



## MATERIAL SAFETY DATA SHEET

PRODUCT NAME:

LIGHTER FLUID/CHARCOAL STARTER

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**MANUFACTURER:**

Royal Oak Enterprises, Inc.  
1 Royal Oak Avenue  
Roswell, GA 30076  
(678) 461-3200

**EMERGENCY PROCEDURES**

***Trans. Emergencies***

Call CHEMTREC  
(800) 424-9300

***Health Emergencies***

Call Los Angeles Poison Info Center  
(323) 222-3212 (24 Hours)

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**SECTION I – HAZARDOUS INGREDIENTS/EXPOSURE LIMITS**

	<u>TLV</u>	<u>UNITS</u>	<u>AGENCY</u>	<u>TYPE</u>
Stoddard Solvent CAS# 64742-88-7	100	PPM	ACGIH	TWA
DOT Proper Shipping Name: Petroleum Naphtha	200	PPM	ACGIH	STEL
DOT Hazard Classification: Combustible Liquid	500	PPM	OSHA	TWA
	PEL= 100	PPM	OSHA	TWA

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**SECTION II – EMERGENCY AND FIRST AID PROCEDURES**

**EYE CONTACT:** If irritation or redness from exposure to vapors develops, move victim away from exposure and into fresh air. If irritation or redness persists, seek medical attention. For direct contact, flush the affected eye (s) with clean water for 15 minutes. Seek medical attention.

**SKIN CONTACT:** Remove contaminated clothing. Cleanse affected area (s) thoroughly by washing with mild soap and water. If irritation or redness develops and persists, seek medical attention.

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## **SECTION II – (Continued) EMERGENCY AND FIRST AID PROCEDURES**

**INHALATION (BREATHING):** If irritation of nose or throat develops, move victim away from source of exposure and into fresh air. If irritation persists, seek medical attention. If victim is not breathing, artificial respiration should be administered. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**INGESTION (SWALLOWING):** Aspiration Hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious, place on the left side with head down. If possible, do not leave unattended. Seek medical attention.

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## **SECTION III – HEALTH HAZARDS/ROUTES OF ENTRY**

**EYE CONTACT:** This material may cause eye irritation. Direct contact with the liquid or exposure to its vapors or mists may cause burning, tearing and redness.

**INHALATION (BREATHING):** Breathing high concentrations of vapors or mists may cause irritation of the nose, throat and respiratory tract. Signs of nervous system depression (e.g., drowsiness, dizziness, loss of coordination and fatigue) may occur. Respiratory symptoms associated with pre-existing lung disorders (e.g., asthma-like conditions) may be aggravated by exposure to this material.

**INGESTION (SWALLOWING):** Ingestion of excessive quantities may cause: irritation of the digestive tract. Signs of nervous system depression (e.g., drowsiness, dizziness, loss of coordination and fatigue). Aspiration hazard – this material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.

**COMMENTS:** This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC or OSHA.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as solvent or painters' syndrome). Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.

## SECTION IV – SPECIAL PROTECTION INFORMATION

**VENTILATION:** If current ventilation practices are not adequate for minimizing exposures, additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, systems safe for such locations should be used.

**RESPIRATORY PROTECTION:** The use of respiratory protection is advised when concentrations exceed the established exposure limits (See Section I). Depending on the airborne concentration, use a respirator or gas mask with appropriate cartridges and canisters (NIOSH approved, if available) or supplied air equipment.

**PROTECTIVE GLOVES:** The use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation.

**EYE PROTECTION:** Wear approved eye protection to safe guard against potential eye contact, irritation or injury.

**OTHER PROTECTIVE EQUIPMENT:** It is suggested that a source of clean water be available in work area for flushing eyes and skin. Impervious clothing should be worn as needed.

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## SECTION V - REACTIVITY DATA

**STABILITY:** Stable

**INCOMPATIBILITY (MATERIAL TO AVOID):** This product is incompatible with strong acids or bases, oxidizing agents and selected amines. Avoid heat and flame.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

**HAZARDS POLYMERIZATION:** Will not occur

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## SECTION VI - SPILL OR LEAK PROCEDURES *\*Highway or Railway Spills\** Call Chemtrec (800) 424-9300

**PRECAUTIONS IN CASE OF RELEASE OR SPILL:** Stay upwind and away from spill. Keep all sources of ignition and hot metal surfaces away from spill. If spill is indoors, ventilate area of spill. A universal type foam may be used to suppress vapors. Keep out of drains, sewers or waterways. Use sand or other inert material to dam and contain spill. Do not flush area with water. For small spills, do not flush with water; use absorbent pads. Call spill response team if large spill. Notify appropriate state/local agencies.

**WASTE DISPOSAL METHOD:** Dispose of product in accordance with local, county, state and federal regulations.

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**SECTION VII – STORAGE AND SPECIAL PRECAUTIONS**

**HANDLING AND STORAGE PRECAUTIONS:** Keep containers tightly closed. Keep containers cool, dry and away from sources of ignition. Use and store this product with adequate ventilation. Avoid inhalation of vapors and personal contact with the product. Use good personal hygiene practice. "Empty" containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, flame, sparks or other sources of ignition; they may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged and promptly shipped to the supplier or a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks, which contain or have contained this product, refer to occupational safety and health administration regulation, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operation.

**SECTION VIII – FIRE AND EXPLOSION HAZARD DATA**

<u>HFPA HAZARD CLASS</u>	<u>KEY</u>	<u>NPCA/HMIS HAZARD CLASS</u>
Health Hazard: 1	0 = Least	Health: 1
Flammability: 2	1 = Slight	Flam: 2
Reactivity: 0	2 = Moderate	React: 0
Other: --	3 = High	R.P.E.: --
	4 = Extreme	

FLASH POINT	103 Deg. F (TCC)
LOWER EXPLOSIVE LIMIT (% VOL.)	1.0
UPPER EXPLOSIVE LIMIT (% VOL.)	7.0

**EXTINGUISHING MEDIA:** Extinguish with dry chemical, CO<sub>2</sub> or a universal type foam.

**FIRE & EXPLOSION HAZARDS:** This material is combustible and may be ignited by heat or flame. This material will burn, but will not ignite readily.

**FIRE FIGHTING PROCEDURES:** The use of NIOSH approved self-contained breathing apparatus is recommended for fire fighters. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes.

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**SECTION IX - PHYSICAL DATA**

APPROX. BOILING POINT	318°F to 383°F
VAPOR DENSITY (AIR = 1)	4.8
VAPOR PRESSURE	<5@ 100 DEG. F (MM HG)
EVAPORATION RATE (N-BUTYL ACETATE = 1)	0.15
% VOLATILE	100%
% SOLUBILITY IN WATER	Negligible
SPECIFIC GRAVITY (TEMP/TEMP)	0.776 @ 60 DEG. F
APPEARANCE	Clear, has little if any color
ODOR	Characteristic

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**SECTION X - TRANSPORTATION REQUIREMENTS FOR OCEAN EXPORT SHIPMENTS**

**DEPARTMENT OF TRANSPORTATION CLASSIFICATION:**

Class 3 (Flammable Liquids), III

The DOT Information in this Section is based upon an evaluation of the product against the requirements of 49 CFR 172 and 173 as revised by HM-891

**D.O.T. PROPER SHIPPING NAME:**

Petroleum Distillates, N.O.S.

**OTHER REQUIREMENTS:** UN1268, GUIDE 27

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