The Valvoline Company                        Date Prepared: 10/14/03
MSDS No: 503.0347808-003.001I
PYROIL LOW VOC ENGINE DEGREASER 12/15 OZ

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: PYROIL LOW VOC ENGINE DEGREASER 12/15 OZ
General or Generic ID: ENGINE DEGREASER

Company                              Telephone Numbers
The Valvoline Company               Emergency:     1-800-274-5263
P.O. Box 14000                      Information:   1-859-357-7206
Lexington, KY  40512

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)                                CAS Number    % (by weight)
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ALIPHATIC PETROLEUM DISTILLATES             64742-53-6    41.0- 51.0
KEROSENE                                    8008-20-6     40.0- 50.0
AROMATIC PETROLEUM DISTILLATES             64742-94-5    1.0-  9.0
CARBON DIOXIDE                              124-38-9      1.0-  7.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
Can cause severe eye irritation and injure eye tissue. 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. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Swallowing
Swallowing this material may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation
Breathing aerosol and/or mist is possible when material is sprayed. Aerosol and mist may present a greater risk of injury because more material may be present in the air than from vapor alone. Breathing this material may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways), cough, central nervous system
depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), involuntary eye movement, respiratory depression (slowing of the breathing rate), loss of coordination, confusion, irregular heartbeat, anesthesia, respiratory failure, coma, and death.

Target Organ Effects
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: testis damage, pancreatic damage, liver damage, brain damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans, and may aggravate preexisting disorders of these organs: liver damage.

Developmental Information
No data

Cancer Information
This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration. In a National Toxicology Program (NTP) study, lifetime inhalation exposure to naphthalene resulted in increases in tumors of the nose in rats. In a previous NTP study, lifetime exposure to naphthalene caused lung tumors in female mice. Male mice with the same exposure did not develop tumors. The relevance of this finding to humans is uncertain. Naphthalene is listed as carcinogenic by IARC (International Agency for Research on Cancer). This product (or a component) is a petroleum-derived material. Similar materials and certain compounds occurring naturally in petroleum oils have been shown to cause skin cancer in laboratory animals following repeated exposure without washing or removal.

Other Health Effects
No data

Primary Route(s) of Entry
Inhalation, Skin contact, Eye 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.

Skin
Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and 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, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians
Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. 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, lung (for example, asthma-like conditions), liver, central nervous system, pancreas, male reproductive system. Individuals with pre-existing heart disorders may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

5. FIRE FIGHTING MEASURES

Flash Point
> 120.0     F (48.8     C) COC

Explosive Limit
(for component) Lower 1.0  Upper 19.0   %

Autoignition Temperature
No data

Hazardous Products of Combustion
ammonia, carbon dioxide and carbon monoxide, hydrogen sulfide, nitrogen oxides, sulfur oxides, various hydrocarbons.

Fire and Explosion Hazards
Vapors are heavier than air and may travel along the ground or may 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 - 2, Flammability - 2, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES
Small Spill
Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material.

Large Spill
Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to containers for disposal. Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

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
Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection
Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

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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ALIPHATIC PETROLEUM DISTILLATES (64742-53-6)
OSHA VPEL 5.000 mg/m3 - TWA
ACGIH TLV 5.000 mg/m3 - TWA

KEROSENE (8008-20-6)
ACGIH TLV 200.000 mg/m3 - TWA ((Skin))

AROMATIC PETROLEUM DISTILLATES (64742-94-5)
No exposure limits established

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

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9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 172.4 - 174.2 F (78.0 - 79.0 C) @ 760 mmHg

Vapor Pressure
(for component) 733.000 mmHg @ 60.00 F

Specific Vapor Density
No data

Specific Gravity
.855 @ 77.00 F

Liquid Density
No data

Percent Volatiles (Including Water)
No data

Evaporation Rate
No data

Appearance
CLEAR

State
LIQUID

Physical Form
No data

Color
YELLOW

Odor
No data

pH
No data

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10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.

Hazardous Decomposition
ammonia, carbon dioxide and carbon monoxide, hydrogen sulfide, nitrogen oxides, sulfur oxides, various hydrocarbons.

Chemical Stability
Stable.

Incompatibility
Avoid contact with: excessive heat, oxidizable substances, strong alkalies, strong bases, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

No data

12. ECOLOGICAL INFORMATION

No data

13. DISPOSAL CONSIDERATION

Waste Management Information
Dispose of in accordance with all applicable local, state and federal regulations.

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
48497 NAPHTHALENE

15. REGULATORY INFORMATION

US Federal Regulations
CERCLA RQ - 40 CFR 302.4
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
None

International Regulations
Inventory Status
Not determined

State and Local Regulations
California Proposition 65
None

New Jersey RTK Label Information
KEROSENE  8008-20-6
CARBON DIOXIDE  124-38-9

Pennsylvania RTK Label Information
KEROSINE (PETROLEUM)  8008-20-6
CARBON DIOXIDE  124-38-9

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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