

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

MANUFACTURER'S NAME: Fenner Precision™

ADDRESS: 311 West Stiegel Street, Manheim, PA 17545

TELEPHONE NO. 717 665 0909 (Monday – Friday, 8:00 a.m. – 5:00 p.m., EST)

PRODUCT NAME &amp;/OR NUMBER: Polyurethane Timing Belts

**SECTION 2: COMPOSITION**

Hazardous Components:	% (Wt./Vol.)	CAS	EINECS #	PEL	TLV
<b>Di(2-ethylhexyl) Phthalate (DEHP)</b>	<b>3 - 36</b>	<b>117-81-7</b>	<b>204-211-0</b>	<b>5 mg/m<sup>3</sup></b>	<b>5 mg/m<sup>3</sup></b>

Polyurethane belts are considered articles in accordance with Regulation EC 1907/2006 on Registration, Evaluation, Authorization, (and Restriction) of Chemical Hazards (REACH). The belts contain more than 0.1% by weight DEHP which is bound within the belt; however small quantities of DEHP will be released through out-gassing from the belt over the life of the belt. DEHP is listed as a Substance of Very High Concern by (REACH). REACH regulations require the article manufacturer to provide information about Substances of Very High Concern; therefore, hazard information about DEHP is included in this MSDS.

**SECTION 3: HAZARD IDENTIFICATION**

Emergency Overview:

Acute: None known for solid article.

Chronic: Information for DEHP: Most studies on the toxicity of DEHP indicate that it is non-genotoxic and non mutagenic. Metabolism studies indicate significant differences in response to DEHP between rodents and primates. Primates are not expected to be at risk. Chronic overexposure to DEHP has lead to liver disease and testicular atrophy in rodents.

Carcinogenity: Cured polyurethane is not listed as a carcinogen. The belt contains more than 0.1% by weight DEHP which has been classified as a R60-R61 toxic and toxic to reproduction, i.e. the substance causes reduced ability to reproduce and damage to the unborn child.

Potential Health Effects:

Routes of Exposure for DEHP: Dermal is the most likely route of entry from handling the belt during assembly operations. Inhalation is unlikely because very small quantities of DEHP out-gas during the life of the article. Ingestion is an unlikely route of entry because these are solid belts which are not intended to be eaten nor is expected that anyone would eat or suck on these items.

**SECTION 4: FIRST AID PROCEDURES**

Procedures: None – article does not pose a health threat.

Note to Physicians: None

**SECTION 5: FIRE FIGHTING MEASURES**

Flammable Properties:

Flash Point: Not Applicable

Flammable Limits: LEL: Not Applicable UEL: Not Applicable

Extinguishing Media: Water, dry chemical, foam, or carbon dioxide.

Fire Fighting Instructions: Evacuate non-emergency personnel to a safe area. Firefighters should use self-contained breathing apparatus. Avoid breathing smoke, fumes and decomposition products. Use water spray to quench smoldering elastomers.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

Safeguards (Personal): None

Spill Clean-up: Pick-up and handle as any other solid material.

### SECTION 7: HANDLING AND STORAGE

Handling: No special handling required for the solid article.

### SECTION 8: EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls: None required under normal use.

Personal Protective Equipment: None required in normal use.

Skin Protection: Avoid long term dermal contact by children or pregnant women.

Respiratory Protection: None required in normal use.

General Protection: None required in normal use.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Solid

Physical State: Solid

pH: Not applicable

Vapor Pressure: Not applicable

Vapor Density: Not applicable

Boiling Point: Not applicable

### SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Conditions to Avoid: None.

Incompatibility with Other Materials: Not applicable

Hazardous Decomposition or By-Products: Decomposition through burning produces fumes consisting of organic particulate, gaseous hydrocarbons, sulfur dioxide, hydrogen chloride, carbon dioxide, carbon monoxide, organic acids, aldehydes, alcohols, and may contain traces of isocyanates, curatives, hydrogen cyanide, acrolein and oxides of nitrogen.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: None.

### SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological Data for DEHP: Oral: LD50/rat > 30,000 mg/kg; Dermal: LD50/rabbit > 24,500 mg/kg; skin irritation: rabbit – non-irritant (OECD Guideline 404); eye irritation: rabbit – non-irritant (OECD Guideline 405); Sensitization: Buehler test/guinea pig: no sensitizing effect. Other Information: Reproduction toxicity studies in rats and mice: After oral administration indications of a fetotoxic effect and disturbances of the reproduction ability occurred.

**SECTION 12: ECOLOGICAL INFORMATION**

Ecological Data for DEHP:

Environmental fate and transport for DEHP:

Biodegradation:

Test method: OECD 301B; ISO9439; 92/69/EEC, C.4-C

Method of analysis: CO<sub>2</sub> formation relative to the theoretical value

Degree of elimination: 70-80%

Evaluation: Readily biodegradable (according to OECD criteria).

Bioaccumulation for DEHP: Fathead minnow Bioconcentration factor > 100. DEHP may be accumulated in organisms. Literature data.

Environmental toxicity for DEHP:

Acute and prolonged toxicity to fish: Flow through. Fathead minnow/LC50 (96h): > 0.67 mg/l. Literature data.

Acute toxicity to aquatic invertebrates: Daphnia magna/EC50 (48 h): > 0.16 mg/l. OECD Guideline 202, part 1 Daphnia magna/EC50 (48 h): > 100 mg/l. DEHP has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested.

Toxicity to aquatic plants for DEHP:

Green algae/EC50 (96 h): > 0.1 mg/l. Literature data. ETAD method, modified OECD Guideline 201 green algae/EC50 (72 h): > 130 mg/l. DEHP has low solubility in the test medium. An aqueous solution prepared with solubilizers has been tested. Literature data.

Toxicity to microorganisms for DEHP:

DIN/EN/ISO 8 192-OECD 209-88/302/EEC, P.C.: > 2,0000 mg/l. Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. Literature data.

**SECTION 13: DISPOSAL CONSIDERATIONS**

Waste Disposal: Dispose of material according to any local, state, and federal regulations.

**SECTION 14: TRANSPORT INFORMATION**

Shipping information: Not regulated as a hazardous material.

**SECTION 15: REGULATORY INFORMATION**

U.S. Federal Regulations:

EPA SARA Title III hazard class: None

EPA SARA Title III Section 313 (40CFR372) Toxic Chemicals present in quantities greater than the "de minimis" level are: None

State Regulations: None

**SECTION 16: OTHER INFORMATION****REVISION SUMMARY**

**Date Prepared:** July 21, 2004.    **Last Revised:** March 6, 2009    **Previous Revision:** September 4, 2007

**Summary of Revisions:**

May 12, 2005: Added sections 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15.

July 12, 2007: Changed the company name from Fenner Drives® to Fenner Precision™.

August 30, 2007: Incorporated Neoprene Flat Belts into the MSDS.

September 4, 2007: Removed the registered trademark from Neoprene and revised information in section 5 and 9.

March 6, 2009: Revised MSDS to conform to REACH requirements – called out DEHP and added information about DEHP in sections 2, 3, 8, 11, 12. Removed Neoprene belts from the MSDS.

This information relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The information is derived from the best available sources and is current as of the date of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of Fenner Precision™, it is the user's responsibility to determine the suitability and completeness of this information, and the conditions of safe use of the product, for his own particular use.