



Prepared according to 29CFR 1910.1200.

1	Chemical Product and Company Identification
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Product Trade Name	LUBRIZOL® 541
CAS Number	Confidential.
Synonyms	None.
Generic Chemical Name	Substituted carboxylic acid
Product Type	Multipurpose.
Preparation/Revision Date	22 August 2013
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.	13456542-3322328-401321-102103

2	Hazards Identification
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Appearance	Amber colored liquid.
Odor	Aromatic hydrocarbon
Principal Hazards	Danger. <ul style="list-style-type: none"> • Causes severe irritation to the respiratory tract. • Flammable liquid. may create a flash fire hazard. • Harmful if inhaled. • May be harmful if absorbed through skin. • May cause eye irritation. • May cause chronic health effects based on data with laboratory animals.

Target Organs: Central nervous system Ear

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
Substituted carboxylic acid	Confidential.	From 60 to 69.9 percent	N/E
Xylene	1330-20-7	29.6%	N/E
Ethyl benzene	100-41-4	7.4%	IARC Suspect Carcinogen
Toluene	108-88-3	From 0.1 to 0.9 percent	N/E

(N/E) - None established

4	First Aid Measures
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Eyes	Rinse cautiously with water for 20 minutes or until chemical is removed. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical attention.
Skin	Immediately remove all contaminated clothing. Rinse skin with water / shower. Get medical attention if irritation develops. Launder contaminated clothing before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. Immediately call a poison center or doctor.
Oral	DO NOT INDUCE VOMITING. Get immediate medical attention.
Additional Information	If exposed or concerned: Get medical attention.

5	Fire Fighting Measures
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Flash Point >= 25 °C, 77 °F PMCC (Minimum)

LUBRIZOL® 541

Extinguishing Media

Firefighting Procedures

CO₂, dry chemical, or foam. Water can be used to cool and protect exposed material.

Wear full protective firegear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Water may cause splattering. A solid stream of water will spread the burning material.

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. See section 10 for additional information.

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. Take precautions to avoid release to the environment. 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.

7	Handling and Storage
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Pumping Temperature

Not determined.

Maximum Handling Temperature

Ambient

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 breath dust, fume, gas, mist, vapors or spray. Ground / bond container and receiving equipment. Use explosion-proof equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Launder contaminated clothing before reuse. 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. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Maximum Storage Temperature

Ambient

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 well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. See section 10 for incompatible materials.

Maximum Loading Temperature

Ambient

8	Exposure Controls/Personal Protection
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Exposure Limits

Comp	Exposure Guidelines						
	OSHA			ACGIH		Other	
	TWA	STEL		TWA	STEL	TWA	STEL
Xylene	100 ppm	N/E		100 ppm	150 ppm	N/E	N/E
Ethyl benzene	100 ppm	N/E		20 ppm	125 ppm	N/E	N/E
Toluene	200 ppm	300 ppm (c)		20 ppm	N/E	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

Confidential - See section 1 for HMIRA exemption status

Other Exposure Limits

None known.

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

Viton. Teflon. Polyvinyl alcohol. Note: polyvinyl alcohol gloves are water soluble and should not be used when there is potential for water contact.

Eye Protection

Safety glasses. If potential for splash or mist exists, wear chemical goggles or faceshield.

Respiratory Protection

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 a chemically protective apron when contact with material may occur. Launder contaminated clothing before reuse.

9	Physical and Chemical Properties
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Flash Point

>= 25 °C, 77 °F PMCC (Minimum)

Upper Flammable Limit

Not determined.

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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	0.02749 psi (Calc) (0 °C) 0.03627 psi (Calc) (4 °C) 0.0896 psi (Calc) (20 °C) 0.22545 psi (Calc) (38 °C) 1.22359 psi (Calc) (77 °C)
pH	Not determined.
Specific Gravity	0.96 (15.6 °C)
Bulk Density	Not determined.
Water Solubility	Insoluble.
Percent Solid	Not determined.
Percent Volatile	37%
Volatile Organic Compound	Not determined.
Vapor Density	Not determined.
Evaporation Rate	Not determined.
Odor	Aromatic hydrocarbon
Appearance	Amber colored liquid.
Viscosity	40 Centistokes (40 °C) 5 Centistokes (100 °C)
Odor Threshold	Not determined.
Boiling Point	137 °C, 278.6 °F(Initial)
Pour Point Temperature	Not determined.
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
Stability	Material is normally stable at moderately elevated temperatures and pressures.
Decomposition Temperature	Not determined.
Incompatibility	Oxidizing agents.
Polymerization	Will not occur.
Thermal Decomposition	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.
Conditions to Avoid	Not determined.
11	Toxicological Information

-- ACUTE EXPOSURE --

Eye Irritation	Weak to moderate eye irritant. Does not meet Canadian D2B or EU R36 criteria. Based on actual data.
Skin Irritation	Not expected to be a primary skin irritant. Based on actual data. 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	Severe nose, throat and lung irritant. Based on data from similar materials.
Dermal Toxicity	The LD50 in rabbits is > 2000 mg/Kg. Based on data from similar materials. Components of this material may be absorbed through the skin.
Inhalation Toxicity	The LC50 (1 hr.) in rats for vapors of this material is > 200 mg/l. Based on data from components or similar materials. High concentrations may cause headaches, dizziness, fatigue, nausea, vomiting, drowsiness, stupor, other central nervous system effects leading to visual impairment, respiratory failure, unconsciousness and death. The LC50 in rat (4 hr) for xylene is 6,700 ppm.
Oral Toxicity	The LD50 in rats is > 5000 mg/Kg. Based on actual data. Ingestion of this material may produce symptoms similar to those for inhalation. Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in pulmonary edema and chemical pneumonitis.
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	Xylene has been found to cause cardiac, liver and kidney effects, anemia and eye damage in laboratory animals. Prolonged and repeated inhalation of hydrocarbon solvents such as xylene can cause chronic neurological disturbances. Chronic exposure to xylene has been shown to cause hearing loss in experimental animals.
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.

