

MATERIAL SAFETY DATA SHEET

REVISION NO

REVISION DATE: 07/01/98

SECTION I – SOURCE AND NOMENCLATURE

Manufacturer's Name

LuBoron, LLC

Address

1147 River Road
Charlottesville, VA 22901

Emergency Telephone No.

(866) 582-6766

Product: ALT BORON/PTFE OUTDOOR GEAR LUBRICANT

Chemical Family: HYDROCARBON MIXTURE

Trade Name and Synonyms

OUTDOOR GEAR LUBRICANT

Product Category: LUBRICANT

SECTION II – HAZARDOUS INGREDIENTS

Chemical Name: HEXANE
C.A.S. #: 110-54-3 %W/W: 65% +/- 15%
Exposure Limits: 50 ppm ACGIH TWA, 500 ppm MSHA TWA, 50 ppm OSHA TWA, 50 ppm, CALOSHA TWA

SECTION III – PHYSICAL DATA

Approx. Boiling Point: <150 Deg.F. Vapor Pressure: <150 mm Hg @ 20 Deg.C. Vapor Density (air=1) : >3.0
Melting Point: **N/D Evaporation Rate (in-butyl acetate = 1): >9.0 pH: *N/A
Specific Gravity: 0.70-0.85 Solubility in Water: <5%
Odor: Strong solvent Appearance & Color: Milky white, waxy

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Approx. Flash Point: -20 Deg.F. Flammable (Explosive) Limits: Upper (LEL): 1.0%
Auto-ignition Temperature: *N/A Lower (UEL): 8.0%
Method Used: TCC

Extinguishing Media: Water spray (water as direct steam may be ineffective), carbon dioxide, foam, dry chemical, halon.

Fire-Fighting Equipment:

Self-contained breathing apparatus (SCBA) and protective clothing.

Fire-Fighting Procedures:

Self-contained breathing apparatus and protective clothing should be worn in fighting fires involving chemicals. Stop spills if it can be done without risk. Move undamaged containers from the fire area if it can be done without risk. Water spray may be useful in minimizing or dispersing vapors and cooling equipment exposed to heat and flames. Avoid spreading liquid with water used for cooling purposes. Avoid release of liquids into drains and sewage ports.

Fire and Explosion Hazards

This material is FLAMMABLE and may be ignited by heat, spark, flame, or other sources of ignition (e.g. static electricity, pilot lights, mechanical, or electrical equipment). Vapors may travel to a source of ignition where they may flash back or explode. Vapors are heavier than air and may accumulate in low areas. Vapor/air explosion is a hazard indoors/outdoors or in sewers. Sealed containers exposed to heat or flames can build pressure and may explode; cool in water spray to avoid possible vapor escape and container explosion.

SECTION V – HEALTH DATA

Toxicological Test Data

Rat, Oral D50:	Not established	Rabbit, Primary Eye Irritation:	Not established
Rat, Acute Oral Single Dose:	Not established	Rabbit, Primary Skin Irritation:	Not established
Ames Test:	*N/D	Maximization, Test, Guinea Pig:	*N/D

Notes: This product is a mixture for which no health-hazard data exist. The hazard communication standard requires that such a mixture be assumed to present at least the same health hazards as do components that constitute at least 1% of the mixture (0.1% for carcinogens), although OSHA has noted that the hazard of individual components may be alerted by including them in such a mixture.

Routes of Exposure

Ocular (Eyes):	Yes	Ingestion (Oral):	Yes
Dermal (Skin):	Yes	Inhalation (Breathing):	Yes

Exposure Effects

Eye:	May cause mild irritation. Direct contact w/liquid, vapors, or mist may cause stinging, tearing, redness.
Skin Contact:	May cause mild irritation. Prolonged or repeated contact may cause redness, burning, defatting, drying and cracking of the skin.
Skin Absorption:	Slight symptoms of toxicity are not anticipated by this route alone under normal condition of use.
Ingestion:	May cause mild nausea, abdominal cramps and diarrhea, nervous system depression (e.g. fatigue, loss of coordination, dizziness, drowsiness) if ingestion occurs in excessive quantities. ** Warning: see Aspiration Hazard
Inhalation:	Breathing high concentrations of vapor or mist may cause irritation to the mucus membranes, mouth, and throat. Nausea and signs of nervous-system depression (e.g. fatigue, loss of coordination, dizziness, drowsiness) may occur. Prolonged or repeated contact to vapors or mist may cause damage to the peripheral nerves. Respiratory systems associated with pre-existing lung disorders (e.g. asthma-like conditions) may be aggravated by exposure to this product. *** Warning: see Aspiration Hazard

