



Prepared according to Commission Regulation (EU) No 453/2010.

<b>Section 1</b>	<b>Identification of substance/mixture and of the company/undertaking</b>
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**1.1 Product Identifier****LUBRIZOL® 5810**

**Synonyms** None.

**1.2 Relevant identified uses of the substance or mixture and (uses advised against)**

**Relevant identified uses (see section 7.3 for information on REACH registered uses)**

Rust and oxidation inhibitor.

**1.3 Details of the supplier of the safety data sheet**

The Lubrizol Corporation  
29400 Lakeland Boulevard  
Wickliffe, Ohio 44092  
Tel: (440) 943-4200

**E-mail contact** EUSDS@lubrizol.com

**1.4 Emergency Telephone number**

FOR TRANSPORT EMERGENCY call CHEMTREC: (+1) 703-527-3887 (outside the U.S.), 1-800-424-9300 (in the U.S.)

<b>Section 2</b>	<b>Hazards Identification</b>
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**2.1 Classification of the substance or mixture**

(EC) No 1272/2008

Skin Irrit. 2; H315  
Skin Sens. 1; H317  
Aquatic Chronic 2; H411

67/548/EC or 1999/45/EC

Xi  
R33  
R38  
R43  
R52/53

**For a full text of R- and H- phrases: See section 16**

**2.2 Label elements**

(EC) No 1272/2008



Warning.

Causes skin irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

Avoid breathing dust / fume / gas / mist / vapours / spray. Wear protective gloves. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly after handling. Avoid release to the environment.

IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention.

Store away from oxidizers.

All disposal practices must be in accordance with local, national and international regulations.

**Supplemental label information**

None.

**2.3 Other hazards**

None identified.

<b>Section 3</b>	<b>Composition/Information on Ingredients</b>
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## 3.2 Mixtures

(EC) No 1272/2008

EC No.	Registration Number	Percentage (by wt.)	Name	Classification
253-249-4	01-2119488911-28	From 20 to 29.9 percent	Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	Aquatic Chronic 4; H413
279-503-4	Not Available	From 10 to 19.9 percent	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-	Aquatic Chronic 2; H411 Skin Irrit. 2; H315 Skin Sens. 1; H317
279-514-4	Not Available	From 10 to 19.9 percent	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-	Aquatic Chronic 2; H411 Skin Irrit. 2; H315 Skin Sens. 1; H317
Confidentiality Pending	Not Available	From 5 to 9.9 percent	Alkyl imidazoline	Eye Irrit. 2; H319
204-539-4	Not Available	1.4%	Diphenylamine	Acute Tox. 3; H301 Acute Tox. 3; H311 Acute Tox. 3; H331 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 STOT RE 2; H373
265-198-5	Not Available	From 0.1 to 0.9 percent	Naphtha (petroleum), heavy aromatic	Aquatic Chronic 2; H411 Asp. Tox. 1; H304 Eye Irrit. 2; H319 Flam. Liq. 3; H226

## 67/548/EC or 1999/45/EC

EC No.	Registration Number	Percentage (by wt.)	Name	Classification 67/548/EC
253-249-4	01-2119488911-28	From 20 to 29.9 percent	Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	None. R53
279-503-4	Not Available	From 10 to 19.9 percent	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-4-methyl-	N Xi R38 R43 R51/53
279-514-4	Not Available	From 10 to 19.9 percent	1H-Benzotriazole-1-methanamine, N,N-bis(2-ethylhexyl)-5-methyl-	N Xi R38 R43 R51/53
204-539-4	Not Available	1.4%	Diphenylamine	N T R23/24/25 R33 R50/53
265-198-5	Not Available	From 0.1 to 0.9 percent	Naphtha (petroleum), heavy aromatic	N Xn R36/38 R51/53 R65

<b>Section 4</b>	<b>First Aid Measures</b>
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### 4.1 Description of first aid measures

#### Skin

Wash with plenty of soap and water. Immediately remove contaminated clothing. If skin irritation occurs, get medical attention. Launder contaminated clothing before reuse.

#### 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.

#### Inhaled

Remove exposed person to fresh air. Call a poison center or doctor if exposed or you feel unwell.

#### Swallowed

DO NOT INDUCE VOMITING. Get immediate medical attention.

#### Advice for first-aid providers

When providing first aid always protect yourself against exposure to chemicals or blood born diseases by wearing gloves, masks and eye protection. After providing first aid wash your exposed skin with soap and water.

### 4.2 Most important symptoms and effects, both acute and delayed

See section 11.

### 4.3 Indication of any immediate medical attention and special treatment needed

Note to physician: Treat symptomatically.

