

## MATERIAL SAFETY DATA SHEET

PRODUCT TRADE NAME: **RED LINE DIESEL FUEL CATALYST & DIESEL FUEL CATALYST WINTERIZED**

RPRODUCT TYPE: Diesel fuel combustion improver

REVISION DATE: August 15, 2005

CHEMICAL NAME: Mixture

NFPA CODE: Health: 2 Fire: 2 Reactivity: 0

### SECTION 1 - HAZARDOUS INGREDIENTS

1-2% Xylene - OSHA PEL:100ppm, OSHA STEL 150ppm, ACGIH TLV:100ppm, ACGIH STEL:150ppm  
CAS #1330-20-7

Aliphatic Naphtha - TLV = 100 ppm CAS #64742-88-7

3-4.9% Hydroxyethylated aminoethylamide - TWA- None established.

Octyl Nitrate- Supplier recommended TWA = 10ppm CAS #27247-96-7

### SECTION 2 - FIRE AND EXPLOSION HAZARDS

FLASH POINT: 180°F (82°C)  
UPPER FLAMMABLE LIMIT: Not Determined.  
LOWER FLAMMABLE LIMIT: Not Determined.  
EXTINGUISHING MEDIA: CO<sub>2</sub>, dry chemical, foam.

SPECIAL FIREFIGHTING PROCEDURES: Wear self-contained breathing apparatus with full face piece. Material will float on water.

UNUSUAL FIRE & EXPLOSION HAZARDS: Toxic fumes may be evolved on burning or exposure to heat. Vapors are heavier than air. Container may rupture on heating. May evolve nitrogen oxides under fire conditions. 2-Ethylhexyl nitrate may undergo a self-accelerating exothermic reaction if heated above 212°F (100°C).

### SECTION 3 - HEALTH HAZARD DATA

ORAL TOXICITY: LD50 > 5000 mg/kg in rats. Based on data from components.  
EYE IRRITATION: May cause eye irritation.  
SKIN IRRITATION: May cause skin irritation. Prolonged exposure may cause dermatitis.  
DERMAL TOXICITY: LD50 > 2000 mg/kg in rabbits. Based on data from components.  
INHALATION TOXICITY: LC50 (1Hr) in rats is 200 -2000 ppm. TOXIC. High concentrations may cause headaches, dizziness, weakness, and nausea.  
CHRONIC TOXICITY: Xylene has been found to cause cardiac, liver, and kidney effects, anemia and eye damage in laboratory animals.  
OTHER: None.  
TLV: None established. Oil mist TLV 5mg/m<sup>3</sup>.

### FIRST AID PROCEDURES

SKIN: Wash well with soap and water. See a physician if irritation persists.  
EYE: Flush well with water for at least 15 minutes.  
INHALATION: Remove to fresh air. See a physician if irritaiton persists. If breathing has stopped, apply artificial respiration.  
ORAL: Call a physician. Do not induce vomiting. If conscious, give two glasses of water.  
ADDITIONAL: Note to physician. Treat symptomatically.

### SECTION 4 - SPECIAL PROTECTION INFORMATION

VENTILATION PROCEDURE: Mechanical ventilation recommended.  
GLOVES PROTECTION: Neoprene or nitrile rubber gloves recommended.  
EYE PROTECTION: Safety glasses recommended.  
OTHER PROTECTION: NIOSH-approved organic vapor respirator if TLV exceeded. Long-sleeved shirt.

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SECTION 5 - PHYSICAL DATA

VAPOR PRESSURE: < 1mm Hg @ 20°C  
SPECIFIC GRAVITY: 0.9  
VISCOSITY: >13cSt (mm<sup>2</sup>/sec)@ 38°C  
WATER SOLUBILITY: Insoluble  
PERCENT VOLATILE: Not Determined.  
VAPOR DENSITY: Not Determined.  
EVAPORATION RATE: Not Determined.  
ODOR: Strong.  
APPEARANCE: Reddish-brown liquid.

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SECTION 6 - STABILITY

STABILITY: Material can be unstable at elevated temperatures.  
INCOMPATIBILITY: Strong oxidizing agents.  
POLYMERIZATION: Will not occur.  
THERMAL DECOMPOSITION: Oxides of carbon, hydrogen, and nitrogen.

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SPILL OR LEAK PROCEDURES

SPILL PROCEDURES: Ventilate area. Remove sources of ignition. Wear self-contained breathing apparatus, rubber boots, suit, and gloves. Prevent entry into sewers and waterways. Pick up free liquid for recycle/disposal. Absorb small amounts on inert material for disposal.

WASTE DISPOSAL: If disposed of, this material is believed to be a hazardous waste under RCRA due to toxicity. Waste management should be in compliance with federal, state, and local laws. If discarding this material, consider the possible relevance of the following chemicals and the treatment standards for the associated U.S. EPA RCRA Hazardous Waste Numbers:  
0.0002% Benzene CAS No: 71-43-2, D018  
1% Xylene CAS No: 1330-20-7, F003.

CERCLA REPORTING: Must report accidental spills of greater than 12,700 gallons due to xylene.

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SPECIAL PRECAUTIONS

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TRANSPORTATION AND LABELING

DOT PROPER SHIPPING NAME: Not Applicable.  
DOT HAZARD CLASS: Not Applicable.  
DOT ID NUMBER (UN NO.): Not Applicable.  
IMO CLASS: Not Applicable.  
EPA HAZARDOUS SUBSTANCES: Is not known to contain greater than 1% of any SARA Extremely Hazardous Substance.  
SARA SECTION 313: 2.2% Xylene CAS #1330-20-7  
U.S. TSCA INVENTORY: All components are included on the U.S. TSCA Inventory.  
CANADIAN CEPA: All components are in compliance with the Canadian Environmental Protection Act.  
California Proposition 65 Warning: This product may contain slight but detectable amounts of a chemical known to the State of California to cause cancer.  
PRECAUTIONARY LABELS: Combustible. Harmful if inhaled. Causes eye irritation. Causes skin irritation. Causes respiratory tract irritation. Harmful if absorbed through skin. May cause allergic skin reaction. May cause chronic health effects based on data with laboratory animals.

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