E.E. Zimmerman Company/Elroy Turpentine Company
P.O. Box 111254
Pittsburgh, PA 15238
(412) 963-0949

Prepared: 5/05

# MATERIAL SAFETY DATA SHEET

E-Z KEROSENE

**EMERGENCY CONTACT**: FOR CHEMICAL EMERGENCY - SPILL, LEAK, FIRE, EXPOSURE, OR ACCIDENT, CALL CHEMTREC AT 1-(800)-424-9300, DAY OR NIGHT.

## Section 1. COMPOSITION/INFORMATION ON INGREDIENTS

| | | | EXPOSURE GUIDELINES | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | OSHA | | ACGIH | | MFG | | |
| COMPONENT/CAS NO. | LO% | HI% | TWA | STEL | TWA | STEL | TWA | STEL | UNIT |
| LIMITS FOR PRODUCT: | | | | | | | 100 | | PPM |
| Hydrodesulfurized Kerosene | | | | | | | | | |
| 64742-81-0 | 0.00 | 100.00 | | | | | 100 | | PPM |
| Naphthalene | | | | | | | | | |
| 91-20-3 | 0.00 | 3.00 | 10 | 15 | 10 | 15 | | | PPM |
| Proprietary Additives | | | | | | | | | |
| | 0.00 | 0.01 | No Specific Limit | | | | | | |
| N-Hexane | | | | | | | | | |
| 110-54-3 | 0.00 | 0.10 | 50 | | 50 | | | | PPM |
| Benzene | | | | | | | | | |
| 71-43-2 | 0.00 | 0.07 | 1 | 5 | 0.5000 | 2 | | | PPM |
| Toluene | | | | | | | | | |
| 108-88-3 | 0.00 | 0.30 | 100 | 150 | 50 | | | | PPM |
| Ethyl Benzene | | | | | | | | | |
| 100-41-4 | 0.00 | 0.20 | 100 | 125 | 100 | 125 | | | PPM |
| Xylene | | | | | | | | | |
| 1330-20-7 | 0.00 | 0.90 | 100 | 150 | 100 | 150 | | | PPM |
| Cumene | | | | | | | | | |
| 98-82-8 | 0.00 | 0.07 | 50 | | 50 | | | | PPM |

| ADDITIONAL EXPOSURE LIMITS | MFG. RECOMMENDATION | |
|---|---|---|
| 8 HR. TIME WEIGHTED PER MISSIBLE EXPOSURE | 100 PPM | 500 MG/M3 |

## Section 2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER! Combustible. Harmful if inhaled. High vapor concentrations may cause dizziness. May cause skin irritation. Harmful or fatal if swallowed. Pulmonary aspiration hazard - can enter lungs and cause damage. Contains material(s) which may cause cancer. Based on animal data.

Appearance - Clear or red liquid  Odor - Kerosene odor

POTENTIAL HEALTH EFFECTS

Primary Routes of Entry  Inhalation (X)  Skin (X)  Eye (X)  Ingestion (X)

Inhalation

Excessive exposures may cause irritation to eyes, nose, throat and lungs. Respiratory tract; Central nervous system (brain) effects; Headaches, nausea; Dizziness, loss of balance and coordination; Unconsciousness, coma; Respiratory failure and death.

Skin

Practically non-toxic if absorbed (LD50 greater than 2000 mg/kg). Contains a material(s) which has caused skin tumors in lab animals. May cause moderate irritation with prolonged or repeated contact.

Eye

Contact with the eye may cause minimal irritation.

Ingestion

Harmful or fatal if swallowed. Pulmonary aspiration hazard if swallowed and/or vomiting occurs - can enter lungs and cause damage.

Carcinogen listed by - IARC (NO) NTP (NO) OSHA (NO) ACGIH (NO) OTHER (NO)

PRE-EXISTING MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Disorders or diseases of the skin, eye, nervous system, respiratory and/or pulmonary system, lung (e. g. asthma-like conditions).

## Section 3. FIRST AID MEASURES

INHALATION

Move person to fresh air. If not breathing, give artificial respiration, obtain medical assistance.

SKIN

Wash with soap and water until no odor remains. If redness or swelling develops, obtain medical assistance. Immediately remove soaked clothing. Wash clothing before reuse.

EYE

Flush with water for at least 15 minutes. If irritation persists, obtain medical assistance.

INGESTION

Do not induce vomiting! Do not give liquids! Obtain emergency medical attention. Small amounts which accidentally enter mouth should be rinsed out until taste of it is gone.

