

MATERIAL SAFETY DATA SHEET

The Valvoline Company

Page 001

Date Prepared: 01/14/02

Date Printed: 03/10/04

MSDS No: 503.0177783-006.008

PREMIUM STARTING FLUID

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity

Product Name: PREMIUM STARTING FLUID

General or Generic ID: SOLVENT BLEND

Company

The Valvoline Company

P.O. Box 14000

Lexington, KY 40512

Telephone Numbers

Emergency: 1-800-274-5263

Information: 1-859-357-7206

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
HEPTANE	142-82-5	49.0- 59.0
ETHYL ETHER	60-29-7	26.0- 36.0
CARBON DIOXIDE	124-38-9	3.0- 13.0
HEXANE	110-54-3	6.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye

Can cause eye irritation. Additional symptoms of eye exposure may include: blurred vision.

Skin

May cause mild skin irritation. Prolonged or repeated contact may dry and crack the skin.

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 get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

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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. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals, and may aggravate preexisting disorders of these organs in humans: effects on hearing, testis damage, lung damage, central nervous system damage visual impairment, central nervous system effects.

Developmental Information

No data

Cancer Information

No data

Other Health Effects

No data

Primary Route(s) of Entry

Inhalation, Skin contact.

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

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. 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

This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin.

5. FIRE FIGHTING MEASURES

Flash Point

< -58.0 F (-50.0 C) TCC

Explosive Limit

(for component) Lower 1.0 %

Autoignition Temperature

No data

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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.

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

6. 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.

Storage

Not applicable

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

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)

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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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point

(for component) 94.0 F (34.4 C) @ 760.00 mmHg

Vapor Pressure

(for component) 439.000 mmHg @ 68.00 F

Specific Vapor Density

> 1.000 @ AIR=1

Specific Gravity

.758 @ 77.00 F

Liquid Density

5.800 lbs/gal @ 77.00 F

.758 kg/l @ 25.00 C

Percent Volatiles (Including Water)

No data

Evaporation Rate

SLOWER THAN ETHYL ETHER

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Appearance

No data

State

LIQUID

Physical Form

No data

Color

No data

Odor

No data

pH

Not applicable

Flame Propagation

> 18.000 in

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

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information

Ventilate area of spill. Allow material to evaporate.

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

321	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	1

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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16. 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