

MATERIAL SAFETY DATA SHEET

DATE: 04.15.01

SECTION I – SOURCE AND NOMENCLATURE

Manufacturer's Name

LuBoron, LLC

Address

1147 River Road
Charlottesville, VA 22901

Emergency Telephone No.

(866) 582-6766

Chemical Family

HYDROCARBONS

Chemical Formula: Mixture

Trade Name and Synonyms

LOW SULFUR DIESEL FUEL ADDITIVE

Chemical Name: Mixture/Diesel Fuel & Boric Acid

SECTION II – OSHA REGULATED INGREDIENTS

CAS Regulation No: Mixture ----- Product B=Number LSDFA

Product and Components are entered on EPA's TSCA Inventory.

This product is in U.S. commerce and is listed in the Toxic Substances Control Act (TSCA) Inventory of Chemicals; hence it may be subject to applicable TSCA provisions and restrictions.

<u>Ingredients</u>	<u>CAS No.</u>	<u>%by Wt.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
Paraffinic hydrocarbons	64742-96-7	>55	NE	NE
Olefinic Hydrocarbons	Various	<5	NE	NE
Aromatic hydrocarbons	Various	>27	NE	NE
May include Benzene	71-43-2	<50 ppm	*1ppm	10 ppm
Sulfur	7704-34-9	<80 ppm	NE	NE
Boric-acid	<5,000 ppm		NE	NE

* Work operations exempted by the Benzene Standard, 29 CFR 1910.1028, will have a 10 ppm 8-hour TWA.

SECTION III – PHYSICAL DATA

Boiling Point: 340-690F (171-366C)

Vapor Pressure: Not Established

Vapor Density: (Air=1): >1

Viscosity: 2.8cSt @ 104 F (40c)

Evaporation Rate: (Butyl Acetate=1) A<1

Percent Volatile by Volume: 100

Solubility in Water: Negligible

Specific Gravity: (H2O=1): 0.85 @ 60/60F (16/16C)

Appearance/Odor

PALE YELLOW LIQUID/MILD ODOR

SECTION IV – FIRE AND EXPLOSION DATA

Flash Point (Method Used): > 130F (>54C) (Estimated) Flammable Limits (% by Volume in Air): LEL – not established
UEL – not established

Fire Extinguishing Media

CO 2, DRY CHEMICAL, FOAM, OR CARBON DIOXIDE

Special Fire Fighting Procedures: Evacuate area of all unnecessary personnel. Shut off source, if possible. Use NIOSH/MSHA – approved, self-contained breathing apparatus and other protective equipment and/or garments described in Section IX if conditions warrant. Water fog or spray may be used to cool exposed containers and equipment. Do not spray water directly on fire – product will float and could be re-ignited on surface of water.

SECTION V – HEALTH HAZARD DATA

Recommended Exposure Limits: Not Established

Acute Effects of Overexposure:

Eyes: MAY CAUSE MILD IRRITATION, WITH STINGING AND REDNESS OF THE EYES.
 Skin: MAY CAUSE SEVERE IRRITATION. REPEATED OR PROLONGED CONTACT MAY CAUSE DEFATTING OF THE SKIN, RESULTING IN DERMATITIS.
 Inhalation: MAY CAUSE IRRITATION TO NOSE, THROAT, OR LUNGS, HEADACHE, NAUSEA, DIZZINESS, NERVOUSNESS MAY OCCUR.
 Ingestion: MAY CAUSE IRRITATION TO INTESTINES, MAY CAUSE HEADACHE, NAUSEA, UNCONSCIOUSNESS. IF SWALLOWED, MAY BE ASPIRATED, RESULTING IN INGLAMMATION AND POSSIBLE FLUID ACCUMULATION IN THE LUNGS.

Sub chronic and Chronic Effects of Overexposure: Combustion, a normal use of diesel fuel, results in an exhaust that has been associated with lung cancer in animals. There is a limited evidence to suggest an association between occupational exposure to diesel exhaust and lung cancer in humans.

Carbon monoxide inhalation may cause carboxyhemoglobinemia. Chronic exposure to carbon monoxide causes fatigue, poor memory, loss of sensation in fingers, visual disturbances, and insomnia. Carboxyhemoglobinemia is frequently misdiagnosed as flu.

Sensitive sub-population to the inhalation of carbon monoxide exist. Carbon monoxide displaces oxygen in the bloodstream and therefore can adversely effect people with pre-existing heart disease, pregnant women, and smokers.

Other Health Effects: No known applicable information.

Health Hazard Categories:

	Animal	Human		Animal	Human
Known Carcinogen	_____	_____	Toxic	_____	_____
Suspect Carcinogen	_____	_____	Mild Corrosive	_____	_____
Mutagen	_____	_____	Irritant	X	X
Teratogen	_____	_____	Target Organ Toxin	X	X
Allergic Sensitizer	_____	_____	Specify	Lung Aspiration Hazard	

Emergency and First-Aid Procedures

Eye: FLUSH EYES WITH RUNNING WATER FOR AT LEAST 15 MINUTES.
 IF IRRITATION OR ADVERSE SYMPTOMS DEVELOP, SEEK MEDICAL ATTENTION.

Skin: IMMEDIATELY WAS SKIN W/SOAP AND WATER FOR AT LEAST 15 MINUTES.
 IF IRRITATION OR ADVERSE SYMPTOMS DEVELOP, SEEK MEDICAL ATTENTION.

