SAFETY DATA SHEET

PLF1712C, PLIOFLEX 1712C

SDS No. G0029  Revision: 11/15/2011  EU / EN

1. IDENTIFICATION of the SUBSTANCE and COMPANY

Trade Name  PLF1712C, PLIOFLEX 1712C
Chemical Name  Styrene-butadiene copolymer, oil-extended
Synonym(s):  SBR, oil-extended
Company Identification  The Goodyear Tire & Rubber Company  Akron, Ohio  44316-0001 U.S.A.
  Goodyear Dunlop France Usine Goodyear (Amiens Nord) ZI Nord Rue Roger Dumoulin
  80084 Amiens Cedex 2 France
Emergency Phone Numbers  Goodyear / 24 hour Assistance    330-796-5111
  Goodyear Dunlop France: 00 33 3 22 54 24 15
  Chemical Transportation Emergency Assistance   Chemtrec (USA)  800-424-9300
MSDS Information  Technical Assistance    330-796-1906
  ISSUED BY - Global Chemical Material Management - Akron, Ohio 44316-0001

2. HAZARDS IDENTIFICATION

EC Classification Designation
This preparation is classified as dangerous according to Council Directive 1999/45/EC.

Emergency Overview
If ignited by excessive heat or open flame, this product will burn. During fire conditions fumes are irritating to eyes and respiratory tract.

APPEARANCE: Tan, Brown solid  ODOR: Slight

Potential Health Effects
--- PRIMARY ROUTES OF ENTRY ---
Dermal (skin) contact
--- SHORT-TERM EXPOSURE ---
Fumes generated during processing may be irritating to the eyes and respiratory system.
--- LONG-TERM EXPOSURE ---
None known for product as produced.
3. COMPOSITION / INFORMATION on the COMPONENTS

Chemical Name: Styrene-butadiene copolymer, oil-extended.
Synonym(s): SBR, oil-extended
Non-hazardous information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Percentage by wt.</th>
<th>CAS-No</th>
<th>EC Number</th>
<th>EU Classification</th>
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<tbody>
<tr>
<td>Styrene-Butadiene polymer</td>
<td>60-80</td>
<td>9003-55-8</td>
<td>Polymer</td>
<td>NE</td>
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<tr>
<td>Petroleum distillates, hydrotreated</td>
<td>20-40</td>
<td>64742-52-5</td>
<td>265-155-0</td>
<td>Carc.Cat.2; R45</td>
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<tr>
<td>heavy naphthenic</td>
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</tbody>
</table>

4. FIRST AID MEASURES

No procedures are expected to be required for handling of rubber stock.
For fumes generated during high heat procedures:
- **Eye Contact**
  For irritation, flush eyes with copious amounts of water.
- **Skin Contact**
  Wash with soap and water. If irritation persists, seek medical attention.
- **Inhalation**
  If overcome by exposure, remove victim to fresh air.

5. FIRE-FIGHTING MEASURES

--- EXTINGUISHING MEDIA ---
Water, all purpose (ABC) dry chemical, CO2, foam

--- SPECIAL INTERVENTION METHODS ---
During emergency conditions, overexposure to thermal decomposition products may cause a health hazard. An approved, self-contained breathing apparatus should be worn.

--- SPECIAL EXPOSURE HAZARDS ---
Not easily ignited. However, when ignited, and particularly in bulk storage, a hot and difficult to control fire may develop. This material emits acrid smoke and fumes when burning.

6. ACCIDENTAL RELEASE MEASURES

---AFTER SPILLAGE/LEAKAGE --- (methods for cleaning up)
Sweep or shovel up. Reuse material.

7. HANDLING and STORAGE

--- PRECAUTIONS ---
Keep away from excessive heat and open flame.

--- HANDLING ---
When heated during processing: Avoid prolonged breathing of vapors and/or fumes. Wash thoroughly with soap and water after handling.

--- STORAGE ---
Store in a cool dry place away from excessive heat or open flame. Avoid sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Petroleum distillates, hydrotreated heavy naphthenic | 5 mg/m$^3$ (OIL MIST) |

--- VENTILATION PROTECTION ---
When this material is heated, provide enough fresh air and/or exhaust to remove the hot processing vapors from the work area. Observe the Occupational Exposure Limit of 3 mg/m$^3$ (Threshold Limit Value - 8 hour time weighted average) for insoluble respirable particulates, not otherwise classified.

--- RESPIRATION PROTECTION ---
Under normal conditions of use, respiratory protection should not be required.

--- SKIN PROTECTION ---
In this supplied form, the oil is bound in the polymer matrix and exposure to skin would be in trace quantities or less. Employees who have prolonged contact with this material should practice good personal hygiene by frequent washing of hands and arms with soap and water.

--- EYE PROTECTION ---
Safety glasses

--- PROTECTIVE GLOVES ---
Cloth

--- OTHER PROTECTION ---
Practice good personal hygiene.

9. PHYSICAL and CHEMICAL PROPERTIES

| APPEARANCE: | Tan, Brown solid |
| ODOR: | Slight |
| pH | Not determined. |
| FLASH POINT and METHOD | Not determined. |
| FLAMMABLE LIMITS |
| LEL | Not established for product |
| UEL | Not established for product |
| THERMAL DECOMPOSITION | Not determined. |
| AUTO-IGNITION TEMP | Not determined. |
| INITIAL BOILING POINT | Not determined. |
| MELT POINT | Not determined. |
| SPECIFIC GRAVITY | 0.91-0.96 |
| % VOLATILE BY VOLUME | <=0.75 |
| SOLUBILITY IN WATER | Insoluble |

10. STABILITY and REACTIVITY

--- CONDITIONS TO AVOID ---
None known; none expected. Material is stable.

--- MATERIALS TO AVOID ---
None known, none expected.

--- HAZARDOUS DECOMPOSITION PRODUCTS ---
Carbon monoxide and carbon dioxide.

11. TOXICOLOGY INFORMATION

| ORAL LD50 | Not established for product |
| DERMAL LD50 | Not established for product |
| INHALATION LC50 | Not established for product |
11. TOXICOLOGY INFORMATION

Petroleum distillates, hydrotreated heavy naphthenic
RAT ORAL LD50 > 5.00G/KG

12. ECOLOGICAL INFORMATION

Petroleum distillates, hydrotreated heavy naphthenic

Freshwater Fish Species Data
LC50 > 5000 mg/L Oncorhynchus mykiss 96 h

Water Flea Data
EC50 > 1000 mg/L Daphnia magna 48 h

--- OTHER ---
This product has not been tested for ecological (physical and/or biological) hazards or the data is not available or not known.

13. DISPOSAL CONSIDERATIONS

--- DISPOSAL ---
Incinerate or landfill in accordance with applicable environmental control regulations. Recycle if possible.

14. TRANSPORTATION INFORMATION

Hazard Class - Not classified. No labelling required according to current transport legislation.

15. REGULATORY INFORMATION

EC Classification Designation This preparation is classified as dangerous according to Council Directive 1999/45/EC.

---EC LABELLING---
15. REGULATORY INFORMATION

--- INTERNATIONAL ---

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<td>TSCA</td>
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16. OTHER INFORMATION / ADDITIONAL COMMENTS

Revision: 11/15/2011

Revision summary
The following Sections have been revised since the last issue of this Material Safety Data Sheet:
Section 2
Section 3
Section 15

The SDS has been updated to meet the requirements stipulated in commission regulation (EU) 453/2010.

--- END of DOCUMENT ---