1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: PYROIL ALL-PURPOSE CLNR & DEGR 1/5 GA
General or Generic ID: AUTOMOTIVE CHEMICAL

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

<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>1.0- 10.0</td>
</tr>
<tr>
<td>SODIUM METASILICATE PENTAHYDRATE</td>
<td>6834-92-0</td>
<td>1.0- 10.0</td>
</tr>
<tr>
<td>TRISODIUM PHOSPHATE ANHYDROUS</td>
<td>7601-54-9</td>
<td>1.0- 10.0</td>
</tr>
<tr>
<td>SURFACTANTS</td>
<td>9016-45-9</td>
<td>1.0- 10.0</td>
</tr>
<tr>
<td>COCO DIETHANOLAMIDE</td>
<td>68603-42-9</td>
<td>1.0- 10.0</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
Material is corrosive to eyes. May cause burns.

Skin
Can cause skin burns and other permanent skin damage. Passage of this material through the skin may be harmful or fatal.

Swallowing
Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestinal irritation, burns and tissue damage. Shock may occur.

Inhalation
It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing this material may be harmful or fatal. May cause severe irritation and burns to the nose, throat, and respiratory tract. 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: irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), difficult breathing, blood in the urine, blood abnormalities (breakage of red blood cells),
kidney damage, liver damage, coma, and death.

Target Organ Effects
Acute lethal exposure to ethylene glycol monobutyl ether in animal studies has resulted in congestion of organs including kidney, spleen, and lung. 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.

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
Diethanolamine and coco diethanolamide have been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. 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, Eye contact.

4. FIRST AID MEASURES

Eyes
If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.

Skin
Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before reuse and decontaminate or discard contaminated shoes.

Swallowing
Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. 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, lung (for example, asthma-like conditions), liver, kidneys, blood-forming system.

5. FIRE FIGHTING MEASURES

Flash Point
172.0 F (77.7 C) PMCC

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, nitrogen compounds, various hydrocarbons.

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
regular foam, carbon dioxide, dry chemical.

Fire Fighting Instructions
Water may be used to keep fire-exposed containers cool until fire is out. 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 - 3, Flammability - 1, 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. Persons not wearing proper personal protective equipment should be excluded from area of spill.

Large Spill
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. Eliminate all ignition sources (flares, flames, including pilot lights, electrical sparks).
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 repeated contact. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
Chemical splash goggles and face shield (8" min.) in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. (Consult your industrial hygienist.)

Skin Protection
Wear impervious gloves (consult your safety equipment supplier). To prevent 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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ETHYLENE GLYCOL MONOBUTYL ETHER (111-76-2)
OSHA VPEL 120.000 mg/m3 - TWA (Skin)
OSHA VPEL 25.000 ppm - TWA (Skin)
ACGIH TLV 20.000 ppm - TWA (Skin)

SODIUM METASILICATE PENTAHYDRATE (6834-92-0)
No exposure limits established
TRISODIUM PHOSPHATE ANHYDROUS (7601-54-9)
No exposure limits established

SURFACTANTS (9016-45-9)
No exposure limits established

COCO DIETHANOLAMIDE (68603-42-9)
No exposure limits established

9. PHYSICAL AND CHEMICAL PROPERTIES

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

Vapor Pressure
(for component) 17.500 mmHg

Specific Vapor Density
No data

Specific Gravity
1.030 - 1.050 @ 60.00 F

Liquid Density
8.660 lbs/gal @ 60.00 F
1.040 kg/l @ 15.60 C

Percent Volatiles (Including Water)
No data

Evaporation Rate
No data

Appearance
CLEAR

State
LIQUID

Physical Form
No data

Color
RED

Odor
CINNAMON

pH
12.8

10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.

Hazardous Decomposition
May form: carbon dioxide and carbon monoxide, nitrogen compounds,
various hydrocarbons.

Chemical Stability
Stable. This product should not be heated above 140 F (60 C) in the presence of aluminum due to excessive corrosion and potential chemical reaction releasing flammable hydrogen gas.

Incompatibility
Avoid contact with: acids, heat, peroxides, strong alkalis, strong bases, strong bleaching agents, 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:
CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.,8,UN3266,II

Container/Mode:
CASES/SURFACE - NO EXCEPTIONS

NOS Component:
SODIUM METASILICATE
TRISODIUM PHOSPHATE

RQ (Reportable Quantity) - 49 CFR 172.101
Product Quantity (lbs) Component
--------------------------------- ---------------
49801 SODIUM DODECYLBENZENESULFONATE

15. REGULATORY INFORMATION
US Federal Regulations
CERCLA RQ - 40 CFR 302.4
Component Component
--------------------------------- ---------------
TRISODIUM PHOSPHATE 5000

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
---------------------------------------- -------------
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
2-BUTOXY ETHANOL     111-76-2
SODIUM PHOSPHATE, TRIBASIC     7601-54-9

Pennsylvania RTK Label Information
ETHANOL, 2-BUTOXY-     111-76-2
PHOSPHORIC ACID, TRISODIUM SALT     7601-54-9

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.

Percent Volatiles (Including Water)
No data

Evaporation Rate
No data

Appearance
CLEAR

State
LIQUID

Physical Form
Not applicable

Color
GREEN/BLUE

Odor
No data

pH
11.0 - 11.3
10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.

Hazardous Decomposition
No data

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:
Not Regulated

Container/Mode:
CASES/SURFACE - NO EXCEPTIONS

NOS Component:
None

RQ (Reportable Quantity) - 49 CFR 172.101
Not applicable

15. REGULATORY INFORMATION

US Federal Regulations
CERCLA RQ - 40 CFR 302.4

<table>
<thead>
<tr>
<th>Component</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>---------------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>SODIUM HYDROXIDE</td>
<td>1000</td>
</tr>
</tbody>
</table>

SARA 302 Components - 40 CFR 355 Appendix A
None
Section 311/312 Hazard Class - 40 CFR 370.2
Immediate(\text{x})   Delayed( )   Fire( )   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
SODIUM NITRATE 7631-99-4
SODIUM HYDROXIDE 1310-73-2

Pennsylvania RTK Label Information
NITRIC ACID SODIUM SALT 7631-99-4
SODIUM HYDROXIDE (NA(OH)) 1310-73-2

16. OTHER INFORMATION

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Last page