

Automotive Shock Absorbers/Struts

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Date of issue: 11/24/2014

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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

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3.2. Mixture

| Name | Product identifier | % |
|--|---------------------|------|
| Steel/Rubber | Not available | 85 |
| Distillates (petroleum), hydrotreated light paraffinic | (CAS No) 64742-55-8 | 21.6 |
| Distillates (petroleum), hydrotreated light naphthenic | (CAS No) 64742-53-6 | 4.8 |
| Nitrogen | (CAS No) 7727-37-9 | 0.1 |

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.

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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

| Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) | | |
|---|--------------------------------------|--|
| ACGIH | ACGIH TWA (mg/m ³) | 5 mg/m ³ Oil mist (mineral) |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 5 mg/m ³ Oil mist (mineral) |
| NIOSH | NIOSH REL (TWA) (mg/m ³) | 5 mg/m ³ Oil mist (mineral) |
| IDLH | IDLH (mg/m ³) | 2500 mg/m ³ |
| Distillates (petroleum), hydrotreated light naphthenic (64742-53-6) | | |
| ACGIH | ACGIH TWA (mg/m ³) | 5 mg/m ³ Oil mist (mineral) |
| OSHA | OSHA PEL (TWA) (mg/m ³) | 5 mg/m ³ Oil mist (mineral) |
| NIOSH | NIOSH REL (TWA) (mg/m ³) | 5 mg/m ³ Oil mist (mineral) |
| IDLH | IDLH (mg/m ³) | 2500 mg/m ³ |
| Nitrogen (7727-37-9) | | |
| ACGIH | Not applicable | |
| OSHA | Not applicable | |

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

- Physical state : Shock/strut: Solid
Shock Oil mixture: Liquid
Nitrogen gas: Gas
- Appearance : Hydraulic oil & nitrogen gas in sealed metallic shock/struts.
- Colour : Metallic
- Odour : No data available
- Odour threshold : No data available
- pH : No data available
- Relative evaporation rate (butylacetate=1) : No data available
- Melting point : No data available
- Freezing point : No data available

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| | |
|----------------------------------|--|
| 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

Heat. Incompatible materials. Sources of ignition.

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) | |
|---|----------------------------|
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat | 3900 mg/m ³ /4h |

| Distillates (petroleum), hydrotreated light paraffinic (64742-55-8) | |
|---|--------------|
| LD50 oral rat | > 5000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 inhalation rat | 2.18 mg/l/4h |

| | |
|--|---|
| 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. |
| Carcinogenicity | : 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. |

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- 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

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| | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |
|-------------------------------|------------------|

12.3. Bioaccumulative potential

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| | |
|---------------------------|------------------|
| 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.

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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 |

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