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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

Xylene is fetotoxic in rats and rabbits in the absence of maternal toxicity. Prolonged and repeated exposure of pregnant animals to toluene by inhalation has been reported to cause adverse fetal developmental effects.

-- ADDITIONAL INFORMATION --

Other

No other health hazards known.

12	Ecological Information
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-- ENVIRONMENTAL TOXICITY --

Freshwater Fish Toxicity

The acute LC50 is 100 - 1000 mg/L based on similar materials. Chronic effects expected at 10 - 100 mg/L based on component data.

Freshwater Invertebrates Toxicity

The acute EC50 is 10 - 100 mg/L based on similar materials. Chronic effects expected at 10 - 100 mg/L based on component data.

Algal Inhibition

The acute EC50 is 1 - 10 mg/L based on component data.

Saltwater Fish Toxicity

The acute LC50 is 10 - 100 mg/L based on component data.

Saltwater Invertebrates Toxicity

The acute LC50 is 10 - 100 mg/L based on component data.

Bacteria Toxicity

The acute EC50 is > 1000 ppm based on similar materials.

Miscellaneous Toxicity

Not determined.

-- ENVIRONMENTAL FATE --

Biodegradation

This product shows limited biodegradation based on OECD 301-type test data for similar products.

Bioaccumulation

This material potentially bioconcentrates, based on QSAR calculated octanol/water coefficient data.

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). 0.004% Benzene, CAS no. 71-43-2, D018. Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations.

14	Transport Information
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ICAO/IATA I

UN1307 Xylene solution , 3 , III

ICAO/IATA II

UN1307 Xylene solution , 3 , III

IMDG

UN1307 Xylene solution , 3 , III

IMDG EMS Fire

F-E

IMDG EMS Spill

S-D

IMDG MFAG

310

MARPOL Annex II

Not determined.

USCG Compatibility

Not determined.

U.S. DOT Bulk

UN1307 Xylene solution 3 , III, RQ (Ethylbenzene, Xylene)

DOT NAERG

130

U.S. DOT (Intermediate)

UN1307 Xylene solution 3 , III, RQ (Ethylbenzene, Xylene)

U.S. DOT Intermediate NAERG

130

U.S. DOT Non-Bulk

UN1307 Xylene solution 3 , III, RQ (Xylene)

U.S. DOT Non-Bulk NAERG

130

Canada

UN1307 Xylene solution, 3 , III

Mexico

UN1307 Xylene solution , 3 , III

Bulk Quantity

85000 KG, 187391 lbs.

Intermediate Quantity

11000 KG, 24251 lbs.

Non-Bulk Quantity

400 KG, 882 lbs.

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 (Benzene, ethyl-).

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EU

To obtain information on the REACH compliance status of this product, please visit Lubrizol.com/REACH, or e-mail us at REACH_MSDS_INQUIRIES@Lubrizol.com

Japan

All components are in compliance with the Chemical Substances Control Law of Japan.

Australia

All components are in compliance with chemical notification requirements in Australia.

New Zealand

All components are in compliance with chemical notification requirements in New Zealand.

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

All components are in compliance in Korea.

Philippines

All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).

China

All components of this product are listed on the Inventory of Existing Chemical Substances in China.

Taiwan

All components of this product are listed on the Taiwan inventory.

-- 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

29.6% Xylene (mixed isomers), CAS no. 1330-20-7; 7.4% 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	338	lbs.	153	KG
Ethylbenzene	13526	lbs.	6135	KG

-- 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: 0.004% Benzene, CAS no. 71-43-2 0.296% Toluene, CAS no. 108-88-3 7.4% Ethyl benzene, CAS no. 100-41-4

-- Product Registrations --

U.S. Fuel Registration

This fuel additive is registered in the United States.

Finnish Registration Number

Not Registered

Swedish Registration Number

425203-7

Norwegian Registration Number

23602

Danish Registration Number

Not Registered

Swiss Registration Number

Not Registered

Italian Registration Number

Not Registered

-- Other / International --

Miscellaneous Regulatory Information

Not determined.

16	Other Information
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US NFPA Codes

Health	Fire	Reactivity	Special
2	3	0	N/E

(N/E) - None established

HMIS Codes

Health	Fire	Reactivity
2*	3	0

Precautionary Labels

Danger.

- Causes severe irritation to the respiratory tract.
- Flammable liquid. may create a flash fire hazard.
- Harmful if inhaled.
- May be harmful if absorbed through skin.
- May cause eye irritation.
- May cause chronic health effects based on data with laboratory animals.

Revision Indicators

This MSDS has no revisions since 22 August 2013

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