately evacuate all personnel from danger area. Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Eliminate all sources of heat, sparks pilot lights, static electricity and open flames. Ventilate spill area. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation. Pick up free liquid for recycle and/or disposal if can be accomplished safely with explosion proof equipment. Residual liquid can be absorbed on inert material. Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine regulatory reporting requirements for spills.
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7	Handling and Storage
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Pumping Temperature	Not determined.
Maximum Handling Temperature	Not determined.
Handling Procedures	Keep away from ignition sources such as heat, sparks and open flame. No smoking. Keep containers closed when not in use. Do not discharge into drains or the environment, dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. DO NOT HEAT. Avoid breathing dust, fume, gas, mist, vapors or spray. Ground / bond container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Wash thoroughly after handling. Empty containers retain material

residue. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, spark or other sources of ignition.

Maximum Storage Temperature Not determined.

Storage Procedures Do not store near potential sources of ignition. Isolated outside storage is preferred. Inside storage area should be in a flammable liquids cabinet or storage area. Take precautions to avoid release to the environment. Store in a cool, dry, well-ventilated area. Keep container tightly closed.

Loading Temperature Not determined.

8	Exposure Controls/Personal Protection
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Exposure Limits

Comp	Exposure Guidelines					
	OSHA		ACGIH		Other	
	TWA	STEL	TWA	STEL	TWA	STEL
2-Ethylhexyl nitrate	N/E	N/E	N/E	N/E	1 ppm (l)	N/E
Petroleum naphtha	N/E	N/E	N/E	N/E	100 ppm (u)	N/E
Propylene glycol ether	N/E	N/E	100 ppm	150 ppm	N/E	N/E
Trimethylbenzene	N/E	N/E	25 ppm	N/E	N/E	N/E
Ethylbenzene	100 ppm	N/E	100 ppm	125 ppm	N/E	N/E

(s) - Skin exposure

(p) - Proposed limit

(c) - Ceiling exposure

(l) - Recommended exposure limit

(u) - Supplier recommended exposure limit

(N/E) - None established

Other Exposure Limits The recommended TWA for 2-Ethylhexyl nitrate is 1 PPM.

Engineering Controls Use local exhaust ventilation to control mists or vapors. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits. Use explosion proof equipment.

Gloves Procedures Nitrile.

Eye Protection Chemical goggles or faceshield.

Respiratory Protection Use NIOSH/MSHA approved disposable dust/mist mask if the recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites. Consult with an industrial hygienist to determine the appropriate respiratory protection for your specific use of this material. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator.

Clothing Recommendation Gloves, coveralls, apron, boots as necessary to minimize contact. Wear either a chemical protective suit or apron when potential for contact with material exists. Use chemically protective boots when necessary to avoid contaminating shoes. Do not wear rings, watches or similar apparel that could entrap the material and cause a burn. Launder contaminated clothing before reuse.

9	Physical and Chemical Properties
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Flash Point 53 °C, 127.4 °F PMCC (Typical)

Upper Flammable Limit Not determined.

Lower Flammable Limit Not determined.

Autoignition Point	Not determined.
Explosion Data	Material does not have explosive properties in the liquid state, but vapors may form explosive mixtures with air.
Vapor Pressure	Not determined.
pH	Not determined.
Specific Gravity	0.95 (15.6 °C)
Bulk Density	Not determined.
Water Solubility	Insoluble.
Percent Solid	Not determined.
Percent Volatile	Not determined.
Volatile Organic Compound	Not determined.
Vapor Density	Not determined.
Evaporation Rate	Not determined.
Odor	Pungent
Appearance	Amber colored liquid.
Viscosity	12 Centistokes (0 °C) 5 Centistokes (25 °C) 3.7 Centistokes (40 °C)
Odor Threshold	Not determined.
Boiling Point	Not determined.
Pour Point Temperature	-57 °C, -71 °F
Melting / Freezing Point	Not determined.

The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise noted.

10	Stability and Reactivity
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Stability	Material can become unstable at elevated temperatures and pressures.
Decomposition Temperature	Not determined.
Incompatibility	Strong oxidizing agents. Nitriles.
Polymerization	Will not occur.
Thermal Decomposition	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Under combustion conditions, oxides of the following elements will be formed: nitrogen.
Conditions to Avoid	Not determined.

11	Toxicological Information
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-- ACUTE EXPOSURE --

Eye Irritation	Weak to moderate eye irritant. Does not meet EU R36 criteria. Based on data from similar materials.
Skin Irritation	Severe skin irritant. Based on data from similar materials. Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, edema, drying, and cracking of the skin.
Respiratory Irritation	Nose, throat and lung irritant. Based on data from similar materials. Exposure to a high concentration of vapor or mist is irritating to the respiratory tract. Breathing of vapor or mist may aggravate asthma and inflammatory or fibrotic pulmonary disease. If fatty acids are over-heated, vapors or entrained mist may cause respiratory irritation.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.