<b>Section 5</b>	<b>Fire Fighting Measures</b>
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### 5.1 Extinguishing Media

CO<sub>2</sub>, dry chemical, or foam. Water can be used to cool and protect exposed material.

### 5.2 Special hazards arising from substance or mixture

Toxic fumes, gases or vapors may evolve on burning. See section 10 for additional information.

**5.3 Advice for firefighters**

Recommend wearing self-contained breathing apparatus. Water may cause splattering. Do not release chemically contaminated water into drains, soil or surface water.

<b>Section 6</b>	<b>Accidental Release Measures</b>
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**6.1 Personal precautions, protective equipment and emergency procedures**

Personal protective equipment must be worn. Avoid contact with skin. Ventilate area if spilled in a confined space or other poorly ventilated area.

**6.2 Environmental precautions**

Take precautions to avoid release to the environment. Do not flush into surface water, sanitary sewer or ground water system. Check on local, national and international regulatory information to determine any reporting requirements for spills.

**6.3 Methods and material for containment and cleaning up**

Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material.

**6.4 Reference to other sections**

See sections 8 and 13 for additional information.

<b>Section 7</b>	<b>Handling and Storage</b>
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**7.1 Precautions for safe handling**

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. Avoid breathing dust, fume, gas, mist, vapors or spray. Avoid inhalation of dust, aerosol, mist, spray, fume, or vapor. Use with appropriate and adequate ventilation. Avoid skin contact. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Launder contaminated clothing before reuse. Empty container contains product residue which may exhibit hazards of product. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

**Pumping Temperature**

Ambient

**Maximum Handling Temperature**

70 °C, 158 °F

**Maximum Loading Temperature**

Not determined.

**7.2 Conditions for safe storage, including any incompatibilities**

Store separately from oxidizers. Take precautions to avoid release to the environment. See section 10 for incompatible materials.

**Maximum Storage Temperature**

45 °C, 113 °F

**7.3 Specific end use(s)**

End uses are listed in an attached exposure scenario when one is required.

<b>Section 8</b>	<b>Exposure Controls/Personal Protection</b>
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**8.1 Control parameters**

Country	Substance	Long Term (8 Hours T.W.A.)	Short Term (15 mins.)
Austria	Diphenylamine	0.70 ppm (s)	1.40 ppm
Czech Republic	Diphenylamine	10 mg/cu. M	20 mg/cu. M (c)
Denmark	Diphenylamine	5 mg/cu. M	N/E
Estonia	Diphenylamine	10 mg/cu. M	N/E
Finland	Diphenylamine	5 mg/cu. M	10 mg/cu. M
France	Diphenylamine	10 mg/cu. M	N/E
Greece	Diphenylamine	10 mg/cu. M	20 mg/cu. M
Ireland	Diphenylamine	10 mg/cu. M	20 mg/cu. M
Portugal	Diphenylamine	10 mg/cu. M	N/E
Slovenia	Diphenylamine	5 mg/cu. M	N/E
Spain	Diphenylamine	10 mg/cu. M	N/E
Sweden	Diphenylamine	4 mg/cu. M	12 mg/cu. M
Switzerland	Diphenylamine	10 mg/cu. M	N/E

**Other Exposure Limits**

Contains mineral oil. Under conditions which may generate mists, observe the OSHA PEL of 5 mg per cubic meter, ACGIH TWA of 5 mg per cubic meter.

**8.2 Exposure controls**

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Material should be handled in enclosed vessels and equipment, in which case general (mechanical) room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapors or gases can escape into the room air. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.

### Eye/face protection

Chemical goggles or faceshield.

### Skin protection

Avoid skin contact. Use nitrile or neoprene gloves. Replace gloves after 8 hours.

Long sleeve shirt is recommended. Wear either a chemical protective suit or apron when potential for contact with material exists. Use neoprene or nitrile rubber boots when necessary to avoid contaminating shoes. Do not wear rings, watches or similar apparel that could entrap the material and cause a skin reaction.

Launder contaminated clothing before reuse.

### Respiratory Protection

Use full face respirator with an organic vapor cartridge if the recommended exposure limit is exceeded.

### Hygiene Measures

Wash thoroughly after handling this product. Replace gloves after 8 hours.

### Environmental exposure controls

See section 6 for details.

