1. **Product Identification**

   - **Synonyms**: Shock absorbers; Gas charged shock absorbers; MacPherson struts; MacPherson cartridges; Monotube shock absorbers
   - **CAS No.**: N/A
   - **Molecular Weight**: N/A
   - **Chemical Formula**: N/A
   - **Product Codes**: All pressurized Gabriel shocks & struts including - Ultra series (33xxx, 44xxx, 46xxx, 51xxx, 52xxx, 53xxx, 55xxx, 56xxx, 59xxx, 60xxx, 62xxx, 63xxx, 64xxx, 65xxx, 67xxx, 68xxx, 69xxx, 70xxx, 74xxx, 89xxx, 96xxx, 102xxx, 120xxx, 121xxx, 127xxx, 128xxx, 130xxx, 739xxx, 753xxx, 762xxx, 763xxx, 764xxx, 771xxx, 772xxx); Proguard series (61xxx, 71xxx, 111xxx, 122xxx, 770xxx); Max Control monotubes (75xxx, 77xxx, 78xxx, 79xxx, 773xxx); Guardian series (81xxx, 89xxx, 107xxx, 108xxx, 774xxx)
   - **Contact Information**: Gabriel Ride Control
     39300 Country Club Dr
     Farmington Hills, MI 48331  US
     248-247-7600

2. **Hazards Identification**

   - **GHS-US Classification**: Gasses under pressure – compressed gas
   - **Classification of intact product**: Acute toxicity – 5
     Mild skin irritation – 3
     Eye irritation – 2B
   - **Signal word (GHS-US)**: Warning
   - **Hazard statements (GHS-US)**:
     H280-Contains gas under pressure; may explode if heated
     H303-May be harmful if swallowed
     H316-Causes mild skin irritation
     H320-Causes eye irritation
   - **Precautionary statements (GHS-US)**
     if exposed to hydraulic fluid: P264 - Wash face, hands and any exposed skin thoroughly after handling.

3. **Composition/Information on Ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Formula</th>
<th>CAS No.</th>
<th>Mass %</th>
<th>ACGIH (TLV) (mg/M³)</th>
<th>OSHA (PEL) (mg/M³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>N/A</td>
<td>not est.</td>
<td>60-85%</td>
<td>5*</td>
<td>5*</td>
</tr>
<tr>
<td><strong>Hydraulic fluid:</strong></td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum distillates (one or more of the following):</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>solvent dewaxed light paraffinic</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>solvent refined light paraffinic</td>
<td>64742-56-9</td>
<td></td>
<td></td>
<td>5-20%</td>
<td>5</td>
</tr>
<tr>
<td>Paraffinic medium oil</td>
<td>64741-89-5</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Naphthenic light oil</td>
<td>64741-50-0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-Decene, dimmer, hydrogenated</td>
<td>686649-11-6</td>
<td></td>
<td>60-6%</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>White mineral oil</td>
<td>8042-47-5</td>
<td></td>
<td>&lt; 0.5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Lubricating oils, petroleum, C15-30, hydrotreated neutral oil-based</td>
<td>72623-86-0</td>
<td></td>
<td>&lt; 0.5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Phosphorodithioic acid, O,O-di-C14-alkyl esters, zinc salts</td>
<td>68649-42-3</td>
<td></td>
<td>&lt; 0.5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Oleic acid</td>
<td>112-80-1</td>
<td></td>
<td>&lt; 0.5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Tributylamine</td>
<td>102-82-9</td>
<td></td>
<td>&lt; 0.5</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td><strong>Sintered iron</strong></td>
<td>Fe</td>
<td>7439-89-6</td>
<td>0-10%</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Natural rubber</strong></td>
<td>NR</td>
<td>not est.</td>
<td>0-10%</td>
<td>not est.</td>
<td>not est.</td>
</tr>
<tr>
<td><strong>Nitrile rubber</strong></td>
<td>NBR</td>
<td>not est.</td>
<td>0-5%</td>
<td>not est.</td>
<td>not est.</td>
</tr>
<tr>
<td><strong>Nylon</strong></td>
<td>PA66</td>
<td>not est.</td>
<td>0-5%</td>
<td>not est.</td>
<td>not est.</td>
</tr>
<tr>
<td><strong>Pressurized nitrogen gas</strong></td>
<td>N₂</td>
<td>7727-37-9</td>
<td>&lt; 1%</td>
<td>not est.</td>
<td>not est.</td>
</tr>
<tr>
<td><strong>Chrome plating</strong></td>
<td>Cr</td>
<td>7440-47-3</td>
<td>&lt; 1%</td>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td><strong>Teflon</strong></td>
<td>PTFE</td>
<td>not est.</td>
<td>&lt; 1%</td>
<td>not est.</td>
<td>not est.</td>
</tr>
</tbody>
</table>

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*Effective Date: 10 February 2015 (rev E)*
4. **First Aid Measures**
   - **Inhalation**: N/A
   - **Ingestion**: Harmful if liquid portion of shock or strut is swallowed. Do not induce vomiting. Seek medical assistance.
   - **Skin Contact**: If liquid portion of shock or strut comes into contact with clothing or skin, wash with soap and water. Remove contaminated clothing.
   - **Eye Contact**: Flush with water for 15 minutes. If irritation remains consult a physician.

