Automotive Shock Absorbers/Struts

Safety Data Sheet


Date of issue: 11/24/2014   Revision date: 11/20/2018   Version: 2.1

SECTION 1: Identification

1.1. Product identifier

Product name : Automotive Shock Absorbers/Struts
Product code : Not available

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Automotive - Suspension systems.
Product description : This product is a metallic shock/strut that contains 100-400mL of Hydraulic oil & .35 Mpa pressurized nitrogen gas sealed within the damper.

1.3. Details of the supplier of the safety data sheet

Manufacturer
KYB Americas Corporation
2625 North Morton
Franklin, IN 46131 - USA
T (317) 736-7774

1.4. Emergency telephone number

Emergency number : (800) 424-9300

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

GHS classification
This product as sold is classified as an “article” under the OSHA HAZCOM 2012, Subpart Z - Toxic & Hazardous Substances and as per the Hazardous Products Act, Paragraph 12(i), and as such is exempt from the requirement for classification. However, there is Shock Oil mixture and nitrogen gas sealed in the article that may present the following hazards if released:
Gases Under Pressure - Compressed gas
Aspiration Hazard 1

2.2. Label elements

GHS labelling
This product as sold is classified as an “article” under the OSHA HAZCOM 2012, Subpart Z - Toxic & Hazardous Substances and as per the Hazardous Products Act, Paragraph 12(i), and as such is exempt from the requirement for labeling. For reference, the label elements that would apply to the hazards for the Shock Oil mixture and nitrogen gas are as follows:

Hazard pictograms (GHS)

GHS04
GHS08

Signal word (GHS) : Danger
Hazard statements (GHS) : Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways.
Precautionary statements (GHS) : If swallowed: Immediately call a poison center or doctor. Do NOT induce vomiting. Protect from sunlight. Store in a well-ventilated place. Store locked up. Dispose of contents and container in accordance with all local, regional, national and international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS)

Not applicable

SECTION 3: Composition/Information on Ingredients

3.1. Substance

Not applicable
3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel/Rubber</td>
<td>Not available</td>
<td>85</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light paraffinic</td>
<td>(CAS No) 64742-55-8</td>
<td>21.6</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light naphthenic</td>
<td>(CAS No) 64742-53-6</td>
<td>4.8</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>(CAS No) 7727-37-9</td>
<td>0.1</td>
</tr>
</tbody>
</table>

SECTION 4: First Aid Measures

4.1. Description of first aid measures

First-aid measures after inhalation: If nitrogen gas or oil mists/vapours are inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical advice/attention.

First-aid measures after skin contact: In case of contact with the Shock Oil mixture, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid measures after eye contact: In case of contact with the Shock Oil mixture, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion: If the Shock Oil mixture is swallowed, do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: If damper seal is broken then gas, mists or vapours may leak and cause respiratory tract irritation.

Symptoms/injuries after skin contact: Chemical exposure may cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact: Chemical exposure may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/injuries after ingestion: Shock Oil mixture may be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting Measures

5.1. Extinguishing media

Suitable extinguishing media: Foam, carbon dioxide, or dry chemical.

Unsuitable extinguishing media: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard: Products of combustion may include, and are not limited to: oxides of carbon and oxides of nitrogen. Gas pressurized units will vent (at seal) when exposed to fire. Heat will increase pressure and may lead to the receptacle bursting.

5.3. Advice for firefighters

Firefighting instructions: Use water to keep containers exposed to fire cool. Use indirect water spray or water fog.

Protection during firefighting: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up

For containment: Eliminate sources of ignition. Contain and/or absorb Shock Oil mixture spill with inert material (e.g. sand, vermiculite), then place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up: Pick up large pieces, then place in a suitable container. Sweep up any excess absorbant. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.
SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Precautions for safe handling: Keep away from sources of ignition - No smoking. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. When using do not eat, drink or smoke. Pressurized container: Do not pierce or burn, even after use.

Hygiene measures: Wash hands before eating, drinking, or smoking. Launder contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Keep out of reach of children. Store away from direct sunlight or other heat sources. Store in a cool, dry, well-ventilated place.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>IDLH</td>
<td>IDLH (mg/m³)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Distillates (petroleum), hydrotreated light naphthenic (64742-53-6)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH TWA (mg/m³)</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
</tr>
<tr>
<td>IDLH</td>
<td>IDLH (mg/m³)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Nitrogen (7727-37-9)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below recommended exposure limits.

Hand protection: Wear chemically resistant protective gloves.

