MATERIAL SAFETY DATA SHEET

SECTION I — Chemical Product and Company Identification

PRODUCT IDENTIFICATION:
Duraflame® charcoal lighter fluid charcoal lighter: 32 oz. bottles.

DISTRIBUTOR'S NAME AND ADDRESS:
Duraflame, Inc.
P.O. Box 1230, Stockton, California 95201
Telephone: (209) 461-6600
Fax: (209) 461-9412

EMERGENCY CONTACT:
John Wichting, Risk Manager
Day Hours 8:00am-5:00pm PST (209) 461-6600
Night (209) 948-8661

TRANSPORTATION EMERGENCIES:
CHEMTREC: 800-424-9300 (Continental U.S.)
203-448-3511 (Alaska, Hawaii)

HEALTH EMERGENCIES:
Los Angeles Poison Information Center
323-222-3212

DATE REVISED: August 25, 2003

SECTION II — Composition/Information on Ingredients

Formula is a trade secret, patent pending

SECTION III — Hazards Identification

Risk and Safety Statements:
Potential Health Effects: Irritating to eyes, respiratory system and skin.
Eye Contact: Irritating to eyes; primary.
Inhalation: Risk of toxic inhalation from vapor exposure.
Ingestion: Harmful if swallowed. TOXIC: danger of very serious irreversible effects if swallowed.
Skin: Avoid contact with skin. May be irritating to the skin upon prolonged or frequent repeated contact.

Keep container tightly closed. Keep away from sources of ignition. No smoking. In case of accident, or if you feel unwell, seek medical advice immediately. (Show the label where possible)

SECTION IV — First Aid Measures

LIQUID MATERIAL
Ingestion (swallowing): Induce vomiting promptly using physician's instructions or by having patients stick finger down throat. After vomiting has been induced, give two teaspoons full of baking soda in a glass of water. CALL A PHYSICIAN. Never give anything by mouth to an unconscious person. Have patient lie down and keep warm. Cover eyes to exclude light.

Inhalation: After high vapor exposure, remove to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration.

Eye Contact: For eyes, flush with plenty of water for 15 minutes and get medical attention.

Skin Contact: In case of contact with skin immediately remove contaminated clothing. Wash thoroughly with soap and water. Wash contaminated clothing before reuse.
SECTION V — Fire Fighting Measures

Flash Point: 15 c /60 f (PM closed cup)

Fire and Explosion Hazard: HIGHLY FLAMMABLE!! VAPORS CAN CAUSE FLASH FIRE. Keep container tightly closed. Isolate from oxidizers, heat, sparks, electric equipment and open flame.

Extinguishing Media: NFP Class B extinguishers (Carbon Dioxide or foam) for Class I B liquid fires.

Special Fire-fighting Procedures: Water spray may be ineffective on fire but can protect fire-fighters and cool closed containers. Use fog nozzles if water is used. Do not enter confined fire-space without full bunker gear. (Helmet with face shield, bunker coats, gloves and rubber boots). Use NIOSH approved positive-pressure self-contained breathing apparatus.

SECTION VI — Accidental Release Measures

Containment Techniques: Stop spill at source. Dike area and contain.

Clean-up Procedures: Clean up remainder with absorbent materials. Mop up and dispose of. Persons without proper protection should be kept from area until cleaned up.

SECTION VII — Handling and Storage

Storage: Do not store above 49° C /120° F. Keep container tightly closed and upright when not in use to prevent leakage. OSHA has specific regulations regarding the warehousing and storage of flammable liquids. CFR 1910.106(2)(2). Being a consumer item and packaged according to commonly accepted practices, this container shall be exempt from the requirement of paragraph 1910.106(2)(2)(ii) and (ii).

Handling: Isolate from oxidizers, heat, sparks, electric equipment and open flame. Avoid breathing of vapor or spray mist. Avoid contact with skin and eyes. If spilled onto clothing, wash clothing before reuse. Ground bulk containers when transferring. Do not flame cut, saw, drill, braze, or weld. Empty container hazardous. Continue all label precautions.

SECTION VIII — Exposure Control/Personal Protection

Work Exposure Controls: Ventilate to keep vapors of this material below 65 ppm. If over TDV, in accordance with 29 CFR 1910.143, use NIOSH approved positive-pressure self-contained breathing apparatus. Consult Safety Equipment Supplier. Use explosion-proof equipment.

VENTILATION
LOCAL EXHAUST: Necessary
MECHANICAL (GENERAL): Acceptable
SPECIAL: None
OTHER: None

Work Protection: Wear OSHA Standard goggles or face shield. Consult Safety Equipment Supplier. Wear gloves, aprons and footwear impervious to this material. Wash clothing before reuse.

Work Hygiene Practices: Provide readily accessible eye wash stations and safety showers. Wash at end of each workshift and before eating, smoking or using the toilet. Promptly remove clothing that becomes contaminated. Launder contaminated clothing.
SECTION IX — Physical and Chemical Properties

Appearance: Liquid. Orange
Odor: Orange/Citrus
Molecular Weight: N.A.
Boiling Range: 65 102 187° C /149 216
370° F (+6 End Point)
Auto ignition temperature: 313 C /595 F
Lower flammable limit in air (% by vol):
1.0 (lowest component)
Solubility: N.A.
Freestag Point: N.A.
Percent Volatile (70°F): N.A.
Evaporation Rate (70°F): N.A.
Viscosity: N.A.
Flash point: 15 c/60 F (PM closed cup)
Flammability classification: class I
Hazardous air pollutants (haps) : 38.0
Wt. % /339.8 G/l/2.830 lbs/gal

SECTION X — Stability and Reactivity

Chemical Stability: Stable
Incompatibility: None
Conditions to avoid: Isolate from oxidizers, heat, sparks, electric equipment and open flame.
Materials to avoid: Isolate from strong oxidizers such as permanganes, chromates and peroxides.

