

# Material Safety Data Sheet

Issuing Date 1-JAN-2013

Revision Date 28-Dec-2012

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** Rugged DEF  
**Recommended Use** Nox Reducing Agent

### Supplier Address

Colorado Petroleum  
5590 HIGH ST, DENVER, CO, 80216  
US  
Phone:3032940302  
Fax:303-294-9128  
Contact: Kathleen Thompson  
Contact Phone:303-294-0302  
Emergency Phone: 3032940302

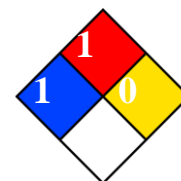
**Emergency Health & Safety Number** Chemtrec 1-800-424-9300 (24 hours)

## 2. HAZARDS IDENTIFICATION

**CAUTION!**

### NFPA Emergency Overview

This material is not considered hazardous according to OSHA criteria



**Appearance** Red brown      **Physical State** Liquid.      **Odor** No information available

### Potential Health Effects

**Principle Routes of Exposure** Inhalation. Skin contact. Eye contact.

### Acute Toxicity

#### Eyes

May cause irritation.

#### Skin

Prolonged skin contact may defat the skin and produce dermatitis.

#### Inhalation

Inhalation of vapors in high concentration may cause irritation of respiratory system.

#### Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Potential for aspiration if swallowed. Aspiration may cause pulmonary edema and pneumonitis.

### Chronic Effects

N/A

### Aggravated Medical

Skin disorders.

### Conditions

### Environmental Hazard

See Section 12 for additional Ecological Information.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	CONCENTRATION *
Lubricant Base Oil (PETROLEUM)	VARIOUS	>92

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Additives	Proprietary Trade Secret	< 08
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- All concentrations are a percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume

#### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if symptoms occur
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If symptoms persist, call a physician.
<b>Inhalation</b>	Move to fresh air. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Call a physician or Poison Control Center immediately. Do NOT induce vomiting.
<b>Notes to Physician</b>	Treat symptomatically. Aspiration hazard.

#### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Combustible material: may burn but does not ignite readily.
<b>Flash Point</b>	400° F Minimum (COC)
<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Uniform Fire Code</b>	<ul style="list-style-type: none"> <li>• Combustible Liquid: III-B</li> </ul>
<b>Hazardous Combustion Products</b>	Carbon oxides.
<b><u>Explosion Data</u></b>	
<b>Sensitivity to Mechanical Impact</b>	No.
<b>Sensitivity to Static Discharge</b>	No.

#### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

(0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

**NFPA**                      **Health Hazard 1**                      **Flammability 1**                      **Stability 0**                      **Physical and Chemical Hazards 0**

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing.
<b>Environmental Precautions</b>	Refer to protective measures listed in Sections 7 and 8.
<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Cleaning Up</b>	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly.

#### 7. HANDLING AND STORAGE

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<b>Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Take precautionary measures against static discharges.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering Measures</b>	Showers Eyewash stations Ventilation systems
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Tightly fitting safety glasses.
<b>Skin and Body Protection</b>	Wear protective gloves/clothing.
<b>Respiratory Protection</b>	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Amber	<b>Odor</b>	No information available.
<b>Odor Threshold pH</b>	No information available. UNKNOWN	<b>Physical State</b>	Liquid
<b>Flash Point</b>	400° F Minimum (COC).	<b>Autoignition Temperature</b>	No information available
<b>Decomposition Temperature</b>	No information available	<b>Boiling Point/Range</b>	No information available
<b>Melting Point/Range</b>	No information available	<b>Explosion Limits</b>	No information available
<b>Flammability Limits in Air</b>	No information available	<b>Solubility</b>	<b>No information available</b>
<b>Water Solubility</b>	Insoluble in water.	<b>Vapor Pressure</b>	<b>No data available</b>
<b>Evaporation Rate</b>	No information available	<b>VOC Content (%)</b>	<b>0.1</b>
<b>Vapor Density</b>	No data available		
<b>Partition Coefficient: n-octanol/water</b>			

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions.
<b>Incompatible Products</b>	Oxidizing agents.
<b>Conditions to Avoid</b>	Keep away from open flames, hot surfaces and sources of ignition.
<b>Hazardous Decomposition Products</b>	Carbon oxides.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### **Product Information**

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on information from similar products, the ingredients, technical literature, and/or professional experience. Continuous long-term contact with petroleum-based products has caused cancer in animal tests. In case of contact, wash exposed skin thoroughly with soap and water or use waterless hand cleaners to remove product from skin. Do not use gasoline, thinners, or solvents. Wear protective clothing and impervious gloves when working with motor oils and diesel fuel additives. Remove soiled/soaked clothing, including shoes, and thoroughly clean and dry before reuse. NTP, IARC, or OSHA identifies no component of this product as a carcinogen.

## 12. ECOLOGICAL INFORMATION

**Toxicity:** All acute aquatic toxicity studies on samples of lubricant base oils show acute toxicity values greater than 100 mg/L for invertebrates, algae and fish. These tests were carried out on water accommodated fractions and the results are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon compositions. Classification: No classified hazards.

**Persistence and Degradability:** The hydrocarbons in this material are not readily biodegradable, but since they can be degraded by microorganisms, they are regarded as inherently biodegradable.

**Bioaccumulative Potential:** Log Kow values measured for the hydrocarbon components of this material are greater than 5.3, and therefore regarded as having the potential to bioaccumulate. In practice, metabolic processes may reduce bioconcentration.

**Mobility in Soil:** Volatilization to air is not expected to be a significant fate process due to the low vapor pressure of this material. In water, base oils will float and spread over the surface at a rate dependent upon viscosity. There will be significant removal of hydrocarbons from the water by sediment adsorption. In soil and sediment, hydrocarbon components will show low mobility with adsorption to sediments being the predominant physical process. The main fate process is expected to be slow biodegradation of the hydrocarbon constituents in soil and sediment.

**Other Adverse Effects:** None anticipated.

**13. DISPOSAL CONSIDERATIONS****Waste Disposal Methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

**Contaminated Packaging**

Dispose of in accordance with local regulations.

**California Hazardous Waste Codes****14. TRANSPORT INFORMATION****U.S. Department of Transportation (DOT)**

**Shipping Description: Not regulated**

**Note: If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil)**

**International Maritime Dangerous Goods (IMDG)**

**Shipping Description: Not regulated**

**Note: U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25.**

**15. REGULATORY INFORMATION****CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):**

This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

**CERCLA/SARA - Section 311/312 (Title III Hazard Categories)**

**Acute Health:** No  
**Chronic Health:** No  
**Fire Hazard:** No  
**Pressure Hazard:** No  
**Reactive Hazard:** No

**CERCLA/SARA - Section 313 and 40 CFR 372:**

This material does not contain chemicals subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372:

**EPA (CERCLA) Reportable Quantity (in pounds):**

This material does not contain any chemicals with CERCLA Reportable Quantities.

**California Proposition 65:** This material does not contain any chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm at concentrations that trigger the warning requirements of California Proposition 65.

**International Hazard Classification:** N/A

**GHS Classification:** H316 may cause mild skin irritation

**Canada:** N/A

**WHMIS Hazard Class:** None

**National Chemical Inventories**

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA

All components are either on the DSL, or are exempt from DSL listing requirements.

**U.S. Export Control Classification Number:** EAR99

**16. OTHER INFORMATION**

**Issuing Date** 1-JAN-2013  
**Revision Date** 28-Dec-2012  
**Revision Note** Format Change by Tim Hourigan (CPPC)

**General Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text

**End of Safety Data Sheet**