Eye protection: Safety glasses or goggles are recommended when using product.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls: Maintain levels below Community environmental protection thresholds.

Other information: Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Shock/strut: Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shock Oil mixture: Liquid</td>
<td></td>
</tr>
<tr>
<td>Nitrogen gas: Gas</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Hydraulic oil &amp; nitrogen gas in sealed metallic shock/struts.</td>
</tr>
<tr>
<td>Colour</td>
<td>Metallic</td>
</tr>
<tr>
<td>Odour</td>
<td>No data available</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butylacetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
</tbody>
</table>
Automotive Shock Absorbers/Struts
Safety Data Sheet

Boiling point: No data available
Flash point: Shock Oil mixture: 140 - 155 °C (284 - 311°F)
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Flammability (solid, gas): Not flammable
Vapour pressure: No data available
Relative vapour density at 20 °C: No data available
Relative density: No data available
Solubility: No data available
Log Pow: No data available
Log Kow: No data available
Viscosity, kinematic: No data available
Viscosity, dynamic: No data available
Explosive properties: No data available
Oxidising properties: No data available
Explosive limits: No data available

9.2. Other information
No additional information available

SECTION 10: Stability and Reactivity

10.1. Reactivity
No dangerous reaction known under conditions of normal use.

10.2. Chemical stability
Stable under normal storage conditions. Do not store at temperatures above 50 °C (122 °F).

10.3. Possibility of hazardous reactions
No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

10.5. Incompatible materials
Strong mineral acids, oxidizers.

10.6. Hazardous decomposition products
May include, and are not limited to: oxides of carbon and oxides of nitrogen.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity: Not classified.

### Distillates (petroleum), hydrotreated light paraffinic (64742-55-8)

<table>
<thead>
<tr>
<th>Endpoint</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LC50 inhalation rat</td>
<td>3900 mg/m³/4h</td>
</tr>
</tbody>
</table>

### Skin corrosion/irritation
Based on available data, the classification criteria are not met.

### Serious eye damage/irritation
Based on available data, the classification criteria are not met.

### Respiratory or skin sensitisation
Based on available data, the classification criteria are not met.

### Germ cell mutagenicity
Based on available data, the classification criteria are not met.

### Reproductive toxicity
Based on available data, the classification criteria are not met.

### Specific target organ toxicity (single exposure)
Based on available data, the classification criteria are not met.
Automotive Shock Absorbers/Struts
Safety Data Sheet

Specific target organ toxicity (repeated exposure) : Based on available data, the classification criteria are not met.
Aspiration hazard : May be fatal if swallowed and enters airways.
Symptoms/injuries after inhalation : If damper seal is broken then gas, mists or vapours may leak and cause respiratory tract irritation
Symptoms/injuries after skin contact : Chemical exposure may cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/injuries after eye contact : Chemical exposure may cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/injuries after ingestion : Shock Oil mixture may be fatal if swallowed and enters airways. This product may be aspirated into the lungs and cause chemical pneumonitis. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological Information
12.1. Toxicity
Ecology - general : May cause long-term adverse effects in the aquatic environment.
12.2. Persistence and degradability
Automotive Shock Absorbers/Struts
Persistence and degradability : Not established.
12.3. Bioaccumulative potential
Automotive Shock Absorbers/Struts
Bioaccumulative potential : Not established.
12.4. Mobility in soil
No additional information available
12.5. Other adverse effects
Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal Considerations
13.1. Waste treatment methods
Waste disposal recommendations : This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport Information
Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)
In accordance with DOT/TDG
UN-No. (DOT/TDG) : UN3164
Proper Shipping Name (DOT/TDG) : Articles, pressurized pneumatic or hydraulic (containing non-flammable gas).
DOT/TDG Hazard Classes : 2.2
Hazard labels (DOT/TDG) :

DOT Packaging Non Bulk (49 CFR 173.xxx) : 302;304
DOT Packaging Bulk (49 CFR 173.xxx) : None
DOT Packaging Exceptions (49 CFR 173.xxx) : 306 (f)(4)
TDG Special provisions (SOR/2014-306) : 40;143
TDG Excepted quantities (SOR/2014-306) : E0

Additional information
Other information : No supplementary information available.
Special transport precautions : Do not handle until all safety precautions have been read and understood.
Automotive Shock Absorbers/Struts
Safety Data Sheet

SECTION 15: Regulatory Information

15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories.

15.2. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other Information

Date of issue : 11/24/2014
Revision date : 11/20/2018
Version : 2.1

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user’s responsibility to satisfy oneself as to the suitability and completeness of this information for the user’s own particular use.