

**MATERIAL SAFETY DATA SHEET**  
**COPPER BRAKE LUBE (BC-L) and ECTO-LUBE Synthetic Brake Lube (BS-L)**  
 6/20/05

**SECTION I—MANUFACTURER**

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**SECTION II—PRODUCTS**

<u>Stock Number</u>	<u>Product Name on Label</u>	<u>Numbers of Ingredients in Product</u>	<u>HMIS RATING</u>			<u>Appearance and Odor</u>	<u>Solubility Wt.% in Water</u>	<u>Volatile Volume %</u>
			<u>H</u>	<u>F</u>	<u>R</u>			
BC-L	Copper Brake Lube	1,3,4	1	0	0	Copper grease, oily	<1	NA
BS-L	Ecto-Lube Synthetic Brake Lube	2,5,6	1	0	0	Green grease, oily	<1	NA

**SECTION III—HAZARDOUS INGREDIENTS**

<u>Ingredients</u>	<u>CAS Number</u>	<u>Exposure Limits in ppm (parts per million)</u>	<u>Flash Point</u>		<u>Vapor Pressure (mm Hg at 20°C)</u>	<u>Evap. Rate n-Butyl Acetate=1</u>	<u>Boiling Point</u>		<u>Flammable Limits in %</u>		<u>Autoignition Pt.</u>	
			<u>°F</u>	<u>°C</u>			<u>Low'r</u>	<u>Upp'r</u>	<u>°F</u>	<u>°C</u>		
1. Copper Powder	7440-50-8	1 mg/m <sup>3</sup> Dust	-NA-		NA	NA	-NA-	-NA-			Unknown	
2. Diisodecyl adipate	27178-16-1	5 mg/m <sup>3</sup> Mist A, O	>200	>93	<0.1	<0.1	Unknown	Unknown			Unknown	
3. Naphthenic Oil	64742-52-5	5 mg/m <sup>3</sup> Mist A, O	350	177	<0.1	<0.1	450	232	Unknown		650	343
4. Organophilic Bentonite	68953-58-2	10 g/m <sup>3</sup> dust A, O	-NA-		NA	NA	-NA-	-NA-			-NA-	
5. Polyalpha olefin	68037-01-4	5 mg/m <sup>3</sup> Mist A, O	550	288	<0.1	<0.1	Unknown	Unknown			Unknown	
6. Treated Amorphous Fumed Silica	67762-90-7	10 g/m <sup>3</sup> dust A, O	-NA-		NA	NA	-NA-	-NA-			-NA-	

A means ACGIH TLV, O means OSHA PEL. Other abbreviations: > means greater than, < means less than, NA means Not Applicable.

**SECTION IV—PHYSICAL DATA**

**Evaporation Rate:** NA **Vapor Density:** NA  
**Solubility in Water (Wt. %):** Negligible **Volatile Volume %:** Negligible  
**Approximate Boiling Point:** NA  
**Product Density (water=1):** **BC-L:** 1.51, **BS-L:** 0.91  
**Appearance and Odor:** See Sec. II

**SECTION V—FIRE AND EXPLOSION DATA**

**Flammability Class:** NA  
**Flash Point (Tag Closed Cup Method):** See SECTIONS II, III.  
**Approximate Flammable Limits:** See SECTIONS II, III  
**Autoignition Temperature:** See SECTIONS II, III  
**Extinguishing Media:** Dry chemical, CO<sub>2</sub>, foam and water fog are effective but may cause frothing.  
**Special Fire Fighting Procedures:** Use protective equipment in enclosed spaces such as self-contained breathing equipment. If downwind, use respiratory protective equipment. Cool containers with water.

**Unusual Fire and Explosion Hazards:** Grease is not electrically conductive as supplied, but might become so in use. Also ash from BC-L (Copper) is conductive; be careful of ash cloud coming into electrical contacts.

**SECTION VI—HEALTH HAZARD DATA**

**PRIMARY ROUTES OF EXPOSURE:** Skin contact, eye contact and ingestion.

**SIGNS AND SYMPTOMS OF EXPOSURE:**

**INHALATION:**

**Acute Exposure:** Impossible at room temperature.

**Chronic Exposure:** Impossible at room temperature.

**EYE CONTACT:**

**Acute Exposure:** Irritation of the eyes with itching, burning, redness and even permanent tissue damage if not flushed out immediately.

**Chronic Exposure:** As in Acute Exposure.

**SKIN CONTACT:**

**Acute Exposure:** No significant effects  
**Chronic Exposure:** Mild skin irritation and inflammation and sensitization dermatitis

**INGESTION:**

**Acute Exposure (from the copper powder in BC-L):** Hemolysis, jaundice, anuria, hypotension and convulsions.

**Chronic Exposure:** As in Acute Exposure.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:**

Dermatitis or eye irritation.

**CARCINOGENICITY:**

Products not listed by NTP, IARC or OSHA.

**SECTION VII—EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION:** NA

**EYE CONTACT:** Flush with clean, lukewarm water (low pressure) for at least 15 minutes while lifting eyelids. Refer person to physician for immediate attention.

**SKIN CONTACT:** Remove contaminated clothing immediately. Clean affected areas thoroughly with waterless hand cleaner and/or wash with soap and water. Dry clean contaminated clothing thoroughly before reuse. Seek medical attention if irritation develops or persists.

