



## SAFETY DATA SHEET

### WARREN OIL COMPANY, INC.

*Product:* **CARB DEFENDER FUEL ADDITIVE**

Date of Preparation: May 29, 2013

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#### SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

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*Manufacturer:* Warren Oil Company, Inc.  
PO Box 1507  
Dunn, NC 28334

**CHEMTREC NUMBER**  
Domestic: 800-424-9300  
International: 703-527-3887

#### **EMERGENCY TELEPHONE NUMBERS:**

Warren Oil Company, Inc. (910) 892-6456 Normal Business Hours  
(800) 779-6456 After Business Hours

*Product Trade Name:* **CARB DEFENDER FUEL ADDITIVE**  
*CAS No.:* Not applicable for mixtures  
*Synonyms:* None  
*Product Type:* Gasoline Additive

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#### SECTION 2: HAZARD IDENTIFICATION

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**Appearance:** Clear liquid  
**Odor:** Aromatic hydrocarbon  
**Principal Hazards:** DANGER. Harmful or fatal if swallowed. Skin irritant. Combustible.  
**Target Organs:** Central nervous system, Liver, Thyroid

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#### SECTION 3: COMPOSITION/INFORMATION AND INGREDIENTS

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##### **Hazardous Ingredients**

<b>Comp</b>	<b>CAS No.</b>	<b>Percentage (by wt.)</b>	<b>Carcinogen</b>
Hydrotreated Heavy Naphtha	64742-48-9	From 40 to 50 percent	N/E
Petroleum naphtha	64742-47-8	From 20 to 30 percent	N/E
Polyether amine	Confidential	From 15 to 25 percent	N/E
Alkylated phenol	Confidential	From 3 to 8 percent	N/E
Diphenylamine	122-39-4	From 0.1 to 0.9 percent	N/E
Ethyl benzene	100-41-4	<0.1%	IARC Suspect Carcinogen

N/E – None established

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#### SECTION 4: FIRST AID MEASURES

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**Oral:** DO NOT induce vomiting. Immediately call a poison center or doctor. Aspiration of material due to vomiting can cause chemical pneumonitis which can be fatal. If vomiting occurs naturally, the casualty should lean forward to reduce the risk of aspiration.

**Inhalation:** Remove exposed person to fresh air if adverse effects are observed. If breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. Call a poison center or doctor if exposed or you feel unwell.

**Skin Contact:** Wash with soap and water. Immediately remove contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

**Eye Contact:** 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.

**Additional Information:** If exposed or concerned, get medical attention.

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#### SECTION 5: FIRE-FIGHTING MEASURES

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**Flash Point:** 68°C, 154.4°F PMCC (Typical)

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

**Fire-Fighting Procedures:** Wear full protective fire gear including self-containing breathing apparatus operated in the positive pressure mode with full facepiece, coat, pants, gloves and boots. Water may cause splattering.

**Unusual Fire & Explosive Hazards:** 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.

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#### SECTION 6: ACCIDENTAL RELEASE MEASURES

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**Spill Procedures:** Evacuate all non-essential personnel. Personal Protection Equipment must be worn. Avoid skin contact. Use skin protection. See Personal Protection Section for additional PPE recommendations. Take precautions to avoid release to the environment. Eliminate all ignition sources if safe to do so. 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. 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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#### SECTION 7: HANDLING AND STORAGE

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**Pumping Temperature:** Ambient

**Maximum Handling Temperature:** 50°C, 122°F

**Handling Procedures:** Keep away from potential sources of ignition. 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 skin contact. 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:**  
**Storage Procedures:**

45°C, 113°F

Do not store near potential sources of ignition. Take precautions to avoid release to the environment. Store in a well-ventilated place. Keep cool. Store locked up. See Section 10 for incompatible materials.

**Maximum Loading Temperature:**

50°C, 122°F

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**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**  
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**Exposure Limits**

Comp	Exposure Guidelines					
	OSHA		ACGIH		Other	
	TWA	STEL	TWA	STEL	TWA	STEL
Petroleum naphtha	N/E	N/E	N/E	N/E	1200 mg/cu. M (u)	N/E
Diphenylamine	N/E	N/E	10 mg/cu. M	N/E	N/E	N/E
Ethyl benzene	100 ppm	N/E	20 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:**  
**Engineering Controls:**

None known.  
Use material in well ventilated area only. Additional ventilation or exhaust may be required to maintain air concentrations below recommended exposure limits.

