

### Section 1. Material / Company Identification

**PRODUCT NAME** UNISOFT TPE™ **ST-90A-NT-1-16**  
**CHEMICAL NAME** Compound based on Styrene-Ethylene/Butylene-Styrene Block Copolymer  
**PRODUCT FAMILY** Thermoplastic Elastomer (TPE-S)  
**SUPPLIER** UNITED SOFT PLASTICS, INC.  
 720 Raco Drive  
 Lawrenceville, GA 30045, USA  
 Assistance: +1 770 339 9362

### Section 2. Composition

COMPONENTS	CAS#	% by Weight
1. Styrene-Ethylene/Butylene-Styrene Block Copolymer	66070-58-4	> 25
2. Extender Oil	8042-47-5	> 25
3. Plastic Resin, e.g. Polypropylene	9003-07-0	> 30
4. Filler, e.g. Natural Calcium Carbonate	1317-65-3	> 20
5. Antioxidant/Stabilizer/may contain Dusting Agent	6683-19-8	> 0.2

### Section 3. Hazards Identification

**HUMAN HEALTH HAZARDS** Exposure to molten resin may cause thermal burns. Material is not irritating, however it may cause irritation of skin allergic humans.

**SAFETY HAZARDS** Electrostatic charges may be generated during handling. Risk of self-ignition of bulk product above certain temperature (Refer to Section 10).

**ENVIRONMENTAL HAZARDS** No specific Hazards

**OTHER HAZARDS** Not classified as dangerous for supply or conveyance.

**SPECIAL NOTES** These materials are rubber compounds, which are essentially non-toxic. If polymer dusts are generated, they could scratch the eyes and cause minor irritation to the respiratory tract.

**CARCINOGEN POTENTIAL**

- National Toxicology Program: Not Listed
- I.A.R.C. Monograph: Not Listed
- OSHA: Not Listed

### Section 4. First Aid Measures

**INHALATION** Dust and process vapors may be irritating to the nose, throat and respiratory tract. Remove to fresh air. If rapid recovery does not occur, obtain medical attention.

**SKIN** If contact with hot, molten material, cool under ice water or a running stream of cold water. DO NOT attempt to remove the material from the skin. Removal could result in severe tissue damage. DO NOT apply burn creams or ointments. If available, cover the burn area loosely with a sterile dressing, and seek medical attention.

**EYE** Immediately flush eye with water for at least 15 minutes. Get medical attention if necessary.

**INGESTION** No specific measures.

**ADVICE TO PHYSICIANS** Treat Symptomatically.

### Section 5. Fire Fighting Measures

<b>FLASH POINT</b>	> 650 °F
<b>SPECIFIC HAZARDS</b>	Not classified, as flammable but will burn. Hazardous combustion products may include carbon monoxide, carbon dioxide.
<b>EXTINGUISHING MEDIA</b>	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
<b>UNSUITABLE EXTINGUISHING MEDIA</b>	Water in a jet may disperse fire.
<b>PROTECTIVE EQUIPMENT</b>	Wear standard fire fighting attire including full protective clothing and self-contained breathing apparatus.

### Section 6. Accidental Release Measures

<b>LAND SPILL</b>	Spilled material should be swept up and safely discarded. Comply with applicable international, federal, state and local regulations.
<b>WATER SPILL</b>	Advise local authorities if spilled in waterway or sewer. Skim from surface of water if possible.
<b>WASTE SPILL</b>	Reclaim where possible. Dispose of in accordance with local, state, federal, international and/or country specific regulations. This is not an RCRA hazardous waste.
<b>ENVIRONMENTAL PRECAUTIONS</b>	No specific measures.
<b>PROTECTIVE MEASURES</b>	Wear appropriate personal protective equipment (refer to Section 8) when responding to spills.

