1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: PYROIL GLASS CLEANER 12/18 OZ
General or Generic ID: AUTOMOTIVE CHEMICAL

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

<table>
<thead>
<tr>
<th>Ingredient(s)</th>
<th>CAS Number</th>
<th>% (by weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYLENE GLYCOL MONOBUTYL ETHER</td>
<td>111-76-2</td>
<td>0.2-10.0</td>
</tr>
<tr>
<td>ISOBUTANE</td>
<td>75-28-5</td>
<td>0.0-8.0</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Potential Health Effects

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

Skin
Can cause skin irritation. Prolonged or repeated contact may dry and crack the skin. Passage through the skin may add to toxic effects from breathing or swallowing.

Swallowing
Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation
Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

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
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: blood abnormalities, liver abnormalities, anemia,
spleen damage, testis damage, kidney damage, lung damage.

Developmental Information
This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.

Cancer Information
Ethylene glycol monobutyl ether has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain.

Other Health Effects
No data

Primary Route(s) of Entry
Inhalation, Skin absorption, 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.

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, 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
Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin.

5. FIRE FIGHTING MEASURES

Flash Point
Not applicable

Explosive Limit
(for component) Lower 1.1 Upper 10.6 %

Autoignition Temperature
No data
Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, various hydrocarbons.

Fire and Explosion Hazards
No data

Extinguishing Media
alcohol foam, water fog, 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 - 0, Flammability - 0, Reactivity - 0

6. ACCIDENTAL RELEASE MEASURES

Small Spill
Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood.

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.

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
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). natural rubber, Wear normal work clothing covering arms and legs.

Respiratory Protections
Not required under normal conditions of use.

Engineering Controls
Not required under normal conditions of use.

Exposure Guidelines
Component
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ETHYLENE GLYCOL MONOBUTYL ETHER (111-76-2)
OSHA VPEL 25.000 ppm - TWA ((Skin))
ACGIH TLV 20.000 ppm - TWA ((Skin))

ISOBUTANE (75-28-5)
No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 212.0 F (100.0 C)

Vapor Pressure
(for component) 17.500 mmHg

Specific Vapor Density
> 1.000 @ AIR=1

Specific Gravity
1.000 - 1.020 @ 77.00 F

Liquid Density
7.950 lbs/gal @ 77.00 F
1.010 kg/l @ 25.00 C

Percent Volatiles (Including Water)
No data

Evaporation Rate
FASTER THAN ETHYL ETHER

Appearance
No data

State
LIQUID

Physical Form
AEROSOL

Color
No data

Odor
No data

pH
9.0 - 10.0
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 mineral acids.

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
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44643 AMMONIA

15. REGULATORY INFORMATION

US Federal Regulations
CERCLA RQ - 40 CFR 302.4
None

SARA 302 Components - 40 CFR 355 Appendix A
None

Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(X) Delayed(X) Fire( ) Reactive( ) Sudden Release of Pressure( )

SARA 313 Components - 40 CFR 372.65
Section 313 Component(s) CAS Number
ETHYLENE GLYCOL MONOBUTYL ETHER 111-76-2

International Regulations
Inventory Status
Not determined

State and Local Regulations
California Proposition 65
None

New Jersey RTK Label Information
ETHANOL, 2-BUTOXY- 111-76-2
PROPANE, 2-METHYL- 75-28-5

Pennsylvania RTK Label Information
ETHANOL, 2-BUTOXY- 111-76-2
PROPANE, 2-METHYL- 75-28-5

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.