

MATERIAL SAFETY DATA SHEET

The Valvoline Company

Page 001  
 Date Prepared: 08/24/98  
 Date Printed: 12/07/99  
 MSDS No: 503.0340954-001.001

PYROIL STARTING FLUID

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity  
 Product Name: PYROIL STARTING FLUID  
 General or Generic ID: SOLVENT BLEND

Company	Telephone Numbers
The Valvoline Company	Emergency: 1-800-274-5253
P.O. Box 14000	
Lexington, KY 40512	Information: 1-505-357-7847

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
HEPTANE	142-82-5	57.0- 77.0
ETHYL ETHER	50-29-7	10.0- 20.0
CARBON DIOXIDE	124-38-9	4.8- 15.0
HEXANE	110-54-3	2.7- 2.7

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Additional symptoms of eye exposure may include: blurred vision

Skin

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns.

Swallowing

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage.

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Inhalation

Breathing of vapor or mist is possible.

Symptoms of Exposure

stomach or intestinal upset (nausea, vomiting, diarrhea),  
irritation (nose, throat, airways), central nervous system  
depression (dizziness, drowsiness, weakness, fatigue, nausea,  
headache, unconsciousness), and death.

Target Organ Effects

Prolonged and repeated inhalation of high levels of mixed isomers  
of hexane resulted in kidney damage in male rats. The effects  
observed are the same as those seen in male rats exposed to other  
hydrocarbons. The mechanism by which these chemicals cause the  
characteristic kidney toxicity is unique to the male rat and the  
kidney effects are not expected to occur in man.

Developmental Information

No data

Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin contact.

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4. FIRST AID MEASURES

Eyes

If symptoms develop, immediately move individual away from  
exposure and into fresh air. Flush eyes gently with water for at  
least 15 minutes while holding eyelids apart; seek immediate  
medical attention.

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Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Swallowing

Do not induce vomiting. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with the head down. Seek medical attention. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

Note to Physicians

No data

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5. FIRE FIGHTING MEASURES

Flash Point

Not applicable

Explosive Limit

(for component) Lower 1.0 %

Autoignition Temperature

No data

Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards

Material is highly volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, other flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

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Extinguishing Media

regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions

Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

NFPA Rating

Health - 1, Flammability - 4, Reactivity - 0

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5. ACCIDENTAL RELEASE MEASURES

Small Spill

Allow to evaporate. Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Ventilate area.

Large Spill

Allow to evaporate. Persons not wearing protective equipment should be excluded from area until leak has been repaired. Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks).

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7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed.

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Storage

Not applicable

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection

Not required under normal conditions of use.

Skin Protection

Not required under normal conditions of use., Other protective equipment: not required under normal conditions of use..

Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (See Exposure Guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (consult your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines

Component

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HEPTANE (142-82-5)

OSHA VPEL 400.000 ppm - TWA

OSHA VPEL 500.000 ppm - STEL

ACGIH TLV 400.000 ppm - TWA

ACGIH TLV 500.000 ppm - STEL

ETHYL ETHER (60-29-7)

OSHA VPEL 400.000 ppm - TWA

OSHA VPEL 500.000 ppm - STEL

ACGIH TLV 400.000 ppm - TWA

ACGIH TLV 500.000 ppm - STEL

CARBON DIOXIDE (124-38-9)

OSHA VPEL 10000.000 ppm - TWA

OSHA VPEL 30000.000 ppm - STEL

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ACGIH TLV 5000.000 ppm - TWA  
ACGIH TLV 30000.000 ppm - STEL

HEXANE (110-54-3)  
OSHA VPEL 50.000 ppm - TWA  
ACGIH TLV 50.000 ppm - TWA

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9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point  
(for component) 94.0 F (34.4 C)

Vapor Pressure  
(for component) 439.000 mmHg

Specific Vapor Density  
> 1.000 @ AIR=1

Specific Gravity  
.773 @ 77.00 F

Liquid Density  
5.800 lbs/gal @ 77.00 F  
.773 kg/l @ 25.00 C

Percent Volatiles (Including Water)  
No data

Evaporation Rate  
SLOWER THAN ETHYL ETHER

Appearance  
No data

State  
LIQUID

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Physical Form

No data

Color

CLEAR

Odor

No data

pH

No data

Flame Propagation

> 18.000 IN

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10. STABILITY AND REACTIVITY

Hazardous Polymerization

Product will not undergo hazardous polymerization.

Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Chemical Stability

Stable.

Incompatibility

Avoid contact with: strong oxidizing agents.

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11. TOXICOLOGICAL INFORMATION

No data

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12. ECOLOGICAL INFORMATION

No data

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13. DISPOSAL CONSIDERATION

Waste Management Information

Ventilate area of spill. Allow material to evaporate.

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14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101

DOT Description:

CONSUMER COMMODITY,ORM-D

Container/Mode:

CASES/SURFACE - ORM-D EXCEPTION

NOS Component:

None

RQ (Reportable Quantity) - 49 CFR 172.101

Product Quantity (lbs) Component

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553

DIETHYL ETHER

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15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

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CERCLA RQ - 40 CFR 302.4

Component	Component
ETHYL ETHER	100
HEXANE	5000

SARA 302 Components - 40 CFR 355 Appendix A  
 None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden  
 Release of Pressure( )

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number
N-HEXANE	110-54-3

International Regulations

Inventory Status  
 Not determined

State and Local Regulations

California Proposition 65  
 None

New Jersey RTK Label Information

N-HEPTANE	142-82-5
DIETHYL ETHER	60-29-7
CARBON DIOXIDE	124-38-9
N-HEXANE	110-54-3

Pennsylvania RTK Label Information

HEPTANE (N-)	142-82-5
ETHANE, 1,1'-OXYBIS-	60-29-7
CARBON DIOXIDE	124-38-9
HEXANE	110-54-3

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15. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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SOURCE:ASHLAND INC WTR EASYWTR

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