### Section 7. Handling and Storage

<b>HANDLING</b>	<p>Unisoft products have a tendency to accumulate static charge during transport, handling and processing. Static charge buildup can be a potential fire hazard when used in the presence of volatile or flammable vapors or in high airborne dust concentrations. Take precautionary measures against static discharges, earth ground all equipment. Inspect handling system regularly for possible accumulation of fines. Avoid generation or accumulation of dusts.</p> <p>Avoid contact with heated or molten product. DO NOT breathe dust. DO NOT breathe fumes or vapors from heated product. Use local exhaust extraction over processing area.</p> <p>When processing Unisoft products, maintain a fire watch if the material reaches 550 °F. This temperature is indicated only for safety reasons (risk of fire and product degradation) and is not necessarily recommended for processing. For more information about processing temperatures, consult the UNITED SOFT PLASTICS processing guides available from your sales representative.</p>
<b>STORAGE</b>	Store material in a cool, dry and well-ventilated area. We recommend protecting storage area with automatic sprinklers. Keep away from direct sunlight and other sources of heat or ignition. Avoid storage at temperatures above ambient to minimize risk of exothermic degradation, self-heating and possible self-ignition (refer to Section 10). Avoid storage under pressure or at elevated temperatures to minimize particulate clustering.
<b>STORAGE TEMPERATURES</b>	Ambient

### Section 8. Exposure Controls / Personal Protection

<b>OCCUPATIONAL EXPOSURE</b>	<p>None established. In the absence of occupational exposure standards for this product, it is recommended that the following be adopted (MEL=Maximum Exposure Limits):</p> <table> <tr> <td>• OSHA: Inhalable Dust</td><td>PEL / TWA (8h) = 10 mg/m<sup>3</sup></td></tr> <tr> <td>• OSHA: Respirable Dust</td><td>PEL / TWA (8h) = 3 mg/m<sup>3</sup></td></tr> <tr> <td>• ACGIH: Total Dust</td><td>MEL / TWA (8h) = 10 mg/m<sup>3</sup></td></tr> <tr> <td>• ACGIH: Oil mist (mineral)</td><td>MEL / TWA (8h) = 5 mg/m<sup>3</sup></td></tr> <tr> <td>• OSHA: Oil mist (mineral)</td><td>PEL / TWA (8h) = 5 mg/m<sup>3</sup></td></tr> </table>	• OSHA: Inhalable Dust	PEL / TWA (8h) = 10 mg/m <sup>3</sup>	• OSHA: Respirable Dust	PEL / TWA (8h) = 3 mg/m <sup>3</sup>	• ACGIH: Total Dust	MEL / TWA (8h) = 10 mg/m <sup>3</sup>	• ACGIH: Oil mist (mineral)	MEL / TWA (8h) = 5 mg/m <sup>3</sup>	• OSHA: Oil mist (mineral)	PEL / TWA (8h) = 5 mg/m <sup>3</sup>
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<b>SKIN PROTECTION</b>	Wear gloves when handling material.
<b>RESPIRATORY PROTECTION</b>	Where exposure to nuisance dust may exceed acceptable levels, use NIOSH / MSHA approved respiratory protection equipment. Use of local exhaust ventilation recommended.
<b>EYE PROTECTION</b>	Wear safety glasses, face shield or chemical goggles to avoid getting material in the eyes. Eyewash fountains and safety showers should be easily accessible.
<b>BODY PROTECTION</b>	Wear standard issue work clothes, which may include apron, safety shoes or boots as necessary.
<b>OTHER MEASURES</b>	Follow normal personal hygiene and good housekeeping practices. Follow standard OSHA regulations.

### Section 9. Physical and Chemical Properties

<b>PHYSICAL APPEARANCE</b>	Solid
<b>COLOR</b>	Natural (about RAL 9010)
<b>ODOR</b>	Essentially odorless
<b>SPECIFIC GRAVITY</b>	1.015 g/cm <sup>3</sup> @ 72 °F
<b>SOLUBILITY (IN WATER)</b>	Insoluble

### Section 10. Reactivity and Stability

<b>STABILITY</b>	Stable under ambient conditions. Oxidizes exothermically above ambient temperature.
<b>HAZARDOUS POLYMERIZATION</b>	Hazardous vapors from heated products are not expected to be generated under normal processing temperatures and conditions. Although highly dependant on temperature and environmental conditions, a variety of thermal decomposition products may be present if the product is over heated, is smoldering or catches fire. These range from simply hydrocarbons (such as methane and propane) to toxic/irritating vapors (such as carbon monoxide and dioxide, acrolein, aldehydes and ketones). (refer to handling in Section 7).
<b>CONDITIONS TO AVOID</b>	Keep away from heat, sparks and flame. Avoid contact with strong oxidizing agents.