Section 9	Physical and Chemical Properties
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### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	Amber liquid.
<b>Odour</b>	Mild
<b>Odour Threshold</b>	Not determined.
<b>pH</b>	Not determined.
<b>Melting / Freezing Point</b>	Not determined.
<b>Boiling Point</b>	Not determined.
<b>Boiling Point Range</b>	Not determined.
<b>Flash Point</b>	145 °C, 293 °F PMCC (Typical)
<b>Evaporation Rate</b>	Not determined.
<b>Flammability (solid,gas)</b>	Not applicable.
<b>Lower flammability or explosive limit</b>	Not determined.
<b>Upper flammability or explosive limit</b>	Not determined.
<b>Vapour Pressure</b>	Not determined.
<b>Vapour Density</b>	Not determined.
<b>Relative density</b>	0.95 (15.6 °C)
<b>Bulk Density</b>	7.93 Lb/gal, 0.95 Kg/L
<b>Water Solubility</b>	Insoluble.
<b>Other solubilities</b>	Not determined.
<b>Partition coefficient: n-octanol/water</b>	Not determined.
<b>Autoignition Point</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	456 Centistokes (25 °C) 135 Centistokes (40 °C) 9 Centistokes (100 °C)
<b>Explosive properties</b>	Material does not have explosive properties.
<b>Oxidising properties</b>	Material is a non-oxidising substance.

### 9.2 Other information

<b>Pour Point Temperature</b>	-24 °C, -11 °F
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*The above data are typical values and do not constitute a specification.*

Section 10	Stability and Reactivity
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### 10.1 Reactivity

Carefully review all information provided in sections 10.2 - 10.6.

### 10.2 Chemical stability

Material is normally stable at moderately elevated temperatures and pressures.

**10.3 Possibility of hazardous reactions**

Will not occur.

**10.4 Conditions to avoid**

Not determined.

**10.5 Incompatible materials**

Strong acids. Strong bases. Oxidizing agents.

**10.6 Hazardous decomposition products**

Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Under combustion conditions, oxides of the following elements will be formed: nitrogen.

<b>Section 11</b>	<b>Toxicological Information</b>
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**11.1 Information on toxicological effects****Acute toxicity****Oral**

The LD50 in rats is > 5000 mg/Kg. Based on data from components or similar materials.

**Dermal**

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.

**Inhalation**

Excessive inhalation exposure to diphenylamine may cause chemical asphyxiation due to the formation of methemoglobin. Symptoms may include headache, cyanosis, weakness, dizziness, anorexia, unconsciousness and death.

**Skin corrosion / irritation**

Severe skin irritant. Based on data from components or 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.

**Serious eye damage / irritation**

Weak to moderate eye irritant. Does not meet EU R36 criteria. Based on data from similar materials.

**Respiratory Irritation**

May cause nose, throat, and lung irritation. Based on data from components or similar materials. Exposure to a high concentration of vapor or mist may be irritating.

**Respiratory or skin sensitization****Skin**

May cause skin sensitization. Based on data from components or similar materials.

**Respiratory**

No data available to indicate product or components may be respiratory sensitizers.

**Germ cell mutagenicity**

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity**

This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.

**Reproductive Toxicity**

No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

There are conflicting reports in the literature concerning the teratogenicity of diphenylamine. However, because the predominant route of exposure was oral (via gavage or diet) and relatively high dose levels were administered in the studies where positive effects were observed, it would not seem to present a workplace hazard.

**STOT repeated exposure**

A two year feeding study in rats and dogs of diphenylamine demonstrated liver, kidney and blood cell damage. The effect was observed at levels as low as 100 ppm. A five month feeding study in rats of 1% diphenylamine produced renal cystic disease. A dose-dependent increase in Heinz body formation was evident during a 12 week study of 5 to 1000 ppm. The no effect level was at 10 ppm. Repeated-dose oral toxicity studies in rats using a component contained in this product revealed internal organ effects (i.e., liver and thyroid enlargement). These effects were considered adaptive and were reversible upon cessation of treatment.

**Other information**

No other health hazards known.

<b>Section 12</b>	<b>Ecological Information</b>
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**12.1 Toxicity****Freshwater fish**

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

**Freshwater invertebrates**

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

**Algae**

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Not determined.

**Saltwater fish**

Not determined.

**Saltwater invertebrates**

Not determined.

**Bacteria**

Not determined.

**12.2 Persistence and degradability**

Substance	Pct. (weight)	Test type	Duration (days)	Pct. degradation
Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	From 20 to 29.9 percent	Sturm	28	0
Diphenylamine	1.4%	Closed Bottle	28	26
Naphtha (petroleum), heavy aromatic	From 0.1 to 0.9 percent	Manometric Respirometry	28	58

**12.3 Bioaccumulative potential**

Substance	Pct. (weight)	Test type	Duration (days)	Log Kow or BCF
Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	From 20 to 29.9 percent	Bioconcentration Factor	42	3.2
Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	From 20 to 29.9 percent	Octanol-Water Coefficient	0.1	3.6
Diphenylamine	1.4%	Octanol-Water Coefficient	0.1	3.4
Naphtha (petroleum), heavy aromatic	From 0.1 to 0.9 percent	Octanol-Water Coefficient	0.1	3.1

**12.4 Mobility in soil**

Not applicable.