## Section 4. FIRE FIGHTING MEASURES

FLASH POINT: 125 Minimum TCC (Deg. F); 50 Minimum TCC (Deg. C)
AUTOIGNITION TEMP.: 444 Estimated (Deg. F); 229 Estimated (Deg. C)

FLAMMABLE LIMTS IN AIR

Lower Explosive Limit (LEL): 0.7% Volume
Upper Explosive Limit (UEL): 5.0% Volume

FIRE AND EXPLOSION HAZARDS

Combustible (Flash Point 100 to 200F)

EXTINGUISHING MEDIA

Water Spray. Regular foam. Dry chemical. Carbon dioxide.

SPECIAL FIRE FIGHTING INSTRUCTIONS

Cool tank/container. Wear self-contained breathing appratus. Wear structural firefighters protective clothing.

NFPA/HMIS CLASSIFICATION:

Health - 0/0
Fire - 2/2
Reactivity - 0/0
Personal Protection Index - X

HAZARD RATING:

0=Least 1=Slight
2=Moderate 3=High
4=Extreme

SPECIFIC HAZARD: Combustible

## Section 5. ACCIDENTAL RELEASE MEASURES

Prevent ignition; Stop leak; Ventilate area. Contain spill. For large spill, leak or release. Use personal protective equipment stated in Section 7. Advise EPA; State Agency if required. Absorb on inert material. Shovel, sweep or vacuum spill.

## Section 6. HANDLING AND STORAGE

Keep away from heat, sparks and flame. Keep container tightly closed. Keep in well ventilated space. NFPA Class II storage. Transfer operations must be electrically grounded to dissipate static buildup. Avoid prolonged breathing of mist or vapor. Avoid prolonged or repeated contact with skin. Avoid contact with eyes. Wash thoroughly after handling. Never siphon by mouth.

## Section 7. EXPOSURE CONTROL/PERSONAL PROTECTION

Consult with a health/safety professional for specific selection.

VENTILATION

Use only with adequate ventilation. Mechanical ventilation recommended. General dilution ventilation acceptable.

PERSONAL PROTECIVE EQUIPMENT

EYE

Splash proof chemical goggles recommended to protect against splash of product.

GLOVES

Protective gloves recommended to protect against contact with product. The following glove materials are acceptable: Polyvinyl Chloride (PVC); Neoprene; Nitrile; Polyvinyl Alcohol; Viton.

RESPIRATOR

Concentration-in-air determines protection needed. Use only NIOSH certified respiratory protection. Half-mask air purifying respirator with organic vapor cartridges is acceptable to 10 times the exposure limit. Full-face air purifying respirator with organic vapor cartridges is acceptable to 50 times the exposure limit not to exceed the cartridge limit of 1000 ppm. Protection by air purifying respirators is limited. Use a positive pressure-demand full-face supplied air respirator or SCBA for exposures above 50X the exposure limit. If exposure is above IDLH (Immediately Dangerous to Life & Health) or there is the possibility of an uncontrolled release or exposure levels are unknown then use a positive pressure-demand full-face supplied air respitaor with escape bottle or SCBA.

OTHER

Avoid all skin contact. If contact is unavoidable, wear chemical resistant clothing. The following materials are acceptable as protective clothing materials: polyvinyl alcohol (PVA); polyvinyl chloride (PVC); Neoprene; Nitrile; Viton; Polyurethane; Safety shower and eye wash availability recommended. Launder soiled clothes. For non-fire emergencies, positive pressure self-contained breathing apparatus (SCBA) & structural firefighters' protective clothing will provide limited protection.

## Section 8. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| BOILING POINT | 325 to 572 (Deg. F) 163 to 300 (Deg. C) |
| MELTING POINT | N/A (Deg. F) N/A (Deg. C) |
| SPECIFIC GRAVITY | 0.81 (water=1) |
| PACKING DENSITY | N/A (kg/m3) |
| VAPOR PRESSURE | 11.89 (mm Hg @ 38 Deg C) |
| VAPOR DENSITY | 5 (Air=1) |
| SOLUBILITY IN WATER | NIL (% by volume) |
| pH INFORMATION | N/A at Conc. N.D. g/L H2O |
| % VOLATILES BY VOL | 100 |
| EVAPORATION RATE | 600X slower (Ethyl Ether=1) |
| OCTANOL/WATER COEFF | N.D. |
| APPEARANCE | Clear or red liquid |
| ODOR | Kerosene odor |
| ODOR THRESHOLD | 0.1 (PPM) |
| VISCOSITY | N.D. SUS @ N.D Deg F...1.9 CsT @ 40 Deg C |
| MOLECULAR WEIGHT | N.D. (G/Mole) |

## Section 9. STABILITY AND REACTIVITY

STABILITY

Stable

CONDITIONS TO AVOID

Heat, sparks and open flames

INCOMPATIBLE MATERIALS

Strong oxidizers

HAZARDOUS DECOMPOSITION

Combustion will produce carbon monoxide and asphyxiants

POLYMERIZATION

Will not occur

## Section 10. TOXICOLOGICAL INFORMATION

FOR THE PRODUCT

INHALATION: Overexposure may cause irritation to the eyes, nose, throat and respiratory tract, central nervous system (brain) effects, dizziness, loss of balance & coordination, respiratory failure & death. SKIN: Low acute toxicity. Moderate irritation with prolonged and repeated contact. EYE: Minimal irritation. ORAL: Harmful or fatal if swallowed: Pulmonary aspiration hazard - can enter lungs and cause damage. American Petroleum Institute studies have shown that kerosene produced skin cancer in mice when repeatedly applied without washing between applications for 2 years.