### Section 11. Toxicological Information

<b>BASIS FOR ASSESSMENT</b>	Toxicological data have not been determined specifically for this product. Information given is based on knowledge of the toxicology of similar products.
<b>SKIN IRRITATION</b>	Not expected to be irritating.
<b>EYE IRRITATION</b>	Not expected to be irritating.
<b>SKIN SENSITIZATION</b>	Not expected to be a skin sensitizer.
<b>REPEATED DOSE TOXITY</b>	Repeated exposure does not cause significant toxic effects.
<b>MUTAGENICITY</b>	Not considered to be a mutagenic hazard.

### Section 12. Ecological Information

<b>BASIS FOR ASSESSMENT</b>	Ecotoxicological data have not been determined specifically for this product. The information given is based on knowledge of the components and the ecotoxicology of similar products.
<b>BIOACCUMULATION</b>	Not expected to bioaccumulate.
<b>OTHER INFORMATION</b>	Unisoft materials are predominantly compounded from high molecular weight polymer products, which by all accounts are non-toxic and biologically inactive.

### Section 13. Disposal Information

<b>WASTE/PRODUCT DISPOSAL</b>	Recover or recycle if possible, otherwise incinerate or use licensed landfill.
<b>LOCAL LEGISLATION</b>	The recommendations given are considered appropriate for safe disposal. However, local, state, federal, international, or country specific regulations take precedents. They may vary, and they may be more stringent but they must be strictly enforced and complied with.
<b>OTHER INFORMATION</b>	If this product becomes a waste and has not been chemically altered, it is not considered a hazardous waste as defined by RCRA (40CFR §261).

### Section 14. Transport Information

<b>US D. O. T. CLASSIFICATION</b>	This material is not subject to the U.S.-D.O.T. (US-Department of Transportation) regulations under 49CFR-Parts 171-177.
<b>I. A. T. A. REGULATIONS</b>	This product is not classified as hazardous under I.A.T.A. (International Air Transportation Association) regulations.
<b>I. M. D. G. CODE</b>	This product is not classified as hazardous under the I.M.D.G. (International Maritime Dangerous Goods) Code.
<b>A.D.R / C.R.T.D. / I.M.O. / I.C.A.O. CODES &amp; REGULATIONS</b>	This material is not dangerous for conveyance under these European and international codes and regulations.

### Section 15. Regulatory Information

<b>REMARK:</b>	The regulatory information provided is not intended to be comprehensive. Other local, state, federal, international or country specific regulations may apply to this material.
<b>S. A. R. A. Title III (US)</b>	This material is not regulated under S.A.R.A. Title III (Superfund Amendment & Reauthorization Act).
<b>T. S. C. A. INVENTORY STATUS (US)</b>	Component(s) of certain ingredients used for this material is/are listed on the E.P.A (US-Environmental Protection Agency) / T.S.C.A (Toxic Substances Control Act) list. However, the final product is not regulated under T.S.C.A.
<b>STATE OF CALIFORNIA (US)</b>	The California Safe Drinking Water Act does not regulate this material.
<b>STATE OF GEORGIA (US)</b>	The Georgia Right-To-Know-Act does not regulate this material.
<b>STATE OF NEW JERSEY (US)</b>	The New Jersey Right-To-Know-Act does not regulate this material.
<b>STATE OF PENNSYLVANIA (US)</b>	The Pennsylvania Right-To-Know-Act does not regulate this material.
<b>EC – CLASSIFICATION (EUROPE)</b>	Not classified as dangerous substance.

### Section 16. Other Information

<b>DATE PREPARED:</b>	August 07, 2010
<b>DATE REVISED:</b>	March 06, 2011
<b>DISTRIBUTION OF M. S. D. S.</b>	The information in this document should be made available to all who may handle the material.
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