Firestone Polymers
Material Safety Data Sheet

Issue Date: 10/11/07 Reviewed Date: July 5, 2007

Revision Date: July 5, 2007

SECTION 1: PRODUCT IDENTIFICATION

Product Name:	Duradene™Solution SBR (oil-extended)
Chemical Name / Synonym:	Poly(butadiene-co-styrene), oil extended; SBR oil extended
Chemical Family:	Butadiene/styrene copolymers, oil extended
24-Hour Emergency Phone:	Chemtrec (USA): 800-424-9300
	Chemtrec (International): 703-527-3887 (call collect)
Non-emergency Information:	Amy Ciesielczyk: 330-379-7867 (U.S.A.)
Manufacturer's Name:	Firestone Polymers
Manufacturer's Address:	381 W. Wilbeth Rd., Akron, OH 44301 (U.S.A.)
NFPA Hazard Rating:	Health-1 / Flammability-1 / Reactivity-0
HMIS Hazard Rating:	Health-1 / Flammability-1 / Reactivity-0
OSHA Hazardous:	Yes

SECTION 2: CHEMICAL COMPOSITION

Chemical Name:	Common Name:	CAS #:	% (by wt)	EC No.	Hazard Symbol/ Risk Phrase
Poly(butadiene-co-styrene)	SBR	9003-55-8	70-85%	N/A	N/A
Aromatic Petroleum Oil	Process oil	64742-04-7	15-30%	265-103-7	T; R45

Comments: As defined by 29CFR1910.1200

SECTION 3: HAZARD IDENTIFICATION

Primary Route of Exposure:	Skin contact
Signs and Symptoms of Exposure:	Respiratory irritation; skin irritation
Medical Conditions Aggravated by Exposure:	Skin disorders
Chronic Effects:	(For the oil) -- Suspect human carcinogen; suspect animal carcinogen – mice
Carcinogenicity:	(For the oil) -- Listed by IARC, NTP, OSHA and ACGIH – Untreated petroleum oils
	R45 – may cause cancer

SECTION 4: FIRST AID MEASURES

First Aid Procedures:

<u>Eye Contact</u> -- flush with water.

<u>Skin Contact</u> – wash affected areas with soap and water.

<u>Ingestion</u> – DO NOT induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested; seek medical advice.

<u>Inhalation</u> – move victim to fresh air. If not breathing, perform CPR. If

breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING PROCEDURES

Suitable Extinguishing Media:	Water or foam
Hazardous Combustion Products:	Oxides of carbon; aldehydes and ketones; combustion products of nitrogen and sulfur.
Recommended Fire Fighting Procedures:	Use self-contained breathing apparatus and impermeable protective clothing.
Unusual Fire and Explosion Hazards:	Oily liquid “bleeds” from this material while burning.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to Be Taken in Case Material is Released or Spilled:	A release or spill of this material would not constitute a safety hazard.

SECTION 7: HANDLING AND STORAGE

Precautions to Be Taken in Handling and Storing:	Store at temperatures <150° F. Handle and store in a manner designed to minimize skin contact.
Other precautions:	When this material is subjected to high temperatures (>250° F) for prolonged periods (i.e., rubber curing operations), oil fumes may be released. This may cause potential health hazards. There is no OSHA PEL for curing fumes. General exhaust ventilation is recommended.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:	
Poly(butadiene-co-styrene):	None
Aromatic Petroleum Oil:	0.2 mg/m^3
Ventilation:	General exhaust ventilation may be needed during certain processing operations. See Section 7.
Respiratory Protection:	None required.
Eye Protection:	N/A – Not applicable
Skin Protection:	Impermeable gloves along with long sleeves are recommended, but not required.
Other:	N/A
Work / Hygienic Practices:	At the end of each work period and before eating or using tobacco products, wash, with soap and water, areas of the body coming in

contact with this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor:	Rubbery, dark solid; oil-like odor		
Flash Point:	N/A	Lower Explosive Limit:	N/A
Method Used:	N/A	Upper Explosive Limit:	N/A
Evaporation Rate:	N/A	Boiling Point:	N/A
pH:		Melting Point:	N/A
Solubility in Water:	Nil	Specific Gravity:	>0.93
Vapor Density (Solvent Only):	N/A	Percent Volatile:	N/A
Vapor Pressure (Solvent Only):	N/A		

SECTION 10: STABILITY AND REACTIVITY

Thermal Stability:	Material is stable.
Hazardous Polymerization:	May not occur
Conditions to Avoid:	N/A

SECTION 11: TOXICOLOGICAL INFORMATION

No toxicological information is available for the polymer product as a whole. See Section 3 and Section 16 for hazard information regarding the aromatic oil component of this product.