**12.5 Results of PBT and vPvB assessment**

Not Available

**12.6 Other adverse effects**

None known.

<b>Section 13</b>	<b>Disposal Considerations</b>
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**13.1 Waste treatment methods**

All disposal practices must be in accordance with local, regional, national and international regulations. Do not dump into any sweers, on the ground, or into any body of water. Recycle as much af the recoverable product as possible. Do not dispose in landfill.

Dispose of packaging or containers in accordance with local, regional, national and international regulations.

<b>Section 14</b>	<b>Transport Information</b>
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**14.1 UN number**

<b>ADR/RID</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IMDG</b>	Not regulated

**14.2 UN proper shipping name**

<b>ADR/RID</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IMDG</b>	Not regulated

**14.3 Transport hazard class(es)**

<b>ADR/RID</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IMDG</b>	Not regulated

**14.4 Packing group**

<b>ADR/RID</b>	Not regulated
<b>ICAO</b>	Not regulated
<b>IMDG</b>	Not regulated

**14.5 Environmental hazards**

<b>ADR/RID</b>	Not applicable.
<b>ICAO</b>	Not applicable.
<b>IMDG</b>	Not applicable.

**14.6 Special precautions for users**

Review classification requirements before shipping materials at elevated temperatures.

**14.7 Transport in bulk according to Annex II of Marpol 73/78 and the IBC code**

Not determined.

<b>Section 15</b>	<b>Regulatory Information</b>
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**15.1 Safety, health and environment regulations / legislation specific for the substance or mixture****Global Chemical Inventories**

<b>Australia</b>	All components are in compliance with chemical notification requirements in Australia.
<b>Canada</b>	All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List.
<b>China</b>	All components of this product are listed on the Inventory of Existing Chemical Substances in China.
<b>EU</b>	All components comply with the EU 7th Amendment and are approved for EU sales. Lubrizol must maintain records of all imports of this product into the EU. Third party importers are asked to report every import to The Lubrizol PSCD Manager (Europe), Hazelwood, Derby DE56 1QN, UK.
<b>Japan</b>	All components are in compliance with the Chemical Substances Control Law of Japan.
<b>Korea</b>	All components are in compliance in Korea.
<b>New Zealand</b>	All components are in compliance with chemical notification requirements in New Zealand.
<b>Philippines</b>	All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969).
<b>Switzerland</b>	All components are in compliance with the Environmentally Hazardous Substance Ordinance in Switzerland. Lubrizol must maintain records of all imports of this product into Switzerland. Third party importers are asked to report every import to The Lubrizol PSCD Manager (Europe), Hazelwood, Derby DE56 1QN, UK.
<b>Taiwan</b>	All components of this product are listed on the Taiwan inventory.
<b>USA</b>	All components of this material are on the US TSCA Inventory or are exempt.

**German water hazard classes**

WGK = 2 according to the Water Hazardous Directive, VwVwS, dated May 17, 1999.

**15.2 Chemical safety assessment**

No chemical safety assessment has been carried out.

<b>Section 16</b>	<b>Other Information</b>
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**Created by**

Product Safety and Compliance Department (440-943-1200)

**Created Date**

16 December 2010

**Revision date**

02 September 2011

**SDS No.**

21093111-1509719-4028131-102103

**HMIS Codes**

Health	Fire	Reactivity
2*	1	0

**Relevant R Phrases**

- R23/24/25 -- Toxic by inhalation, in contact with skin and if swallowed.
- R33 -- Danger of cumulative effects.
- R36/38 -- Irritating to eyes and skin.
- R38 -- Irritating to skin.
- R43 -- May cause sensitisation by skin contact.
- R50/53 -- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R51/53 -- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R52/53 -- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R53 -- May cause long-term adverse effects in aquatic environment.
- R65 -- Harmful: may cause lung damage if swallowed.

**Relevant hazard phrases**

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- H226 - Flammable liquid and vapor.
- H301 - Toxic if swallowed.
- H304 - May be fatal if swallowed and enters airways.
- H311 - Toxic in contact with skin.
- H315 - Causes skin irritation.
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H331 - Toxic if inhaled.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H400 - Very toxic to aquatic life.
- H410 - Very toxic to aquatic life with long lasting effects.
- H411 - Toxic to aquatic life with long lasting effects.
- H413 - May cause long lasting harmful effects to aquatic life.

### Revision Indicators

Section: 15 Taiwan

Changed: 2 September 2011

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