SECTION XI — Toxicological Properties

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS NO.</th>
<th>OSHA/TWA</th>
<th>ACGIH/TLV</th>
<th>HAP</th>
<th>STEL</th>
<th>OSHA/ACGIH</th>
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<tr>
<td>Ingredient #1</td>
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<td>200ppm S</td>
<td>Yes</td>
<td>STL</td>
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<td>Ingredient #2</td>
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<td>50 ppm</td>
<td>No</td>
<td></td>
<td>Properity</td>
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<tr>
<td>Ingredient #3</td>
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<td>Ingredient #4</td>
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<td>Ingredient #5</td>
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<td>None Known</td>
<td>No</td>
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<td>Properity</td>
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<tr>
<td>Ingredient #6</td>
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<td>None Known</td>
<td>No</td>
<td></td>
<td>Properity</td>
</tr>
</tbody>
</table>

ACUTE HAZARDS:
Eye and skin contact: Primary irritation to skin, defating, dermatitis. Primary irritation to eyes, redness, tearing, blurred vision. liquid can cause eye irritation. Wash thoroughly after handling.
Inhalation: Anesthetic. Iritis, respiratory tract. Acute overexposure can cause reversible nervous system depression. Vapor harmful. Breathing vapor can cause irritation. Acute overexposure can cause damage to kidneys, blood, nerves, liver and lungs. Repeated exposure over URI can cause blindness.
**SECTION XI — Toxicological Properties (continued)**

Swallowing: Can be fatal or cause blindness if swallowed. Cannot be made non-poisonous.
Poisoning: Can cause irreversible nervous system damage and death. Harmful if swallowed.
Swallowing can cause abdominal irritation, nausea, vomiting and diarrhoea.

**SUBCHRONIC HAZARDS/CONDITIONS AGGREGATED**

Conditions aggravated:
Chronic over-exposure can cause damage to kidneys, blood, nerves, liver and lungs. Persons with severe skin, eye or kidney problems should avoid use.

**CHRONIC RAZARDS**

Cancer, reproductive and other chronic hazards: This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date.greater or equal to 0.1%. Contains an ingredient that by absorption thru skin may be harmful. Studies with laboratory animals indicate this product contains no ingredient that can cause damage to the.

**SECTION XII — Ecological Information**

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS #</th>
<th>Lowest Known Lethal Dose Data</th>
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<tbody>
<tr>
<td>Proprietary</td>
<td>1000.0 mg/kg (Man)</td>
<td>Lowest Known LD50 (ORAL)</td>
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<td>Proprietary</td>
<td>50000.0 mg/kg (Rabbits)</td>
<td>Lowest Known LD50 (SKIN)</td>
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</table>

Aquatic animal information:
The most sensitive known aquatic group to any component of this product is: Goldfish 250 ppm or mg/L (24 hour exposure). Keep out of sewers and natural water supplies.

Mobility: This material is a mobile liquid.

Degradability: This product is >95% biodegradable.

Accumulation: Bioaccumulation of this product has not been determined.

**SECTION XIII — Disposal Considerations**

Recycle / dispose of observing national, regional, state, provincial and local health, safety and pollution laws. If questions exist, contact the appropriate agencies.

**SECTION XIV — Transportation Information**

DOT Shipping Name: Consumer commodity

Emergency Response Guidebook Number: 131

Bill of Lading Description: Liquid gel charcoal lighter

Product Code Number: Various
SECTION XV — Regulatory Information (Not meant to be all inclusive)

EPA REGULATIONS:
SARA SECTION 311/312 HAZARDS: Acute Health, Fire

All components of this product are on the TSCA list.

SARA Title III Section 313 Supplier Notification

This product contains the indicated < > static chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372. This information must be included in all MSDSs that are copied and distributed for this material.

<table>
<thead>
<tr>
<th>Ingredient # 1</th>
<th>Proprietary</th>
<th>CAS#</th>
<th>WT. % (REG. SECTION)</th>
<th>RD(LBS)</th>
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<tr>
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<td>(511.312.313, ROCOA)</td>
<td>5/90</td>
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<tr>
<td>Proprietary</td>
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<td>(511.312)</td>
<td>Note.</td>
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</table>

STATE REGULATIONS:
INTERNATIONAL REGULATIONS

The components of this product are listed on the chemical inventories of the following countries: Australia, Canada, Europe (EINECS), Japan, Korea, United Kingdom.

SECTION XVI — Other Information

First Issued: April 12, 2001
Prepared by: Thao Huy nh
Revision for Current Revision: Updated contact information

Legend: CAS No. Chemical Abstract Service Number N.E. Not Established
PEL Permissible Exposure Limit, per OSHA N.A. Not Applicable
ACGIH American Conference of Governmental and Industrial Hygienists
TLV Threshold Limit Value, for ACGIH

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