SECTION 12: ECOLOGICAL INFORMATION

This product has not been tested for ecological hazards; ecological hazards are unknown.

SECTION 13: DISPOSAL

Incinerate or landfill in accordance with applicable environmental regulations.

SECTION 14: TRANSPORTATION

Regulatory Agency:	N/A
Proper Shipping Name:	N/A
Hazard Classification:	This product is not classified as hazardous.
Identification Number:	N/A
Labels Required:	No special labeling required.
Other Requirements:	N/A

SECTION 15: OTHER REGULATORY INFORMATION

SARA:	This product does not contain any chemicals reportable under SARA Title III, Section 313.
WHMIS:	We have not tested this product, but we believe that it is hazardous as defined by WHMIS.
TSCA:	This product, including all additives, is on the TSCA inventory.
LABELING:	Provided by Firestone Polymers (U.S.A.):

BUTADIENE/STYRENE COPOLYMER CONTAINING AROMATIC OIL
HAZARDOUS INGREDIENT: Aromatic Oil – CAS No. 64742-04-7

WARNING

Avoid continuous skin contact. This product contains an untreated petroleum oil product. Continuous contact with this type oil has caused skin cancer in laboratory tests with animals where no effort was made to remove the oil between applications.

PRECAUTIONS

Avoid continuous skin contact.

Wash with soap and water before eating or smoking and at the end of the work period.

MSDS is available from: Firestone Polymers
381 W. Wilbeth Road
Akron, OH 44301 (U.S.A.)

Manufactured by: Firestone Polymers
Highway 108 South
Lake Charles, LA 70601
CHEMTREC: 1-800-424-9300 (USA only)

SECTION 15: OTHER REGULATORY INFORMATION, continued

EUROPEAN REGULATORY INFORMATION:

According to EEC Directive 93/21 (classification, packaging and labeling of dangerous substances) and 45/1999/EC Directive concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labeling of dangerous preparations the product has to be classified as carcinogenic due to its content of an aromatic mineral oil.

Symbol: T

Hazard description: toxic

Contains: extracts (petroleum), heavy paraffinic solvent (Index No.: 649-002-00-9)

R45: May cause cancer.

S53: Avoid exposure – obtain special instructions before use.

S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

The polymer is not hazardous in the form in which it is placed on the market as long as the hazardous component is included in the polymer matrix. According to Annex VI, No. 9.3 of the directive 67/548/EEC, labeling of the product is not required.

SECTION 16: OTHER INFORMATION

Additional Comments:

This product has not been tested for health hazards. The comments and recommendations presented herein are based on studies of pure aromatic petroleum oil products.

This product contains a chemical classified as hazardous according to the U.S. Federal OSHA Hazard Communication Standard (29 CFR 1910.1200). Some of Firestone Polymers' (FSPC) SBR rubbers are now classified as "hazardous" based on the aromatic oil content. The International Agency for Research on Cancer (IARC) has classified these oils as carcinogenic based on animal skin studies. IARC monographs are one of the publications that is recognized by OSHA as a source for identifying chemical carcinogens.

The IARC classification is based on laboratory animal studies in which the oil was repeatedly applied to the animals' skin without prior removal of the previous application. This form of continuous skin contact caused some of the animals to develop skin tumors.

Based on past experience, FSPC does not feel that these oil-extended SBR products should present any health hazards to your employees. However, good personal hygiene practices will

insure the safety of personnel handling the oil-extended products.

SECTION 16: OTHER INFORMATION, continued

Date Prepared ( )/Revised (x):	July 5, 2007
Date of Previous MSDS:	December 10, 2003
Date Reviewed:	July 5, 2007
Changes Since Previous MSDS:	Page 1, header - Reviewed date added Section 2; Revised Polymer range from 70%+ to 70-85%
Name/telephone number for additional information:	Amy Ciesielczyk - Phone: 330-379-7867 (U.S.A.)

DISCLAIMER

The information contained herein is based on data considered accurate which has been obtained from other companies and organizations. However, no warranty or representation is expressed or implied that the information is accurate, complete or representative. Firestone Polymers assumes no responsibility for injury to the buyer, the buyer's employees, or any third persons, if reasonable safety procedures are not followed. Additionally, Firestone Polymers assumes no responsibility for injury to buyer, the buyer's employees, or any third persons caused by abnormal use of this material, even if reasonable safety procedures are followed.