Material Safety Data Sheet

IMPORTANT NOTICE: This Material Safety Data Sheet (MSDS) is issued by LA-CO Industries, Inc. (LA-CO) in accordance with the U.S. OSHA Hazard Communication Standard, Canadian WHMIS Controlled Products Regulations, British CHIP2 regulation 6, Australian NMRCWHS and ANSI Z400.1-1993 guidelines. The information contained herein must not be altered, deleted or added to, with the exception of adding supplier/importer information in the space provided. LA-CO has no objection to its MSDS being copied if: a) the copy is made for safety-related purposes; and b) no alterations or amendments are made to the text or format of the MSDS, with the exception of adding supplier/importer information in the space provided. LA-CO does not guaranty the accuracy of any MSDS for our products which: a) is not prepared by LA-CO; b) is not authorized by LA-CO; c) is not in the format originally supplied by LA-CO; or d) has otherwise been amended or altered by a third party, with the exception of adding supplier/importer information in the space provided.

Section 1  Product and Company Identification

Product Name:  E-Z Break Aerosol, Copper Grade
Revision #: 2.0  Date Prepared:  September 25, 1998  Date Revised:  July 1, 2001

Manufacturer:
LA-CO INDUSTRIES, Inc./Markal Co.
1201 Pratt Blvd.
Elk Grove Village, IL, USA  60007-5746
Information Telephone: 847-956-7600
Emergency Telephone: Call CHEMTREC
   USA 800-424-9300
   International (Call Collect) 1-703-527-3887
Chemical Formula: Mixture
CAS No.: Not Applicable. Derivation: Not Applicable.
Synonyms: Not Applicable.
General Use: Anti-Seize Lubricant

Section 2  Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heptane 1,3,4,5,6</td>
<td>142-82-5</td>
<td>11</td>
</tr>
<tr>
<td>ACGIH: TWA = 400 ppm; STEL = 500 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA: TWA = 500 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hexane (mixed isomers), including n-hexane 1,3,4,5,6</td>
<td>110-54-3</td>
<td>10</td>
</tr>
<tr>
<td>ACGIH: TWA = 50 ppm; STEL = 1000 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA: TWA = 500 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper Powder 1,3,4,5,6</td>
<td>7440-50-8</td>
<td>9</td>
</tr>
<tr>
<td>Propane 3,4,5</td>
<td>74-98-6</td>
<td>10</td>
</tr>
<tr>
<td>ACGIH: TWA = 2500 ppm</td>
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<td></td>
</tr>
<tr>
<td>OSHA: TWA = 1000 ppm</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butane 3,4,5,6</td>
<td>106-97-8</td>
<td>10</td>
</tr>
<tr>
<td>ACGIH: TWA = 800 ppm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(For Section 2 footnotes: See Section 15)

Section 3  Hazards Identification
EMERGENCY OVERVIEW: DANGER! EXTREMELY FLAMMABLE. HARMFUL OR FATAL IF SWALLOWED. CONTENTS UNDER PRESSURE.

Use only in a well-ventilated area with a constant supply of fresh air; avoid breathing spray mists and vapors. Do not get in eyes or on skin or clothing; wash thoroughly with soap and water after using, and before eating or smoking. Do not taste or swallow. KEEP OUT OF REACH OF CHILDREN. Do not transport, use, store, or dispose of near sources of heat or ignition (including flames, sparks, and hot surfaces). Containers exposed to direct sunlight or otherwise heated above 120°F (49°C) may burst. Store in a cool, dry area. Do not puncture or incinerate container.

POTENTIAL HEALTH EFFECTS
Primary Exposure Routes: Eyes, Skin, Inhalation

Acute Effects
- **Eyes**: Liquid or vapor can cause moderate to severe irritation.
- **Skin**: Contact may dry skin; prolonged contact may cause moderate irritation. Solvent action can dry and defat skin causing skin to crack, leading to dermatitis.
- **Ingestion**: Lung aspiration hazard. Harmful or fatal if swallowed.
- **Inhalation**: Respiratory irritation, headache, nausea, fatigue, drowsiness, impaired coordination.

Chronic Effects
- **Eyes**: None known.
- **Skin**: None known.
- **Ingestion**: None known.
- **Inhalation**: None known.
- **Carcinogenicity**: Not Applicable.
- **Target Organ Effects**: Not Applicable.
- **Medical Conditions Aggravated by Long-Term Exposure**: None known.
- **Other Information**: Not Applicable.

Section 4 First Aid

**Eye Contact**: Immediately flush eyes with water for at least 15 minutes. Remove contact lenses. Hold eyes open. Get medical attention.

**Skin Contact**: Remove excess with a towel or reg. Wash remainder with soap and water. Get medical attention if irritation persists. Remove contaminated clothing and launder before reuse.

**Ingestion**: LUNG ASPIRATION HAZARD. DO NOT INDUCE VOMITING. If swallowed, seek immediate medical advice and/or attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON. Immediately rinse mouth with water, spit out rinse, and drink a glassful of water.

