1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: PYROIL WINDSHIELD DEICER 12/11.5 OZ
General or Generic ID: SOLVENT BLEND

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

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)                                CAS Number    % (by weight)
-------------------------------------------- ------------- -------------
METHYL ALCOHOL                                     67-56-1      62.0
ETHYLENE GLYCOL                                   107-21-1       6.0
CARBON DIOXIDE                                    124-38-9    0.0- 8.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
Can cause eye irritation.

Skin
May cause mild skin irritation. Prolonged or repeated contact may dry and crack the skin. Although rare, skin contact with ethylene glycol may cause allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects). Passage through the skin may add to toxic effects from breathing or swallowing.

Swallowing
Swallowing this material 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 excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, involuntary eye movement, visual impairment (including blindness), 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: liver abnormalities, spleen damage, nervous system damage, eye damage, lung damage, brain damage, kidney damage, visual impairment, kidney damage, liver damage.

Developmental Information
Ethylene glycol has caused birth defects in animal studies at high oral doses.

Cancer Information
No data

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, 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 product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. This product contains ethylene glycol. Ethanol decreases the metabolism of ethylene glycol to toxic metabolites. Ethanol should be administered as soon as possible in cases of severe
poisoning since the elimination half-life of ethylene glycol is 3 hours. If medical care will be delayed several hours, give the patient three to four 1-ounce oral “shots” of 86-proof or higher whiskey before or during transport to the hospital. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such, may be used as an antidote in the treatment of ethylene glycol poisoning. Hemodialysis effectively removes ethylene glycol and its metabolites from the body. Effects of acute ethylene glycol poisoning appear in three fairly distinct stages. The initial stage occurs shortly after exposure, lasts 6-12 hours, and is characterized by central nervous system effects (transient exhilaration, nausea, vomiting, and in severe cases, coma, convulsions, and possible death. The second stage lasts from 12-36 hours after exposure and is initiated by the onset of coma. This phase is characterized by tachypnia, tachycardia, mild hypotension, cyanosis, and in severe cases, pulmonary edema, bronchopneumonia, cardiac enlargement, and congestive failure. The final stage occurs 24-72 post-exposure and is characterized by renal failure ranging from a mild increase in blood urea nitrogen and creatinine followed by recovery to complete anuria with acute tubular necrosis that can lead to death. Oxaluria is found in most cases. The most significant laboratory finding in ethylene glycol intoxication is severe metabolic acidosis. 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 3.2 Upper 36.5 %

Autoignition Temperature
No data

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide.

Fire and Explosion Hazards
Vapors are heavier than air and may travel along the ground or be moved by ventilation and ignited by heat, pilot lights, other flames and 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
alcohol foam, water fog.

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 - 3, 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. 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.

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/PERSOanal 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
Not required under normal conditions of use.

Engineering Controls
Not required under normal conditions of use.

Exposure Guidelines
Component
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METHYL ALCOHOL (67-56-1)
OSHA VPEL 200.000 ppm - TWA ((Skin))
OSHA VPEL 250.000 ppm - STEL ((Skin))
ACGIH TLV 200.000 ppm - TWA ((Skin))
ACGIH TLV 250.000 ppm - STEL ((Skin))
9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 147.0 F (63.8 C) @ 760 mmHg

Vapor Pressure
(for component) 97.680 mmHg @ 68.00 F

Specific Vapor Density
> 1.000 @ AIR=1

Specific Gravity
.875 - .895 @ 77.00 F

Liquid Density
7.160 lbs/gal @ 77.00 F
.885 kg/l @ 25.00 C

Percent Volatiles (Including Water)
No data

Evaporation Rate
FASTER THAN ETHYL ETHER

Appearance
CLEAR

State
LIQUID

Physical Form
No data

Color
COLORLESS

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.

Chemical Stability
    Stable.

Incompatibility
    Avoid contact with: strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

    No data

12. ECOLOGICAL INFORMATION

    No data

13. DISPOSAL CONSIDERATION

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

14. TRANSPORT INFORMATION

DOT Information - 49 CFR 172.101
    DOT Description:
        AEROSOLS, 2.1, UN 1950

    Container/Mode:
        CASES/SURFACE - NO EXCEPTIONS

    NOS Component:
        None

RQ (Reportable Quantity) - 49 CFR 172.101
    Product Quantity (lbs) Component
    ---------------------------------------- ---------
    -                                    METHANOL

15. REGULATORY INFORMATION

US Federal Regulations
    CERCLA RQ - 40 CFR 302.4
    Component
    ----------------------------------------  ---------
    METHYL ALCOHOL                        5000
    ETHYLENE GLYCOL                       5000

    SARA 302 Components - 40 CFR 355 Appendix A
    None
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.