



## Material Safety Data Sheet

Creation Date 11-Feb-2010

Revision Date 11-Feb-2010

Revision Number 1

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	<b>Petroleum Ether</b>
<b>Cat No.</b>	<b>E120-4; E120-4LC; E120SK-4; E120SS-50; E139-1; E139-4; E139-20; E139-200; E139-500; E139FB-19; E139FB-50; E139FB-115; E139FB-200; E139RB-50; E139RB-115; E139RB-200; E139RS-19; E139RS-28; E139RS-50; E139RS-115; E139RS-200; E139S-4; E139SK-4; E139SS-28; E139SS-50; E139SS-200; P480-4; P480-4LC; P480RS-19; P480RS-28; P480RS-50; P480RS-115; P480RS-200; P480SS-28; P480SS-50; P480SS-115; P480SS-200; P481RS-200; P481SS-200</b>
<b>Synonyms</b>	Ligroine; Benzine; Naphtha Petroleum; Naphtha Solvent (Optima/Pesticide/Certified ACS)
<b>Recommended Use</b>	Laboratory chemicals
<b>Company</b> Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	<b>Emergency Telephone Number</b> CHEMTREC®, Inside the USA: 800-424-9300 CHEMTREC®, Outside the USA: 703-527-3887

### 2. HAZARDS IDENTIFICATION

#### **DANGER!**

#### **Emergency Overview**

Flammable liquid and vapor. Cancer hazard. May cause heritable genetic damage. May cause eye, skin, and respiratory tract irritation. Inhalation may cause central nervous system effects. Aspiration hazard if swallowed - can enter lungs and cause damage.

**Appearance** Colorless

**Physical State** Liquid

**odor** Petroleum distillates

**Target Organs** Central nervous system (CNS)

#### **Potential Health Effects**

#### **Acute Effects**

#### **Principle Routes of Exposure**

**Eyes**  
**Skin**

May cause irritation.  
May cause irritation. May be harmful in contact with skin.

<b>Inhalation</b>	May cause irritation of respiratory tract. Inhalation may cause central nervous system effects. May be harmful if inhaled.
<b>Ingestion</b>	Aspiration hazard. May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Chronic Effects</b>	May cause cancer. May cause heritable genetic damage. Experiments have shown reproductive toxicity effects on laboratory animals.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** Central nervous system disorders. Preexisting eye disorders. Skin disorders.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Haz/Non-haz

Component	CAS-No	Weight %
Ligroine	8032-32-4	100

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately.
<b>Notes to Physician</b>	Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b>	< -17.8°C / < 0°F
<b>Method</b>	No information available.
<b>Autoignition Temperature</b>	287.8°C / 550°F
<b>Explosion Limits</b>	
<b>Upper</b>	5.9 vol %
<b>Lower</b>	1.1 vol %
<b>Suitable Extinguishing Media</b>	CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam. Cool closed containers exposed to fire with water spray.
<b>Unsuitable Extinguishing Media</b>	Water may be ineffective.
<b>Hazardous Combustion Products</b>	No information available.
<b>Sensitivity to mechanical impact</b>	No information available.
<b>Sensitivity to static discharge</b>	No information available.

**Specific Hazards Arising from the Chemical**

Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

**NFPA****Health 1****Flammability 3****Instability 0****Physical hazards N/A****6. ACCIDENTAL RELEASE MEASURES****Personal Precautions**

Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Avoid contact with skin, eyes and clothing.

**Environmental Precautions**

Should not be released into the environment.

**Methods for Containment and Clean Up**

Remove all sources of ignition. Soak up with inert absorbent material. Take precautionary measures against static discharges. Keep in suitable and closed containers for disposal.

**7. HANDLING AND STORAGE****Handling**

Use only under a chemical fume hood. Use explosion-proof equipment. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing.

**Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Keep under nitrogen. Flammables area.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Engineering Measures**

Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ligroine	TWA: 300 ppm	(Vacated) TWA: 1350 mg/m <sup>3</sup> (Vacated) TWA: 300 ppm (Vacated) STEL: 1800 mg/m <sup>3</sup> (Vacated) STEL: 400 ppm	TWA: 350 mg/m <sup>3</sup> Ceiling: 1800 mg/m <sup>3</sup>

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Ligroine	TWA: 1370 mg/m <sup>3</sup> TWA: 300 ppm	TWA: 1350 mg/m <sup>3</sup> TWA: 300 ppm STEL: 1800 mg/m <sup>3</sup> STEL: 400 ppm	TWA: 1350 mg/m <sup>3</sup>

**NIOSH IDLH:** Immediately Dangerous to Life or Health

### Personal Protective Equipment

#### Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166

#### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

#### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid
<b>Appearance</b>	Colorless
<b>odor</b>	Petroleum distillates
<b>Odor Threshold</b>	No information available.
<b>pH</b>	No information available.
<b>Vapor Pressure</b>	No information available.
<b>Vapor Density</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Boiling Point/Range</b>	38°C / 100.4°F
<b>Melting Point/Range</b>	No information available.
<b>Decomposition temperature °C</b>	No information available.
<b>Flash Point</b>	< -17.8°C / < 0°F
<b>Evaporation Rate</b>	Slower than ether
<b>Specific Gravity</b>	No information available.
<b>Solubility</b>	Insoluble in water
<b>log Pow</b>	No data available

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Heat, flames and sparks.
<b>Incompatible Materials</b>	None known
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> ), Hydrocarbons
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur
<b>Hazardous Reactions .</b>	None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ligroine	Not listed	Not listed	3400 ppm ( Rat ) 4 h

**Irritation** No information available.

**Toxicologically Synergistic Products** No information available.

### Chronic Toxicity

**Carcinogenicity** The European Union classifies this product as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Mexico
Ligroine	A3	Not listed	Not listed	Not listed	Not listed

**ACGIH: (American Conference of Governmental Industrial Hygienists)**

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

**Sensitization** No information available.

**Mutagenic Effects** No information available.

**Reproductive Effects** Experiments have shown reproductive toxicity effects on laboratory animals.

**Developmental Effects** Developmental effects have occurred in experimental animals.

**Teratogenicity** No information available.

**Other Adverse Effects** The toxicological properties have not been fully investigated.. See actual entry in RTECS for complete information.

**Endocrine Disruptor Information** No information available

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

. Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ligroine	EC50 72 h 4700 mg/L	Not listed	Not listed	Not listed

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available

**Mobility** No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

**14. TRANSPORT INFORMATION**

**DOT**

UN-No UN1268  
 Proper Shipping Name PETROLEUM DISTILLATES, N.O.S.  
 Hazard Class 3  
 Packing Group II

**TDG**

UN-No UN1268  
 Proper Shipping Name PETROLEUM DISTILLATES, N.O.S.  
 Hazard Class 3  
 Packing Group II

**IATA**

UN-No UN1268  
 Proper Shipping Name PETROLEUM DISTILLATES, N.O.S.  
 Hazard Class 3  
 Packing Group II

**IMDG/IMO**

UN-No UN1268  
 Proper Shipping Name PETROLEUM DISTILLATES, N.O.S.  
 Hazard Class 3  
 Packing Group II

**15. REGULATORY INFORMATION**

**International Inventories**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Ligroine	X	X	-	232-453-7	-		X	-	X	X	KE-21994 X

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).  
 Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.  
 Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations**

**TSCA 12(b)** Not applicable

**SARA 313**  
 Not applicable

**SARA 311/312 Hazardous Categorization**

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	Yes
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**  
 Not applicable

**Clean Air Act**  
 Not applicable

**OSHA**  
 Not applicable

**CERCLA**  
 Not Applicable

**California Proposition 65**  
 This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Ligroine	-	X	X	-	-

**U.S. Department of Transportation**

Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

**U.S. Department of Homeland Security**  
 This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade**                      Serious risk, Grade 3

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

B2 Flammable liquid  
D2A Very toxic materials

**16. OTHER INFORMATION**

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**Revision Summary** "\*\*\*\*", and red text indicates revision

**Disclaimer**

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**