**INGESTION:** Induce vomiting. Consult physician, hospital emergency room or poison control center immediately. Have list of ingredients available.

**NOTES TO PHYSICIAN:**

**Inhalation:** NA

**Eyes:** May cause conjunctivitis. Stain for evidence of corneal injury.

**Skin:** Treat as any contact dermatitis.

**Ingestion:** Remove with Gastric Lavage.

### SECTION VIII–EMPLOYEE PROTECTION RECOMMENDATIONS

**EYE PROTECTION:** Wear safety glasses.

**SKIN PROTECTION:** Cover as much of the skin as possible with appropriate clothing. Wear oil resistant gloves.

**VENTILATION AND RESPIRATORY PROTECTION:** NA

**OTHER PROTECTIVE MEASURES:** Eyewash stations should be available. Educate and train employees in safe use of products. Follow all label instructions.

### SECTION IX–REACTIVITY DATA

**STABILITY:** Stable under normal room conditions.

**CONDITIONS TO AVOID:** None.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**INCOMPATIBILITY (Materials to Avoid) BC-L:** Avoid contact with strong oxidizers, strong alkalis, chlorates, bromates, mineral acids and other copper reactive compounds.

**BS-L:** Strong oxidizers.

**HAZARDOUS DECOMPOSITION PRODUCTS: By high heat and fire: BC-L:** Noxious copper compounds, oil vapors, carbon dioxide, carbon monoxide, hydrocarbon vapors, smoke, soot.

**BS-L:** All but the noxious copper compounds.

### KEEP OUT OF THE REACH OF CHILDREN!

### SECTION XII–FEDERAL EPA REGULATION COMPLIANCE INFORMATION

#### EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT of 1986

**1) Section 313 Supplier Notification:** Chemicals marked with an \* in the following tables are subject to the Toxic Chemical Release Inventory Reporting Requirements using **EPA FORM R** (40 CFR Part 372).

**2) Section 312:** All the chemicals listed are subject to Emergency and Hazardous Chemical Inventory Forms and Community Right-to-Know Reporting Requirements: Tier I and Tier II Reports (40 CFR Part 370).

**NOTE:** This information should be included in all MSDSs that are copied and distributed for materials covered by this MSDS.

#### HAZARDOUS INGREDIENTS–APPROXIMATE PERCENTAGES BY WEIGHT

<u>Ingredients (Chemicals)</u>	<u>CAS Number</u>	<u>BC-L</u>	<u>BS-L</u>
1. Copper Powder*	7440-50-8	35-45	–
2. Diisodecyl adipate	27178-16-1	–	8-10
3. Naphthenic Oil	64742-52-5	50-60	–
4. Organophilic Bentonite	68953-58-2	–	–
5. Polyalpha olefin	68037-01-4	–	80-90
6. Treated Amorphous Fumed Silica	67762-90-7	–	8-10
Physical Hazard-Fire		NOT A HAZARD	
Physical Hazard-Pressure Release		NOT A HAZARD	
Health Hazard-Acute		100	100
Health Hazard-Chronic		35-45	8-10
Physical Hazard-Reactivity		NOT A HAZARD	

#### SECTION XIII–VOLATILE ORGANIC COMPOUND (V.O.C.) CONTENT ACCORDING TO THE FEDERAL EPA

<u>Stock Numbers</u>	<u>BC-L</u>	<u>BS-L</u>
<b>Percent by Weight</b>	0	0
<b>Pounds per Gallon</b>	0	0
<b>Grams per Liter</b>	0	0

#### SECTION XIV–CALIFORNIA PROPOSITION 65 WARNINGS

According to the California Safe Drinking Water and Toxic Enforcement Act (PROPOSITION 65) "No person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the state of California to cause cancer, birth defects or reproductive toxicity without first giving clear and reasonable warning to such individuals of such an exposure".

**The following warnings apply:** NONE

#### SECTION XV–OZONE DEPLETION IN THE UPPER ATMOSPHERE

No upper atmosphere ozone depleting chemicals are present in these products.

**DISCLAIMER:** The information contained in this MSDS is believed to be accurate and reliable as of the date indicated. **Crest Industries, Inc.** assumes no legal responsibility and makes no representation, warranty or guarantee, expressed or implied, as to the completeness or accuracy of the information. It is offered solely for your consideration, investigation and verification. The user is ultimately responsible for the safe use of the material in accordance with applicable federal, state, provincial and local laws and regulations.

### SECTION X–SPILL OR LEAK PROCEDURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED.** Scrape up or wipe up with rags. Scrub with detergent and water.

**WASTE DISPOSAL METHOD:** Follow all federal, state and local environmental control regulations. Incineration of the liquid or dried material is the preferred method.

**RCRA STATUS:** Since these products are toxic, they are hazardous when discarded.

### SECTION XI–SPECIAL PRECAUTIONS & STORAGE DATA

#### STORAGE TEMPERATURE:

**MINIMUM/MAXIMUM:** 50°F (10°C) / 120°F (49°C)

**RECOMMENDED SHELF LIFE:** One year

**PRECAUTIONS TO BE TAKEN IN HANDLING, STORAGE AND USE:** Avoid contact with skin and eyes. Wash hands after use and before eating, drinking, smoking or using the toilet. Employee education and training in the safe use and handling of these products are required under the OSHA Hazard Communication Standard (29 CFR 1910.1200).