HYDRODESULFURIZED KEROSENE (COMPONENT)

INHALATION: Overexposure may cause irritation to eyes, nose, throat & respiratory tract; central nervous system (brain) effects, dizziness, loss of balance & coordination, respiratory failure & death. SKIN: Low acute toxicity. Moderate irritation with prolonged and repeated contact. EYE: Minimal irritation. ORAL: Harmful or fatal if swallowed: Pulmonary aspiration hazard - can enter lungs and cause damage. American Petroleum Institute studies have shown that kerosene produced skin cancer in mice when repeatedly applied without washing between applications for 2 years.

NAPHTHALENE (COMPONENT)

INHALATION: Vapors may cause respiratory tract irritation, headache, confusion, excitement, profuse sweating, abdominal pain, vomiting, diarrhea. SKIN: May be absorbed through the skin. May cause irritation and dermatitis. Occassional allergic responses are rare. EYE: Vapor causes irritation at 15 ppm. Contact may cause irritation. Conjunctivitis, corneal opacity. Reported to cause cataracts. ORAL: Moderately toxic if swallowed. Blood effects (hemolysis), liver & kidney injury may also occur. May cause gastrointestinal irritation, vomiting, and diarrhea.

PROPRIETARY ADDITIVES (COMPONENT)

Component(s) identity not specified: No toxicology statement available.

N-HEXANE (COMPONENT)

INHALATION: Overexposure to high concentrations can cause eye, nose, throat, respiratory tract irritation; CNS (brain) effects, dizziness, confusion, coma. SKIN: Can be absorbed. Prolonged and repeated contact may cause irritation, burning sensation, itching, blisters. EYE: Irritating; repeated exposure may cause visual disturbance. INGESTION: Aspiration hazard if swallowed and/or vomiting occurs - can enter lungs and cause damage. Prolonged exposures cause harm to the central nervous system producing a lack of feeting in extremities (hands and feet) and more severe nerve damage (peripheral neuropathy).

BENZENE (COMPONENT)

INHALATION: Vapor harmful! Overexposure to high concentrations can cause central nervous system (brain) effects, headache, dizziness, difficulty in breathing, unconsciousness, coma, liver and kidney effects/damage, death. There are reports of heart irregularities from massive exposures. IARC Group 1 - Human Cancer Hazard. Repeated/prolonged inhalation can cause blood disorders - anemia to leukemia. Changes in chromosomes. Fetal effects in anilmal studies at repeated/prolonged exposures. SKIN: Can be absorbed; irritating. EYE: Severe irritation possible. ORAL: Poison! Harmful or fatal if swallowed. Pulmonary aspiration hazard - can enter the lungs and cause damage.

TOLUENE (COMPONENT)

INHALATION: Vapor harmful! Overexposure to high concentrations: eye, nose, throat, lung irritation; CNS (brain) effects, dizziness, difficulty in breathing, coma, death. Reports of heart beat irregularites from massive exposure. Prolonged overexposure can cuase brain, liver, kidney effects/damage. SKIN: Can be absorbed. Prolonged contact is irritating. EYE: Irritation. ORAL: Harmful or fatal if swallowed. Pulmonary aspiration hazard - can enter lung & cause damage. PREGNANT: May cause mental and/or growth retardation in children of female solvent abusers (sniffers); in rats prolonged breathing was toxic to fetuses & mothers - 1500 ppm; no birth defects - 5000 ppm. No effects - 750 ppm.

ETHYL BENZENE (COMPONENT)

INHALATION: Overexposure to high concentrations can cause eye, nose, throat & respiratory irritation, central nervous system (brain) effects, dizziness, loss of balance & coordination, unconsciousness, respiratory failure & death. Prolonged breathing can cause liver and kidney effects. SKIN: Low acute toxicity. Absorbable through skin. Moderate irritation. EYE: Moderate irritant. ORAL: Harmful or fatal if swallowed. Pulmonary aspiration hazard if swallowed and/or vomiting occurs - can enter lungs and cause damage. Prolonged overexposure of 1000 ppm caused maternal and fetal toxicity.

