1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: PYROIL BRAKE PARTS CLEANER 1/5 GA
General or Generic ID: BRAKE PARTS CLEANER

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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TETRACHLOROETHENE                                 127-18-4   90.0-100.0

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
Can cause eye irritation.

Skin
Can cause 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 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 of vapor or mist is possible. Breathing this material may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8). Alcohol consumed before or after exposure may worsen harmful effects.

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), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), temporary changes in mood and behavior loss of coordination, confusion, irregular heartbeat, anesthesia,
liver damage, 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: kidney damage, liver 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
This material (or a component) causes cancer in laboratory animals and therefore may present a carcinogenic risk to humans. This material (or a component) is listed as a carcinogen by the International Agency for Research on Cancer and the National Toxicology Program.

Other Health Effects
No data

Primary Route(s) of Entry
Inhalation, Skin absorption, 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, 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
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, kidneys. 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
No data

Explosive Limit
No data

Autoignition Temperature
No data

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, chlorine, hydrogen chloride, phosgene, various hydrocarbons.

Fire and Explosion Hazards
Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. No flash to boiling point. Blends which contain a mixture of various hydrocarbon, oxygenated, and chlorinated solvents may, due to the volatility of the chlorinated solvents, become a combustible or flammable mixture if the volume of chlorinated solvents in the blend is reduced by evaporation during normal usage. The likelihood of this occurring increases as the temperature at which the blend is used increases. Therefore, all precautions relating to the use of a combustible or flammable solvent should be observed.

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 - 2, 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. 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.

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. All five gallon pails and larger metal containers including tank cars and tank trucks should be grounded and/or bonded when material is transferred.

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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TETRACHLOROETHENE (127-18-4)
OSHA VPEL 25.000 ppm - TWA
ACGIH TLV 25.000 ppm - TWA
ACGIH TLV 100.000 ppm - STEL

9. PHYSICAL AND CHEMICAL PROPERTIES
Boiling Point
(for product) 250.0 F (121.1 C) @ 760.00 mmHg

Vapor Pressure
(for product) 13.000 mmHg @ 68.00 F

Specific Vapor Density
5.760 @ AIR=1

Specific Gravity
1.618 - 1.622 @ 77.00 F

Liquid Density
13.520 lbs/gal @ 77.00 F
1.620 kg/l @ 25.00 C

Percent Volatiles (Including Water)
No data

Evaporation Rate
2.80 (N-BUTYL ACETATE )

Appearance
CLEAR

State
LIQUID

Physical Form
No data

Color
COLORLESS

Odor
MILDLY SWEET

pH
No data

Freezing Point
-8.1 F (-22.3 C)

10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.

Hazardous Decomposition
May form: carbon dioxide and carbon monoxide, chlorine, hydrogen chloride, phosgene, various hydrocarbons.

Chemical Stability
Stable.

Incompatibility
Avoid contact with: strong acids, strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION
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:
TETRACHLOROETHYLENE, 6.1, UN 1897, III

Container/Mode:
DRUMS/SURFACE - NO EXCEPTIONS

NOS Component:
None

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

15. REGULATORY INFORMATION

US Federal Regulations
CERCLA RQ - 40 CFR 302.4
Component
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TETRACHLOROETHYLENE 100

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
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TETRACHLOROETHYLENE (PERCHLOROETHYLENE) 127-18-4

International Regulations
Inventory Status
Not determined
State and Local Regulations

California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.

TETRACHLOROETHYLENE (PERCHLOROETHYLENE)

New Jersey RTK Label Information
TETRACHLOROETHYLENE 127-18-4

Pennsylvania RTK Label Information
ETHENE, TETRACHLORO- 127-18-4

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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