1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: MAC'S HEAVY DUTY PASTE RUBBING COMPOUND
SAP Material No: NM2300
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>SILICON DIOXIDE</td>
<td>14808-60-7</td>
<td>39.0- 49.0</td>
</tr>
<tr>
<td>ALIPHATIC PETROLEUM DISTILLATES</td>
<td>64742-47-8</td>
<td>20.0- 30.0</td>
</tr>
<tr>
<td>TALL OIL</td>
<td>61790-12-3</td>
<td>0.0-  9.0</td>
</tr>
<tr>
<td>PINE OIL</td>
<td>8002-09-3</td>
<td>0.0-  7.0</td>
</tr>
</tbody>
</table>

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.
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 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
No data

Developmental Information
No data

Cancer Information
The International Agency for Research on Cancer (IARC) and the National Toxicology Program have determined that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica in the form of quartz or cristobalite. In addition, IARC has determined that there is sufficient evidence for the carcinogenicity of quartz and cristobalite in experimental animals. Among individuals with silicosis, lung cancer occurs more frequently in those who smoke.

Other Health Effects
No data
MAC’S HEAVY DUTY PASTE RUBBING COMPOUND

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 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.
5. FIRE FIGHTING MEASURES

Flash Point

-17.7°C

Explosive Limit
No data

Autoignition Temperature
No data

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, 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
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 - 2, Reactivity - 0
6. ACCIDENTAL RELEASE MEASURES

Small Spill
Absorb liquid on vermiculite, floor absorbent or other absorbent material.

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/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 such as: neoprene, nitrile rubber. To prevent repeated or prolonged 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
----------
SILICON DIOXIDE (14808-60-7)
OSHA VPEL 0.100 mg/m3 - TWA respirable dust
ACGIH TLV 0.100 mg/m3 - TWA (this TLV is for the respirable fraction of dust)
ALIPHATIC PETROLEUM DISTILLATES (64742-47-8)
ACGIH TLV 200.000 mg/m3 - TWA ((Skin))
TALL OIL (61790-12-3)
No exposure limits established
PINE OIL (8002-09-3)
No exposure limits established
MAC'S HEAVY DUTY PASTE RUBBING COMPOUND

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) 212.0 °F (100.0 °C) @ 760 mmHg

Vapor Pressure
(for component) 17.500 mmHg @ 68.00 °F

Specific Vapor Density
> 1.000 @ AIR=1

Specific Gravity
No data

Liquid Density
No data

Percent Volatiles (Including Water)
No data

Evaporation Rate
SLOWER THAN ETHYL ETHER

Appearance
No data

State
LIQUID

Physical Form
EMULSION

Color
UNKNOWN

Odor
No data
MAC'S HEAVY DUTY PASTE RUBBING COMPOUND

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 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:  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
None
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
None

International Regulations
Inventory Status
Not determined

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.
MAC'S HEAVY DUTY PASTE RUBBING COMPOUND

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Potential Health Effects
Eye
  Can cause eye irritation.
Skin
  May cause mild skin irritation. Prolonged or repeated contact may dry and crack the skin.
MAC'S HEAVY DUTY PASTE RUBBING COMPOUND

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.

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Other Health Effects
No data
Primary Route(s) of Entry
No data

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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
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5. FIRE FIGHTING MEASURES

Flash Point
0.0 F (-17.7 C)

Explosive Limit
No data

Autoignition Temperature
No data

Hazardous Products of Combustion
May form: carbon dioxide and carbon monoxide, 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
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Fire Fighting Instructions
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NFPA Rating
Health - 1, Flammability - 2, Reactivity - 0
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7. HANDLING AND STORAGE

Handling
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Storage
Not applicable

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
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MAC'S HEAVY DUTY PASTE RUBBING COMPOUND

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Wear resistant gloves such as: neoprene, nitrile rubber. To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

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ACGIH TLV 0.025 mg/m3 - TWA
ALIPHATIC PETROLEUM DISTILLATES (64742-47-8)
OSHA VPEL 5.000 mg/m3 - TWA
ACGIH TLV 200.000 mg/m3 - TWA (Skin)
TALL OIL (61790-12-3)
No exposure limits established
PINE OIL (8002-09-3)
OTHER LIMIT 100.000 ppm - TWA
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

Specific Gravity
No data

Liquid Density
No data

Percent Volatiles (Including Water)
No data

Evaporation Rate

Appearance
No data

State

Physical Form

Color

Odor
No data

pH
9.0 – 10.0
MAC'S HEAVY DUTY PASTE RUBBING COMPOUND

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 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:
   Not Regulated
MAC’S HEAVY DUTY PASTE RUBBING COMPOUND

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
None

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
None

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.
SILICON DIOXIDE

16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warrantied 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.