XYLENE (COMPONENT)

INHALATION: Vapor harmful! Overexposure to high concentrations can cause eye, nose, throat, lung irritation; CNS (brain) effects, dizziness, difficulty in breathing, unconsciousness, coma and death. Reports of heart irregularities from massive exposures. Prolonged overexposures can cause brain, liver, kidney effects/damage. SKIN: Can be absorbed. Repeated/prolonged contact is irritating. EYES: Irritant. ORAL: Harmful or fatal if swallowed. Pulmonary aspiration hazard - can enter lungs and cause damage. In rats, prolonged breathing of 500 ppm - fetal effects but no birth defects; no effects at 400 ppm. High oral dose was toxic to pregnant mice; cleft palate in fetuses.

CUMENE (COMPONENT)

INHALATION: Vapor harmful! Overexposure to high concentrations can cause eye, nose, throat, respiratory tract irritation, CNS (brain) effects, nausea, headache, dizziness, difficulty in breathing, incoordination, unconsciousness, death. SKIN: Low acute toxicity. Can be absorbed. Moderate irritation. EYE: Mild irritant. ORAL: Moderate acute toxicity. Harmful or fatal if swallowed. Pulmonary aspiration hazard - can enter lungs and cause damage. In rats - NOAEL for maternal toxicity is 100 ppm; developmental toxicity NOAEL is 1200 ppm. In rabbits - NOAEL for developmental toxicity is 2300 ppm.

## Section 11. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA

no data available

## Section 12. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. RCRA hazardous waste. Do not flush to drain/storm sewer. Contract to authorized disposal service.

## Section 13. TRANSPORTATION INFORMATION

DOT

| | |
|---|---|
| Proper Shipping Name | PAINT RELATED MATERIAL |
| Container Mode | 55 Gal Drum/5 Gal Pail/Gallon/Quart |

IMDG

| | |
|---|---|
| Proper Shipping Name | Not Available |

IATA

| | |
|---|---|
| Proper Shipping Name | Not Available |

## Section 14. REGULATORY INFORMATION

| | |
|---|---|
| SARA 302 THRESHOLD PLANNING QUANTITY | N/A |
| SARA 304 REPORTABLE QUANTITY | 3333 pounds |

SARA 311 CATEGORIES

| | |
|---|---|
| Immediate (Acute) Health Effects | Y |
| Delayed (Chronic) Health Effects | Y |
| Fire Hazard | Y |
| Sudden Release of Pressure Hazard | N |
| Reactivity Hazard | N |

When a product and/or component is listed below, the regulatory list on which it appears is indicated.

| | |
|---|---|
| NAPHTHALENE | FL MA MN NJ PA 01 07 |
| N-HEXANE | FL MA MN NJ PA 01 |
| BENZENE | CA FL MA MN NJ PA 01 03 04 05 06 07 10 |
| TOLUENE | CA FL MA MN NJ PA 01 07 |
| ETHYL BENZENE | FL MA MN NJ PA 01 07 |
| XYLENE | FL IL MA ME MN NJ PA RI 01 07 |
| CUMENE | FL MA MN NJ PA 01 07 |

| | | |
|---|---|---|
| 01=SARA 313 | 02=SARA 302/304 | 03=IARC CARCINOGEN |
| 04=OSHA CARCINOGEN | 05=ACGIH CARCINOGEN | 06=NTP CARCINOGEN |
| 07=CERCLA 302.4 | 08=WHMIS CONTROLLED PROD. | |
| 10=OTHER CARCINOGEN | | |
| PA=PENNSYLVANIA RTK | NJ=NEW JERSEY | CA=CALIFORNIA PROP 65 |
| MA=MASSACHUSETTS RTK | MI=MICHIGAN 406 | MN=MINNESOTA RTK |
| FL=FLORIDA | RI=RHODE ISLAND | IL=ILLINOIS |
| NY=NEW YORK | WV=WEST VIRGINIA | CT=CONNECTICUT |
| LA=LOUISIANA | ME=MAINE | OH=OHIO |

This product or all components of this product are listed on the U.S. TSCA Inventory.

## Section 15. OTHER INFORMATION

Danger! Keep out of reach of children. Never add fuel to an operating or hot kerosene heater. Always refuel kerosene heaters outdoors. Only approved metal containers should be used for storage. Containers are hazardous when empty as product vapor or liquid remains. Follow all labeled precautions. ACGIH is proposing a new TLV-TWA of 350 mg/m3.

Kerosene 1-K wiil appear clear if it is taxed, but will be dyed red if it is untaxed.

E. E. Zimmerman Company/Elroy Turpentine Company believes that the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind, express or implied, and we assume no responsibility for any loss, damage, or expense direct or consequential, arising out of their use.