

# ADVANCED LUBRICATION TECHNOLOGY, INC.

## Material Safety Data Sheet

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2-CYCLE FUEL ADDITIVE

Catalog # MS-2C

3/25/06

ALT Inc.  
3000 SW 42<sup>nd</sup> Avenue  
Palm City, FL 34990

Emergency: INFOTRAC 1. 800.535.5053  
International: (collect) 1. 352.323.3500

### 1. Product Identification

Synonyms: GASOLINE & BORIC ACID  
Chemical Name: Mixture GASOLINE & boric Acid  
Chemical Family: Hydrocarbons  
Chemical Formula: Mixture  
CAS Reg. No.: Mixture  
Product No.: 2CYAD

Product and/or Components Entered on EPA's TSCA Inventory: YES

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.

### 2. Components

Ingredients	CAS Number	% By Wt.	OSHA PEL	ACGIH TLV
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	1 ppm*	10 ppm
Sulfur	7704-34-9	< 500 ppm	NE	NE
Boric acid		< 50,000ppm		

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

### 3. Personal Protection Information

Ventilation: Use adequate ventilation.

Respiratory Protection: Not generally required unless needed to prevent respiratory irritation. In case of spill or NIOSH/MSHA approved supplied air respirator.

Eye Protection: For splash protection, use chemical goggles and face shield.

Skin Protection: Use gloves resistant to the material being used (ie. neoprene or Nitrile rubber). Use protective garments to prevent excessive skin contact.

NOTE: Personal protection information shown in Section C 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.

#### 4. Handling and Storage Precautions

Do not get in eyes, on skin or on clothing. Avoid breathing vapors, mist, fume or dust. Do not swallow. Product may be aspirated into lungs. Wear protective equipment and/or garments described in Section C 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 this product in a well-ventilated area. Store this product in a closed container. Bond and ground this product during transfer.

#### 5. 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: OPEN FLAME, TEMPS OVER 120 F.

Hazardous Decomposition Products:

Carbon and sulfur oxides and various hydrocarbons formed when burned.

#### 6. Health Hazard Data

Recommended Exposure Limits:

Not Established

Acute Effects of Overexposure:

Eye: 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.  
Dermal LD50 for diesel fuel is > 5 ml/kg (rabbit).

Inhalation: May cause irritation to nose, throat or lungs. Headache, nausea, dizziness, unconsciousness may occur .CONSULT PHYSICIAN IMMEDIATELY.

Ingestion: May cause irritation to intestines. May cause headache, nausea, unconsciousness. If swallowed, may be aspirated resulting in inflammation and possible fluid accumulation in the lungs. Oral LD50 for diesel fuel is 9 ml/kg (rat).

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 limited evidence to suggest an association between occupational exposures 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-populations 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	___	___			
Known Carcinogen		___	___	Toxic	___	___
Suspect Carcinogen		___	___	Corrosive	___	___
Mutagen		___	___	Irritant	<u>  X  </u>	<u>  X  </u>
Teratogen		___	___	Target Organ Toxin	<u>  X  </u>	<u>  X  </u>
Allergic Sensitizer		___	___	Specify - Lung-Aspiration Hazard		
Highly Toxic		___	___			

**First Aid and Emergency Procedures:**

Eye: Flush eyes with running water for at least fifteen minutes. If irritation or adverse symptoms develop, seek medical attention.

Skin: Immediately wash skin with soap and water for at least fifteen 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.

**7. Physical Data**

Appearance: Pale yellow liquid  
Odor: Mild  
Boiling Point: 350 F.  
Vapor Pressure: Not Established  
Vapor Density (Air = 1): >1  
Solubility in Water: Negligible  
Specific Gravity (H2O = 1): 0.85 at 60/60F (16/16C)  
Percent Volatile by Volume: 100  
Evaporation Rate (Butyl Acetate=1): <1  
Viscosity: 2.8 cSt @ 104 F (40C)

**8. Fire and Explosion Data**

Flash Point (Method Used): > 200F ((Estimated)  
Flammable Limits (% by Volume in Air): LEL - Not Established  
UEL - Not Established  
Fire Extinguishing Media: Dry chemical, foam or carbon dioxide (CO2)  
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 C 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 reignited on surface of water.

Fire and Explosion Hazards: Carbon and sulfur oxides and various hydrocarbons formed when burned.

### 9. 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 C 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 non-sparking equipment.

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

### 10. DOT Transportation

Shipping Name:	Diesel fuel
Hazard Class:	3 (Flammable liquid)
ID Number:	NA 1993
Packing Group:	III
Marking:	GASOLINE MOTOR FUEL, 1993
Label:	None
Placard:	Flammable/1993
Hazardous Substance/RQ:	Not applicable
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 DOT when shipped in non-bulk quantities.

### 11. RCRA Classification

Unadulterated Product as a Waste Ignitable (D001): Prior to disposal, consult your environmental contact to determine if TCLP (Toxicity Characteristic Leaching Procedure, EPA Test Method 1311) is required. Reference 40 CFR Part 261.

### 12. Protection Required for Work on Contaminated Equipment

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

### 13. Hazard Classification

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 F)	<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 CFR Section 1910.1200.

#### **14. 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 B).

Benzene.

#### **OTHER INFORMATION**

**THIS INFORMATION IS BASED ON PRESENT KNOWLEDGE AND SHOULD BE USED ONLY AS A GUIDE. HOWEVER, THIS SHALL NOT CONSTITUTE A GUARANTEE FOR ANY SPECIFIC PRODUCT FEATURES. ADVANCED LUBRICATION TECHNOLOGY, INC. IS NOT HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCTS. MSDS HAS BEEN PREPARED IN ACCORDANCE WITH EU DIRECTIVE 67/548/EEC, 91/155/EEC AND OTHER EU COMMUNITY LEGISLATIONS IN FORCE.**