**Inhalation**: Immediately remove victim to fresh air. Administer oxygen if needed. Apply artificial respiration if breathing has stopped. Get medical attention

**Other Information**: None known.

Section 5 Fire Fighting Measures

**Flash Point (method)**: -156°F / -104°C (estimated)

**Autoignition Temperature**: Not determined.

**LEL**: 1.2  **UEL**: 9.5

**Flammability Classification**: NFPA class IA

**Extinguishing Media**: Foam, Carbon Dioxide, Dry Chemical, Water Fog. Water spray may be ineffective. Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat. If water is used, fog nozzles preferred.

**Hazardous Combustion Products**: Carbon Monoxide and other toxic fumes.

**Unusual Fire or Explosion Hazards**: Closed containers may explode and discharge contents from
internal pressure build-up when exposed to extreme heat. Vapor accumulation can flash or explode if ignited. Overexposure to decomposition products may cause a health hazard. Symptoms may not be readily apparent. Obtain medical attention.

**Fire-Fighting Instructions/Equipment:** Keep personnel removed and upwind of any fire. Wear full fire-fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

### Section 6  Accidental Release Measures

Use recommended personal protective equipment (see Section 8).

**Small and Large Spills:** Avoid breathing vapors. Ventilate area. Remove all sources of ignition. Clean spill area with inert absorbent and place into closed containers for disposal.

### Section 7  Handling and Storage

**Handling Precautions:** Use recommended personal protective equipment (see Section 8). Wash thoroughly after handling. Do not puncture or incinerate (burn) cans. Do not stick pin, nail or any other sharp object into opening on top of can. See product label for additional information.

**Storage Requirements:** Store away from incompatible chemicals (see Sec. 10). Store in a cool, dry, well-ventilated area. Keep away from heat, sparks and flame. Do not store above 120°F (49°C).

### Section 8  Exposure Controls/Personal Protection

**Eye/ Face Protection:** Safety glasses. Where contact with the eyes is likely, use chemical goggles. Use a face shield as needed.

**Skin/Hand Protection:** Use solvent-resistant gloves. Use clean protective body-covering clothing as needed to minimize contact with clothing and skin.

**Respiratory Protection:** Avoid breathing vapors. Use with adequate ventilation equal to outdoors. In restricted areas, use approved chemical/mechanical filters designed to remove a combination of particles and vapor. In confined areas, use approved air line type respirator or hood. Self-contained breathing apparatus is required for vapor above PEL/TLV limits. Use a NIOSH/MSHA approved air-purifying respirator as needed to control exposure. Consult with respirator manufacturer to determine respirator selection, use, and limitations. Use a positive pressure air supplied respirator for uncontrolled releases or when air purifying respirator limitations may be exceeded. Follow respiratory protection program requirements (OSHA 1910.134 and ANSI Z88.2) for all respirator use.

**Other Equipment:** Eye wash and safety shower. Suitable for related activities where this product is used.

**Engineering Controls:** Use process enclosures, local exhaust ventilation, or other engineering controls to control sources of dust, vapor or fumes to keep PEL/TLV of most hazardous ingredient below acceptable limit and LEL below stated limit.

**Administrative Controls:** Users of this product must be properly trained and qualified in its use.

**Other Information:** No food or beverage should be consumed in the work area. Wash thoroughly before eating, drinking, or smoking.

### Section 9  Physical and Chemical Properties

**Appearance/Physical State:** Copper-colored paste.

**Odor:** Solvent-like.

**Odor Threshold (ppm):** Not Determined.

**Specific Gravity (H₂O = 1):** 0.85

**Solubility - Water:** Minimal

- **Fat:** Soluble

**Coefficient of Water/Oil Solubility:** <<1
Partition Coefficient (n-octanol/water): >>1
pH: Not applicable.
Melting Point: Not applicable.
Boiling Point: Not applicable.
Vapor Pressure (mm Hg at 20°C): Not determined.
Vapor Density (Air = 1): >1
Evaporation Rate (n-BuAc=1): <1
V.O.C. (U.S. Clean Air Act Section 111): 0%(w/w)
Flash Point (method): (see Section 5)
Autoignition Temperature: (see Section 5)
Flammability Classification: (see Section 5)
Unusual Fire or Explosion Hazards: (see Section 5)
Oxidizing Properties: Not Applicable.
Other Information: None.
Note: The physical data represented above are typical values and should not be construed as a specification.

Section 10 Stability and Reactivity

Chemical Stability: Stable
Hazardous Polymerization: Will Not Occur
Conditions to Avoid: Not applicable.
Chemicals to Avoid: Strong oxidizers.
Hazardous Decomposition Products (non-thermal): Not determined.

Section 11 Toxicological Information

Sensitization to Product: Not Applicable.
Irritancy of Product: Vapors or contact can cause skin and eye irritation.
Reproductive Toxicity: Not Applicable.
Teratogenicity: Not Applicable.
Mutagenicity: Not Applicable.

Further hazard information, if applicable, may be found in Section 3. Toxicological information regarding individual ingredients, if applicable, may be found in Section 2.

Section 12 Ecological Information

Mobility: Not Determined.
Degradability: Not Determined.
Accumulation: Not Determined.
Ecotoxicity: Not Determined.
Other Adverse Effects: Not Determined.