5. **Fire Fighting Measures**
   - **Fire**: Remove product from flames if safe to do so. Otherwise stay clear until professional help arrives.
   - **Explosion**: Contents under pressure.
   - **Fire Extinguishing Media**: Dry Chemical or CO₂
   - **Special Information**: Store away from high heat sources (> 100 °C (212 °F))

6. **Accidental Release Measures**
   - Shocks and Struts, based on their individualistic nature, do not pose a release hazard on a large scale. Should a shock or strut leak fluid, clean and dispose of the fluid in accordance with local oil disposal requirements. Shock or strut (metal housing) may be disposed of following local general waste disposal guidelines.

7. **Handling and Storage**
   - Contents may be under pressure. Store away from direct flame or heat sources (> 100 °C (212 °F)).

8. **Exposure Controls/Personal Protection**
   - **Airborne Exposure Limits**: None
   - **Ventilation System**: N/A
   - **Personal Respirators (NIOSH Approved)**: N/A
   - **Skin Protection**: N/A
   - **Eye Protection**: N/A

9. **Physical and Chemical Properties**
   - **Appearance**: Metal Shock or Strut
   - **Odor**: None
   - **Solubility**: N/A
   - **Specific Gravity**: N/A
   - **PH**: N/A
   - **% Volatiles by volume @ 21 °C (70 °F)**: N/A
   - **Boiling Point**: N/A
   - **Melting Point**: N/A
   - **Vapor Density (Air = 1)**: N/A
   - **Vapor Pressure (mm Hg)**: N/A
   - **Evaporation Rate (BuAc = 1)**: N/A

10. **Stability and Reactivity**
    - **Stability**: Stable
    - **Hazardous Decomposition Products**: N/A
    - **Hazardous Polymerization**: N/A
    - **Incompatibilities**: N/A
    - **Conditions to Avoid**: N/A

11. **Toxicological Information**
    - **Ingredient**: No constituents are known, suspected, or anticipated human carcinogens. Chromium has been irreversibly bound via plating process and presents no hazard.
12. **Ecological Information**
   - Environmental Fate: N/D
   - Environmental Toxicity: Same as any very small quantity (10ml) of oil.

13. **Disposal Considerations**
   - Shocks and struts, based on their individualistic nature, do not pose a release hazard on a large scale.
   - To avoid injury with pressurized shock absorbers (piston rod extends by itself after being compressed), drill or cut in a controlled fashion to relieve gas pressure prior to opening.
   - Shock fluid should be disposed in accordance with local oil disposal requirements. Shock or strut (metal housing) may be disposed of following local general waste disposal guidelines.

14. **Transport Information**
   - Non gas charged shocks and struts are not subject to transportation restrictions.
   - Gas charged shocks and struts meet the following exceptions (special provisions) from hazardous materials regulations and as such are not regulated for transport by ground, rail, air, or sea:
     - 49 CFR §173.306(f)(4)
     - ICAO / IATA – special provision A114
     - IMO / IMDG – special provision 283
   - The following classification is provided for convenience only:
     - **US DOT**: 49 CFR §172.101
     - **Proper Shipping Name**: Accumulators Pressurized Pneumatic or Hydraulic
     - **Hazard Class**: 2.2
     - **UN**: UN3164
     - **Packing Group**: 208

15. **Regulatory Information**
   - **Ingredient**: N/A
   - **WHMIS (Canada)**: Class A; compressed gas
   - **SARA Title III Classification**: Sudden Release of Pressure
   - **TSCA**: N/A
   - **EC**: N/A
   - **Japan**: N/A
   - **Australia**: N/A
   - **Chemical Weapons Convention**: N/A

16. **Other Information**
   - **HMIS Classification**
     - Health Rating (intact product): 0
     - Flammability Rating (intact product): 0
     - Physical Hazard (intact product): 1
     - Personal Protection Equipment: N/A
   - **Label Hazard Warning**: None
   - **Label Precautions**: None
   - **Label First Aid**: None
   - **Revision Information**: 10 Feb 2015 (rev. E); Original release 03 Dec 2009 (was #ARP002 28 Jun 2000)
   - **Disclaimer**: Ride Control, LLC (Gabriel Ride Control) provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. RIDE CONTROL, LLC MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, RIDE CONTROL, LLC WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

Prepared by: Ride Control, LLC; 39300 Country Club Dr; Farmington Hills, MI 48331

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