Inhalation: REMOVE FROM EXPOSURE. IF BREATHING IS DIFFICULT, GIVE OXYGEN IF BREATHING CEASES; ADMINISTER ARTIFICIAL RESPIRATION FOLLOWED BY OXYGEN. SEEK IMMEDIATE MEDICAL ATTENTION.

Ingestion: DO NOT INDUCE VOMITING, SEEK IMMEDIATE MEDICAL ATTENTION.

Note to Physician: Gastric lavage using a cuffed endotracheal tube may be performed at your discretion.

SECTION VI – HEALTH CLASSIFICATION

<input checked="" type="checkbox"/>	This product meets the following hazard definition(s) as defined by the occupational Safety and Health Hazard Communication Standard (29 CFR Section 1910.1200):					
<input checked="" type="checkbox"/>	Combustible Liquid	<input type="checkbox"/>	Flammable Aerosol	<input type="checkbox"/>	Oxidizer	
<input type="checkbox"/>	Compressed Gas	<input type="checkbox"/>	Explosive	<input type="checkbox"/>	Pyrophoric	
<input type="checkbox"/>	Flammable Gas	<input checked="" type="checkbox"/>	Health Hazard (Section V)	<input type="checkbox"/>	Unstable	
<input type="checkbox"/>	Flammable Liquid	<input type="checkbox"/>	Organic Peroxide	<input type="checkbox"/>	Water Reactive	
<input type="checkbox"/>	Flammable Solid					

Based on information presently available, this product does not meet any of the hazard definitions of 29 (Section 1910.1210.

Additional Comments; SARA 313: This product contains the following chemical or chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. (See Section 1)

SECTION VII – REACTIVITY DATA

Stability: STABLE

Conditions to Avoid: NOT ESTABLISHED

Incompatibility (Materials to Avoid): OXYGEN AND STRONG OXIDIZING AGENTS

Hazardous Polymerization: WILL NOT OCCUR

Conditions to Avoid: NOT ESTABLISHED

Hazardous Decomposition of Products: CARBON AND VARIOUS HYDROCARBONS FORMED WHEN BURNED

SECTION VIII – SPILL, LEAK, AND DISPOSAL PROCEDURES

Precautions Required if Material is Released or Spilled: Evacuate area of all unnecessary personnel. Wear protective equipment and/or garments described in Section IX if exposure conditions warrant. Shut off source, if possible, and contain spill. Protect from ignition. Keep out of water sources and sewers. Absorb in dry, inert material (sand, clay, etc.). Transfer to disposal drums using nonsparking equipment.

Water Disposal (Insure Conformity with all Applicable Disposal Regulations): Incinerate or place in permitted waste-management facility.

SECTION IX – HANDLING AND STORAGE PRECAUTIONS

Do not get in eyes, on skin, or on clothing. Avoid breathing vapors, mist, fume, or dust. Do not swallow. May be aspirated into lungs. Wear protective equipment and/or garments described in Section IX if exposure conditions warrant. Wash thoroughly after handling. Launder contaminated clothing before reuse. Use with adequate ventilation.

Keep away from heat, sparks, and flames. Store in well-ventilated area. Store in closed container. Bond and ground during transfer.

SECTION X – PERSONAL PROTECTION INFORMATION

Ventilation Requirements: USE ADEQUATE VENTILATION.

Protective Equipment

Eye: FOR SPLASH PROTECTION, USE CHEMICAL GOGGLES AND FACE SHIELD.
Skin: USE GLOVES RESISTANT TO THE MATERIAL BEING USED (i.e. NEOPRENE OR NITRILE RUBBER). USE PROTECTIVE GARMENTS TO PREVENT EXCESSIVE SKIN CONTACT.
Respirator: NOT GENERALLY REQUIRED UNLESS NEEDED TO PREVENT RESPIRATORY OF SPILL OR LEAK RESULTING IN UNKNOWN CONCENTRATION. USE NIOSH/MSHA – APPROVED SUPPLIED AIR RESPIRATOR.

NOTE: The Personal Protection Information shown above is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

SECTION XI – PROTECTION REQUIRED FOR WORKING ON CONTAMINATED EQUIPMENT

Contact immediate supervisor for specific instructions before work is initiated. Wear protective equipment and/or garments described in Section VIII if exposure conditions warrant.

SECTION XII – D.O.T. TRANSPORTATION

Shipping Name:	Diesel Fuel	Hazard Class:	3 (Flammable liquid)
ID Number:	NA 1993	Packing Group:	III
Marking:	Diesel Fuel 1993	Label:	None
Placard:	Flammable/ 1993	Hazardous Substance/RO:	NA
Shipping Description:	Diesel fuel, 3 (flammable liquid), NA 1993, PG III		
Packaging References	49 CFR 173,150,173,203,173.241		

NOTE: This product may be reclassified as a combustible liquid when shipped domestically by land only. If reclassified as a combustible liquid, this product is unregulated by D.O.T. when shipped in nonbulk quantities.

SECTION XIII – RCRA CLASSIFICATION

UNADULTERATED PRODUCT AS A WASTE

Ignitable (D001)

Prior to disposal, consult your environmental contact to determine if TLCP (Toxicity Characteristic Leaching Procedure, EPA, Test Method 1311) is required. Reference 40 CFR Part 261.

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