Skin absorption of components of this material may cause systemic effects; note toxicity from other sections. Overexposure to organic nitrates by skin contact may cause headache, nausea and decreased blood pressure.

Inhalation Toxicity	The LC50 (1 hr.) in rats for dust or mist of this material is 20 - 200 mg/l. Based on data from components or similar materials. High concentrations may cause headaches, dizziness, nausea, stupor, and other central nervous system effects leading to visual impairment, difficulty breathing and convulsions. Overexposure to organic nitrates by inhalation may cause headache, nausea and decreased blood pressure.
Oral Toxicity	The LD50 in rats is > 10,000 mg/Kg. Based on data from components or similar materials. Ingestion can cause cyanosis, collapse, and coma.
Dermal Sensitization	No data available to indicate product or components may be a skin sensitizer.
Inhalation Sensitization	No data available to indicate product or components may be respiratory sensitizers.

-- CHRONIC EXPOSURE --

Chronic Toxicity	Repeated overexposure to propylene glycol ether may cause lung, liver and kidney damage. Prolonged or repeated overexposure to petroleum naphtha may cause liver and kidney damage.
Carcinogenicity	A National Toxicology Program (NTP) study found an increased incidence of renal tubule neoplasms in male and female rats exposed to ethylbenzene by inhalation for two years. In male and female mice similarly exposed, increased incidences of alveolar/bronchiolar neoplasms, and hepatocellular neoplasms, respectively, were observed. Ethylbenzene has been classified by IARC as a possible human carcinogen (Group 2B) on the basis of sufficient evidence of carcinogenicity in experimental animals but inadequate evidence in exposed humans.
Mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
Teratogenicity	2-Methoxy-1-propanol caused dose related developmental effects in rabbits following inhalation exposure. The effects included increased fetal resorption, incidence of fetal visceral and skeletal malformations/variations, and reduced fetal body weights in the absence of maternal toxicity. In addition, when pregnant rats and rabbits were exposed to 2-methoxypropanol acetate (which rapidly hydrolyzes to 2-Methoxy-1-propanol in the body) via inhalation similar developmental effects were observed. The effects in rats included fetal resorption, thoracic vertebral incision, and split vertebrae while malformations of the sternum, paws, major blood vessels and heart were observed in rabbits.

-- ADDITIONAL INFORMATION --

Other	No other health hazards known.
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12	Ecological Information
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-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity	The acute LC50 is 10 - 100 mg/L based on component data.
Freshwater Invertebrates Toxicity	The acute EC50 is 1 - 10 mg/L based on component data.
Algal Inhibition	The acute EC50 is 10 - 100 mg/L based on component data.
Saltwater Fish Toxicity	Not determined.
Saltwater Invertebrates Toxicity	Not determined.
Bacteria Toxicity	The acute EC50 is 10 - 100 ppm based on component data.
Miscellaneous Toxicity	Not determined.

-- ENVIRONMENTAL FATE --

Biodegradation	At least 25% of the components in this product show limited biodegradation based on OECD 301-type test data.
Bioaccumulation	25% or greater of the components potentially bioconcentrate, based on octanol/water coefficients.
Soil Mobility	Not determined.

13	Disposal Considerations
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Waste Disposal	This material, if discarded, is a hazardous waste under RCRA Regulation 40 CFR 261. Material, if discarded, is expected to be hazardous waste under RCRA due to ignitability (D001). 0.00008% Benzene, CAS no. 71-43-2, D018. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.
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14	Transport Information
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ICAO/IATA I	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Propylene glycol ether), Class 3, PG III
ICAO/IATA II	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Propylene glycol ether), Class 3, PG III, Marine Pollutant (Alkyl C7-C9 nitrates)
IMDG	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Propylene glycol ether), Class 3, PG III, Marine Pollutant (Alkyl C7-C9 nitrates)
IMDG EMS Fire	F-E
IMDG EMS Spill	S-E
IMDG MFAG	*Subsection 4.2
MARPOL Annex II	Not determined.
USCG Compatibility	Not determined.
U.S. DOT Bulk	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Propylene glycol ether) Class 3, PG III, Marine Pollutant (Alkyl C7-C9 nitrates), RQ (Xylene)
U.S. DOT Non-Bulk	Not regulated.
DOT NAERG	128
TDG Bulk	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Propylene glycol ether), Class 3, PG III, Marine Pollutant (Alkyl C7-C9 nitrates)
TDG Non-Bulk	Not regulated.
Mexico	UN1993 Flammable liquid, n.o.s. (Petroleum naphtha, Propylene glycol ether), Class 3, PG III, Marine Pollutant (Alkyl C7-C9 nitrates)
Mexico Non-Bulk	Not regulated.
Bulk Quantity	85000 liters, 22457 gal.
Non-Bulk Quantity	207.8 liters, 55 gal.