Section 13 Disposal Considerations

Dispose of in accordance with all applicable regulations.

The conditions of handling, storage, and use of this product are beyond our control and may be beyond our knowledge. For this and other reasons, LA-CO Industries, Inc. does not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.

Section 14 Transport Information
D.O.T. (U.S.)
  Proper Shipping Name: Consumer Commodity ORM-D
  Hazard Class or Division: Not applicable.
  Hazard Label: Not applicable.
  I.D. Number: Not applicable.
TDG (Canada): Consumer Commodity ORM-D
IATA: Not determined.
ICAO: Not determined.
IMO: Not determined.
Australian Code for the Transport of Dangerous Goods

Section 15 Regulatory Information

Footnotes for Section 2:
1 Subject to the reporting requirements of SARA Title III, Section 313.
2 Appears on the California Safe Drinking Water and Toxic Enforcement Act (Prop. 65) Substances List.
3 Appears on the Massachusetts Substances List.
4 Appears on the New Jersey Right-To-Know Hazardous Substances List.
5 Appears on the Pennsylvania Hazardous Substances List.
6 Appears on the Canadian WHMIS Ingredient Disclosure List.

U.S.A.
OSHA Hazard Status: This product is considered to be hazardous as defined by the U.S. OSHA HCS (29 CFR 1910.1200).
Toxic Substances Control Act (TSCA): All ingredients contained in this product are listed on the U.S. EPA TSCA Chemical Substance Inventory.
HMIS® Rating: Health 1, Flammability 4, Reactivity 0
NFPA® (704) Rating: Health 1, Flammability 4, Reactivity 0

CANADA
WHMIS Status: This product is considered to be hazardous as defined by Canadian WHMIS Controlled Products Regulations.
WHMIS Rating: B5, D1-B
WHMIS Risk Phrases: DANGER! EXTREMELY FLAMMABLE. HARMFUL OR FATAL IF SWALLOWED. CONTENTS UNDER PRESSURE.
WHMIS Precautionary Statements: Use only in a well-ventilated area with a constant supply of fresh air; avoid breathing spray mists and vapors. Do not get in eyes or on skin or clothing; wash thoroughly with soap and water after using, and before eating or smoking. Do not taste or swallow. KEEP OUT OF REACH OF CHILDREN. Do not transport, use, store, or dispose of near sources of heat or ignition (including flames, sparks, and hot surfaces). Containers exposed to direct sunlight or otherwise heated above 120°F (49°C) may burst. Store in a cool, dry area. Do not puncture or incinerate container.
Domestic Substances List (DSL): All ingredients contained in this product are listed on the Canadian EPA (CEPA) Domestic Substances List (DSL).

E.U.
European Inventory of Existing Chemical Substances (EINECS): All ingredients contained in this product are listed on the European Inventory of Existing Chemical Substances (EINECS).
Categories of Danger (Labeling Information): Extremely Flammable (F+), Harmful (Xn)
Risk (R) Phrases: Extremely flammable (R12), Irritating to eyes (R36), Harmful: may cause lung damage if swallowed (R65), Repeated exposure may cause skin dryness or cracking (R66), Vapours may cause drowsiness and dizziness (R67)
Safety (S) Phrases: Keep out of reach of children (S2), Keep container in a well-ventilated place (S9),
Keep away from food, drink and animal feedingstuffs (S13), Keep away from sources of ignition – No smoking (S16), In case of contact with eyes, rinse immediately with plenty of water and seek medical advice (S26), Wear suitable protective clothing (S36), In case of fire use foam, carbon dioxide, dry chemical, water fog. Water spray may be ineffective. Water may be used to cool containers to prevent pressure build-up and explosion when exposed to extreme heat. If water is used, fog nozzles preferred. (S43), Keep at temperature not exceeding 49°C (S47), Use only in well-ventilated areas (S51), If swallowed, do not induce vomiting: seek medical advice immediately and show this container, label, or Safety Data Sheet. Rinse mouth with water (only if the person is conscious) (S62/64),

AUSTRALIA

Worksafe Australia Status: This product is classified as hazardous according to criteria of Worksafe Australia.

HAZCHEM Code: Not determined.

Poisons Schedule Number: Not determined.

Further regulatory information regarding individual ingredients, if applicable, may be found in Section 2.

This product has been classified in accordance with the hazard criteria of the U.S. OSHA Hazard Communication Standard, the Canadian WHMIS Controlled Products Regulations, the British CHIP2 regulation 6, and the Australian NMRCWHS. This MSDS contains the information required by the above regulations and conforms to ANSI Z400.1-1993.

Section 16 Other Information

HMIS is a registered trademark of the National Paint and Coatings Association.

NFPA is a registered trademark of the National Fire Protection Association.

MSDS Prepared By: Director of Chemical Safety

The information contained herein is based on data available to us and is accurate and reliable to the best of our knowledge and belief. However, LA-CO Industries, Inc. makes no representations as to its completeness or accuracy. Information is supplied on condition that persons receiving such information will make their own determination as to its suitability for their purposes prior to use. In no event will LA-CO Industries, Inc. be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information contained herein.