I. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<table>
<thead>
<tr>
<th>Ashland</th>
<th>Regulatory Information Number</th>
<th>1-800-325-3751</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.O. Box 2219</td>
<td>Telephone</td>
<td>614-790-3333</td>
</tr>
<tr>
<td>Columbus, OH 4321</td>
<td>Emergency telephone</td>
<td>1-800-ASHLAND (1-800-274-5263)</td>
</tr>
</tbody>
</table>

Product name: PYROIL® REGULAR STARTING FLUID
Product code: PYSFR11
Product Use Description: No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: aerosol

WARNING! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. CONTENTS UNDER PRESSURE. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. ASPIRATION HAZARD IF SWALLOWED - CAN ENTER LUNGS AND CAUSE DAMAGE. CAUSES EYE IRRITATION. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS.

Potential Health Effects

Exposure routes
Inhalation, Skin absorption, Skin contact, Eye Contact

Eye contact
Can cause severe eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure eye tissue.

Skin contact
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. 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.
Ingestion
  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.

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 small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition
  Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, Skin, lung (for example, asthma-like conditions)

Symptoms
  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), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), high blood pressure, effects on heart rate, effects on breathing rate

Target Organs
  Exposure to this material (or a component) has been found to cause kidney damage in male rats. The mechanism by which this toxicity occurs is specific to the male rat and the kidney effects are not expected to occur in humans.

Carcinogenicity
  This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard
  There are no data available for assessing risk to the fetus from maternal exposure to this material.

3. COMPOSITION/INFORMATION ON INGREDIENTS
SAFETY DATA SHEET

PYROIL® REGULAR STARTING FLUID
PYSFR11

Revision Date: 01/14/2010
Print Date: 4/1/2010
MSDS Number: R0340954
Version: 4.0

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>CAS-No.</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLVENT NAPTHHA (PETROLEUM), LIGHT ALIPHATIC</td>
<td>64742-89-8</td>
<td>&gt;=70-&lt;80%</td>
</tr>
<tr>
<td>ETHYL ETHER</td>
<td>60-29-7</td>
<td>&gt;=15-&lt;20%</td>
</tr>
<tr>
<td>CARBON DIOXIDE</td>
<td>124-38-9</td>
<td>&gt;=1.5-&lt;5%</td>
</tr>
</tbody>
</table>

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.

Ingestion
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.

Notes to physician
Hazards: 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.
Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Water mist, Carbon dioxide (CO2), Dry chemical
Hazardous combustion products
   Aldehydes, carbon dioxide and carbon monoxide, organic compounds, Hydrocarbons

Precautions for fire-fighting
   Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

NFPA Flammable and Combustible Liquids Classification
   Flammable Liquid Class IA

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
   For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks).

Environmental precautions
   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.

Methods for cleaning up
   Absorb liquid on vermiculite, floor absorbent or other absorbent material.

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. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-
conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. Hydrocarbon solvents are basically nonconductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids.

Storage

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

<table>
<thead>
<tr>
<th>Compound</th>
<th>OSHA Z1</th>
<th>ACGIH</th>
<th>NIOSH</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC</td>
<td>64742-89-8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OSHA Z1</td>
<td>time weighted average</td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>time weighted average</td>
<td>300 ppm</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>time weighted average</td>
<td>1,370 mg/m3</td>
<td></td>
</tr>
<tr>
<td>ETHYL ETHER</td>
<td>60-29-7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>time weighted average</td>
<td>400 ppm</td>
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</tr>
<tr>
<td>ACGIH</td>
<td>Short term exposure limit</td>
<td>500 ppm</td>
<td></td>
</tr>
<tr>
<td>OSHA Z1</td>
<td>Permissible exposure limit</td>
<td>400 ppm</td>
<td>1,200 mg/m3</td>
</tr>
<tr>
<td>OSHA Z1</td>
<td>Permissible exposure limit</td>
<td>400 ppm</td>
<td></td>
</tr>
<tr>
<td>CARBON DIOXIDE</td>
<td>124-38-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>time weighted average</td>
<td>5,000 ppm</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>Short term exposure limit</td>
<td>30,000 ppm</td>
<td></td>
</tr>
<tr>
<td>NIOSH</td>
<td>Recommended exposure limit (REL):</td>
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<td>9,000 mg/m3</td>
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<tr>
<td>NIOSH</td>
<td>Recommended exposure limit (REL):</td>
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</tr>
<tr>
<td>NIOSH</td>
<td>Short term exposure limit</td>
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<tr>
<td>NIOSH</td>
<td>Short term exposure limit</td>
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<tr>
<td>OSHA Z1</td>
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</tr>
<tr>
<td>OSHA Z1</td>
<td>Permissible exposure limit</td>
<td>9,000 mg/m3</td>
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</tr>
</tbody>
</table>

General advice

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect
exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

**Exposure controls**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

**Eye protection**

Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

**Skin and body protection**

Wear resistant gloves (consult your safety equipment supplier). Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

**Respiratory protection**

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>aerosol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
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<td>Colour</td>
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<tr>
<td>Odour</td>
<td>No data</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
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<tr>
<td>pH</td>
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<td>Flash point</td>
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<td>Evaporation rate</td>
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</tr>
<tr>
<td>Lower explosion limit/Upper explosion limit</td>
<td>1.05 %(V) / 36.5 %(V)</td>
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</tbody>
</table>
10. STABILITY AND REACTIVITY

Stability
Stable.