**Gloves Procedures:**  
**Eye Protection:**

Use nitrile or neoprene gloves.  
Safety glasses. If potential for splash or mist exists, wear chemical goggles or face shield.

**Respiratory Protection:**

Use NIOSH/MSHA approved respirator with a combination organic vapor and high efficiency filter cartridge if recommended exposure limit is exceeded. Use self-contained breathing apparatus for entry into confined spaces, 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 are necessary to minimize contact. Wear either a chemical protective suit or apron when potential for contact with material exists. Launder contaminated clothing before reuse.

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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<b>Flash Point:</b>	68°C, 154.4°F PMCC (Typical)
<b>Upper Flammable Limit:</b>	Not Determined
<b>Lower Flammable Limit:</b>	Not Determined
<b>Autoignition Point:</b>	Not Determined
<b>Explosion Data:</b>	Material does not have explosive properties
<b>Vapor Pressure:</b>	Not Determined
<b>pH:</b>	Not Determined
<b>Specific Gravity:</b>	0.85
<b>Bulk Density:</b>	7.04 Lb/gal
<b>Water Solubility:</b>	Insoluble
<b>Percent Solid:</b>	Not Determined
<b>Percent Volatile:</b>	Not Determined
<b>Volatile Organic Compound:</b>	Not Determined
<b>Vapor Density:</b>	Not Determined
<b>Evaporation Rate:</b>	Not Determined
<b>Odor:</b>	Aromatic hydrocarbon
<b>Appearance:</b>	Clear liquid
<b>Viscosity:</b>	500 Centistokes (25°C) 13 Centistokes (40°C)
<b>Odor Threshold:</b>	Not Determined
<b>Boiling Point:</b>	Not Determined
<b>Pour Point Temperature:</b>	<-57°C, <-71°F
<b>Melting/Freezing Point:</b>	Not Determined

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

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**SECTION 10: STABILITY AND REACTIVITY**

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<b>Stability:</b>	Material is normally stable at moderately elevated temperatures and pressures.
<b>Decomposition Temperature:</b>	Not determined
<b>Incompatibility:</b>	Strong acids. Strong oxidizing agents.
<b>Polymerization:</b>	Will not occur.
<b>Thermal Decomposition:</b>	Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion. Ammonia may be formed on burning in limited air supply. Propylamine, polyalkylglycols, and aliphatic alcohols may also be released.
<b>Condition to Avoid:</b>	Not determined

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**SECTION 11: TOXICOLOGICAL INFORMATION**

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**-ACUTE EXPOSURE-**

<b>Eye Irritation:</b>	May cause eye irritation. Does not meet Canadian D2B or EU R36 criteria. Based on data from components or similar materials.
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<b>Skin Irritation:</b>	May cause slight skin irritation. Does not meet Canadian D2B or EU R38 criteria. 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.
<b>Respiratory Irritation:</b>	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. Breathing of vapor or mist may aggravate asthma and inflammatory or fibrotic pulmonary disease.
<b>Dermal Toxicity:</b>	The LD50 in rabbits is >2000mg/Kg. Based on data from components or similar materials.
<b>Inhalation Toxicity:</b>	High concentrations may cause headaches, dizziness, nausea, behavioral changes, weakness, drowsiness and stupor.
<b>Oral Toxicity:</b>	The LD50 in rats is >10,000mg/Kg. Based on data from components or similar materials. Swallowing this material causes severe irritation of the mouth, esophagus and stomach.
<b>Dermal Sensitization:</b>	No data available to indicate product or components may be a skin sensitizer.
<b>Inhalation Sensitization:</b>	No data available to indicate product or components may be respiratory sensitizers.

**-CHRONIC EXPOSURE-**

<b>Chronic Toxicity:</b>	Repeated overexposure to petroleum naphtha can cause nervous system damage. 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.
<b>Carcinogenicity:</b>	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.
<b>Mutagenicity:</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Reproductive Toxicity:</b>	No data available to indicate product or components at greater than 0.1% that may cause reproductive toxicity.
<b>Teratogenicity:</b>	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.