Review classification requirements before shipping materials at elevated temperatures.

15	Regulatory Information
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-- Global Chemical Inventories --

USA	All components of this material are on the US TSCA Inventory or are exempt.
Other TSCA Reg.	Section 8D (2-Propanol, 1-methoxy-).Section 8D (Benzene, ethyl-).Section 8D (Benzene, trimethyl-).Section 8D (Solvent naphtha (petroleum), light aromatic).

EU	All components are in compliance with the EC Seventh amendment Directive 92 /32/EEC.
Japan	This product requires notification in Japan.
Australia	May require notification before sale under Australian regulations.
New Zealand	May require notification before sale under New Zealand regulations.
Canada	All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.
Switzerland	All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.
Korea	This product requires notification before sale in Korea.
Philippines	May require notification before sale under Philippines Republic Act 6969.
China	This product requires notification in China.

-- Other U.S. Federal Regulations --

SARA Ext. Haz. Subst. This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substances list.

SARA Section 313 2.9% 1,2,4-Trimethylbenzene, CAS no. 95-63-6; 0.2% Ethylbenzene, CAS no. 100-41-4

SARA 311 Classifications

Acute Hazard	Yes
Chronic Hazard	Yes
Fire Hazard	Yes
Reactivity Hazard	No

CERCLA Hazardous Substances

Transit Reportable Quantities

Component	Reportable Quantity RQ	Units	Reportable Quantity RQ	Units
Xylene	1523	gal.	5764	liters

FDA Approval Not applicable.

-- State Regulations --

Cal. Prop. 65 This product contains the following chemical(s) known to the state of California to cause cancer and/or birth defects: < 1 ppm Benzene, CAS no. 71-43-2 0.002% Toluene, CAS no. 108-88-3 0.005% Naphthalene, CAS no. 91-20-3 0.184% Ethylbenzene, CAS no. 100-41-4

-- Product Registrations --

U.S. Fuel Registration	This fuel additive is registered in the United States.
U.S. Dept of Agriculture	This product has not been filed with the USDA to support H2 approvals.
NSF Nonfood Compounds Registration	This product has not been filed with the NSF to support H1 or H2 approvals.
Finnish Registration Number	Not Registered
Swedish Registration Number	Not Registered
Norwegian Registration Number	Not Registered
Danish Registration Number	Not Registered
Swiss Registration Number	Not Registered
Italian Registration Number	Not Registered
Korean Registration Number	Not Registered

-- Other / International --

TDG Regulated Limit. None known.

16	Other Information
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US NFPA Codes

Health	Fire	Reactivity	Special
3	2	1	N/E

(N/E) - None established

HMIS Codes

Health	Fire	Reactivity
3*	2	1

Precautionary Labels

Danger.

- Causes severe skin irritation.
- Harmful if inhaled.
- Causes respiratory tract irritation.
- Harmful if absorbed through skin.
- Combustible liquid.
- Suspected of damaging the unborn child.
- May cause eye irritation.
- May cause chronic health effects.

Revision Indicators

Section: 2 Principal hazards.	Changed: 31 March 2009
Section: 3 Hazardous ingredients.	Changed: 29 March 2009
Section: 4 Additional first aid measures.	Changed: 29 March 2009
Section: 4 Inhalation first aid.	Changed: 29 March 2009
Section: 4 Oral first aid.	Changed: 29 March 2009
Section: 4 Skin first aid.	Changed: 29 March 2009
Section: 7 Handling procedures.	Changed: 29 March 2009
Section: 7 Storage procedures.	Changed: 19 July 2008
Section: 8 Clothing recommendations.	Changed: 29 March 2009
Section: 8 Eye protection.	Changed: 29 March 2009
Section: 8 Hazardous ingredients.	Changed: 29 March 2009
Section: 8 Respiratory protection.	Changed: 29 March 2009
Section: 8 Ventilation procedures.	Changed: 27 May 2009
Section: 9 Odor threshold.	Changed: 1 April 2009
Section: 9 Percent volatile.	Changed: 11 December 2008
Section: 11 Inhalation toxicity.	Changed: 27 May 2009
Section: 11 Oral toxicity.	Changed: 27 May 2009
Section: 11 Teratogenicity.	Changed: 11 December 2008
Section: 13 Waste disposal.	Changed: 27 May 2009
Section: 15 MISC. Regulatory info.	Changed: 19 July 2008
Section: 16 HMIS codes.	Changed: 29 March 2009
Section: 16 Miscellaneous information.	Changed: 19 July 2008
Section: 16 NFPA Codes.	Changed: 29 March 2009
Section: 16 Principal hazards.	Changed: 31 March 2009

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