First-Aid Procedures***

Eye Contact:	Remove contact lenses. Move victim away from exposure and into fresh air; flush immediately w/water continue flushing until irritation subsides. If irritation occurs or persists, call a physician or get other professional medical assistance. If material is hot, treat for thermal burns and take victim to hospital immediately.
Skin Contact:	Remove contaminated shoes/clothing and cleanse with mild soap and water. If irritation occurs or persists, call a physician or get other professional medical assistance. If material is hot, treat for thermal burns and take victim to hospital immediately.
Ingestion(swallowing):	***Warning: see Aspiration Hazard. Do not induce vomiting or give anything by mouth. This material can enter the lungs and cause severe lung damage. May act as a laxative. If victim is vomiting, lower head below knees to avoid aspiration. If victim is unconscious or drowsy, place on left side with head down. If possible, do not leave victim unattended. Seek immediate medical attention.
Inhalation(breathing):	Remove victim to fresh air. If symptoms persist, seek medical attention. If not breathing, give mouth-to-mouth respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Seek medical attention.
Comments:	Hexane has not been identified as a carcinogen by NPT, IRAC or OSHA. Pre-existing peripheral nerve disorders may be aggravated by exposure to this material. Persons with pre-existing heart disorders may be more susceptible to irregular heartbeats (arrhythmia) if exposed to high concentrations of this material. Reports have associated repeated and prolonged overexposure to solvents with permanent brain and nervous-system damage (sometimes referred to as solvent or painters syndrome). Intentional misuse, deliberately concentrating and inhaling this product may be harmful or fatal.

- N/A = Not Applicable
- N/D = Not Determined
- **ASPIRATION HAZARD: DO NOT INDUCE VOMITING!!** This product can enter the lungs during swallowing or vomiting and cause lung inflammation and damage.

SECTION VI – REACTIVITY DATA

Stability: Stable under normal conditions of storage.

Conditions to Avoid: Avoid all possible sources of ignition.

Hazardous Polymerization: None Known.

Incompatibility: Strong oxidizing or reducing agents; i.e. any strong acids or bases. Selected amines.

Hazardous Decomposition of Products: Upon combustion, carbon dioxide, and/or carbon monoxide.

SECTION VII – ENVIRONMENTAL, SPILL, AND DISPOSAL DATA

Environmental Toxicity:	*N/D – avoid any large disposals into sewage or drains. Dispose of all wastes in accordance with local, state, and federal regulations.
Fish Toxicity:	*N/D – Avoid contamination of any lakes, streams, waterways, and other aquifers.
Spills - Small:	Caution – floor may become slippery. Control spill, mop or wipe up with towels.
Spills – Large:	Caution – floor may become slippery. Control spill with diking and barriers (sand, earth, absorbent, etc.). Transfer liquids and solids separately to a container for recovery or disposal. Keep spills out of sewers and open bodies of water. Dispose of all wastes in accordance with local, state, and federal regulations.
Container Disposal:	Triple rinse all containers and dispose of all rinse waste and solid wastes in accordance with local, state, and federal regulations.

SECTION VIII – ROUTINE AND SPECIAL HANDLING INFORMATION

Ventilation Requirements

AVOID STORAGE NEAR OPEN FLAME OR OTHER SOURCES OF IGNITION.

Protective Equipment

Eye: Use proper protection; splash-proof safety glasses as a minimum.

Skin: Depending on length and degree of exposure, gloves impermeable to the material handled are advised to prevent skin contact and possible irritation. Impervious clothing should be worn as needed.

Respiratory: If airborne concentrations exceed established exposure limits (see Section II), use a supplied air respirator. Do not use a chemical – cartridge respirator.

Ventilation: Ventilation practices should be adequate to maintain airborne concentrations below the established exposure limits (see Section II). Where explosive mixtures may be present, electrical systems safe for such locations must be used.

Other: No special equipment deemed necessary under normal usage.

SECTION IX – SPECIAL PRECAUTIONS

Precautions in Storage and Handling

Keep containers tightly closed and store upright in clean, dry area. Protect from freezing and excessive heat conditions, direct sunlight, hot metal surfaces, and all sources of ignition. Post area "NO SMOKING OR OPEN FLAME."

This data is offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is hereby made. The recommended hygiene and safe-handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.