**-ADDITIONAL INFORMATION-**

**Other:** No other health hazards known.

**SECTION 12: ECOLOGICAL INFORMATION**

**-ENVIRONMENTAL TOXICITY-**

<b>Freshwater Fish Toxicity:</b>	The acute LC50 is 1-10 mg/L based on component data
<b>Freshwater Invertebrates Toxicity:</b>	The acute EC50 is 10-100 mg/L based on component data
<b>Algal Inhibition:</b>	The acute EC50 is 10-100 mg/L based on component data

<b>Saltwater Fish Toxicity:</b>	Not determined
<b>Saltwater Invertebrates Toxicity:</b>	Not determined
<b>Bacteria Toxicity:</b>	Not determined
<b>Miscellaneous Toxicity:</b>	Not determined

**-ENVIRONMENTAL FATE-**

<b>Biodegradation:</b>	Not determined
<b>Bioaccumulation:</b>	Not determined
<b>Soil Mobility:</b>	Not determined

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**SECTION 13: DISPOSAL CONSIDERATIONS**

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**Waste Disposal:** This material, if discarded, is a hazardous waste under RCRA Regulation 40 CFR 261.0.00010% 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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**SECTION 14: TRANSPORTATION INFORMATION**

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<b>ICAO/IATA I</b>	Not regulated
<b>ICAO/IATA II</b>	UN3082 Environmentally hazardous substance liquid, n.o.s. (Diphenylamine, Polyether amine), 9, III, Marine Pollutant (Diphenylamine, Polyether amine)
<b>IMDG</b>	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Diphenylamine, Polyether amine), 9, III, Marine Pollutant (Diphenylamine, Polyether amine)
<b>IMDG EMS Fire</b>	F-A
<b>IMDG EMS Spill</b>	S-F
<b>IMDG MFAG</b>	None
<b>MARPOL Annex II</b>	Not determined
<b>USCG Compatibility</b>	Not determined
<b>U.S. DOT Bulk</b>	UN1268 Petroleum distillates, n.o.s. Combustible Liquid, III, Marine Pollutant (Diphenylamine, Polyether amine), RQ (Xylene)
<b>DOT NAERG</b>	128
<b>U.S. DOT (Intermediate)</b>	UN1268 Petroleum distillates, n.o.s. Combustible Liquid, III, Marine Pollutant (Diphenylamine, Polyether amine), RQ (Xylene)
<b>U.S. DOT Intermediate NAERG</b>	128
<b>U.S. DOT Non-Bulk</b>	Not regulated
<b>U.S. DOT Non-Bulk NAERG</b>	Not applicable
<b>Canada</b>	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Diphenylamine, Polyether amine), 9, III, Marine Pollutant (Diphenylamine, Polyether amine)
<b>Mexico</b>	UN3082 Environmentally hazardous substance, liquid, n.o.s. (Diphenylamine, Polyether amine), 9, III, Marine Pollutant (Diphenylamine, Polyether amine)
<b>Bulk Quantity</b>	85000 KG, 187391 lbs.
<b>Intermediate Quantity</b>	11000 KG, 24251 lbs.
<b>Non-Bulk Quantity</b>	400 KG, 882 lbs.

*Review classification requirements before shipping materials at elevated temperatures.*

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**SECTION 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-). Section 5E (Alkylated phenol). May be subject to export notification under TSCA Section 12(b).

**-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** 0.1% Ethylbenzene, CAS no. 100-41-4

**SARA 311 Classification**

Acute Hazard	No
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	21134	Lbs.	9586	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: <1 ppm Benzene, CAS no. 71-43-2 4 ppm Naphthalene, CAS no. 91-20-3 0.005% Toluene, CAS no. 108-88-3 0.119% Ethylbenzene, CAS no. 100-41-4

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**SECTION 16: OTHER INFORMATION**  
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**US NFPA Codes**

Health	Fire	Reactivity	Special
1	2	0	N/E

(N/E) – None established

**HMIS Codes**

Health	Fire	Reactivity
1*	2	0

**Precautionary Labels**

Warning.

- Harmful if inhaled
- Combustible liquid
- May cause internal organ effects based on studies with laboratory animals
- May cause eye irritation
- May cause skin irritation
- May cause respiratory tract irritation

**THIS INFORMATION RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED AND MAY NOT BE VALID FOR SUCH MATERIAL USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. SUCH**

**INFORMATION IS TO THE BEST OF THIS COMPANY'S KNOWLEDGE AND BELIEVED ACCURATE AND RELIABLE AS OF THE DATE INDICATED. HOWEVER, NO REPRESENTATION, WARRANTY OR GUARANTEE IS MADE AS TO THE ACCURACY, RELIABILITY OR COMPLETENESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY HIMSELF AS TO THE SUITABLENESS AND COMPLETENESS OF SUCH INFORMATION FOR HIS OWN PARTICULAR USE.**