Conditions to avoid
Heat, flames and sparks.

Incompatible products
halogens, Strong oxidizing agents

Hazardous decomposition products
Aldehydes, carbon dioxide and carbon monoxide, organic compounds, Hydrocarbons

Hazardous reactions
Product will not undergo hazardous polymerization.

Thermal decomposition
No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC
ETHYL ETHER
CARBON DIOXIDE
LD50 Rat: > 8,000 mg/kg
LD50 Rat: 3,230 - 3,920 mg/kg
no data available

Acute inhalation toxicity
SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC
ETHYL ETHER
LC50 Rat: 3400 ppm, 4 h
LC50 Rat: 32,000 mg/l, 4 h
CARBON DIOXIDE : no data available

**Acute dermal toxicity**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : LD 50 Rat: > 4,000 mg/kg
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

### 12. ECOLOGICAL INFORMATION

**Biodegradability**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

**Bioaccumulation**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

**Ecotoxicity effects**

**Toxicity to fish**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

**Toxicity to daphnia and other aquatic invertebrates.**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

**Toxicity to algae**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

**Toxicity to bacteria**
PYROIL® REGULAR STARTING FLUID
PYSFR11

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

**Biochemical Oxygen Demand (BOD)**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

**Chemical Oxygen Demand (COD)**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

**Additional ecological information**

SOLVENT NAPHTHA (PETROLEUM), LIGHT ALIPHATIC : no data available
ETHYL ETHER : no data available
CARBON DIOXIDE : no data available

### 13. DISPOSAL CONSIDERATIONS

**Waste disposal methods**

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

### 14. TRANSPORT INFORMATION

**REGULATION**

<table>
<thead>
<tr>
<th>ID NUMBER</th>
<th>PROPER SHIPPING NAME</th>
<th>*HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY.</th>
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<tbody>
<tr>
<td>UN</td>
<td>AEROSOLES</td>
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**MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES**
INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

<table>
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<tr>
<th>UN</th>
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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

<table>
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<th>Aerosols, flammable (engine starting fluid)</th>
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INTERNATIONAL MARITIME DANGEROUS GOODS

<table>
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<tr>
<th>UN</th>
<th>AEROSOLS</th>
<th>2.1</th>
<th>LIMITED QUANTITY</th>
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</table>

TRANSPORT CANADA - INLAND WATERWAYS

<table>
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<tr>
<th>UN</th>
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TRANSPORT CANADA - RAIL

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TRANSPORT CANADA - ROAD

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<th>UN</th>
<th>AEROSOLS</th>
<th>2.1</th>
</tr>
</thead>
</table>

U.S. DOT - INLAND WATERWAYS

| 1950 | ORM-D, CONSUMER COMMODITY | ORM |

U.S. DOT - RAIL

| 1950 | ORM-D, CONSUMER COMMODITY | ORM |

U.S. DOT - ROAD

| 1950 | ORM-D, CONSUMER COMMODITY | ORM |

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

15. REGULATORY INFORMATION
California Prop. 65
WARNING! This product contains a chemical known in the State of California to cause cancer.

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

SARA Hazard Classification
Acute Health Hazard
Fire Hazard
Sudden Release of Pressure Hazard

New Jersey RTK Label Information
n-HEPTANE 142-82-5
ETHYL ETHER 60-29-7
CARBON DIOXIDE 124-38-9

Pennsylvania RTK Label Information
n-HEPTANE 142-82-5
ETHYL ETHER 60-29-7
CARBON DIOXIDE 124-38-9
BENZENE 71-43-2

Notification status
EU. EINECS y (positive listing)
US. Toxic Substances Control Act y (positive listing)
Australia. Industrial Chemical (Notification and Assessment) Act y (positive listing)
Japan. Kashin-Hou Law List n (Negative listing)
Korea. Toxic Chemical Control Law (TCCL) List y (positive listing)
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act y (positive listing)
China. Inventory of Existing Chemical Substances y (positive listing)
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand y (positive listing)

Reportable quantity - Product
US. EPA CERCLA Hazardous Substances (40 CFR 302) 511 lbs
### Reportable quantity-Components

<table>
<thead>
<tr>
<th>Component</th>
<th>HMIS</th>
<th>NFPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL ETHER 60-29-7</td>
<td>60-29-7</td>
<td>60-29-7</td>
</tr>
<tr>
<td>100 lbs</td>
<td>2</td>
<td>1</td>
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</table>

### Health
- HMIS: 2
- NFPA: 1

### Flammability
- HMIS: 4
- NFPA: 4

### Physical hazards
- HMIS: 0
- NFPA: 0

### Instability
- HMIS: 0
- NFPA: 0

### Specific Hazard
- HMIS: --
- NFPA: --

### 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. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).