

Material Safety Data Sheet (MSDS)

1. Identification

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| Product Information | Styrene-Butadiene Rubber (SBR1502) |
| Product Name | Taipol - SBR 1502 |
| Use of the production/Preparation | Sidewall ,Footwear,Rubberied fabric, other light colored products,non staining type black products |
| Information on Product/Supplier Name/Address | Indian Synthetic Rubber Private Limited, Opposite Naphtha Cracker Polymer Terminal Gate Panipat Refinery, Panipat, Haryana, India. Pincode-132140 |
| Phone | 0180-2529001 |

2. Hazard Identification

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| Human health hazards | The material itself is slightly hazardous to the human body. Heating may release small amounts of volatile irritants. |
| Environmental hazards | Not available. |
| Physical/chemical hazards | The material burns slowly with high smoke density. |
| HMIS Hazard Classification | Health 1 Flammability 1 Physical Hazard 0 Protection B |

3. Composition/Information on Ingredients

| Ingredient | CAS No. | Max.Wt. % |
|-----------------------------|----------------|-----------|
| Styrene-Butadiene Copolymer | 9003-55-8 | > 93.8 |
| Disproportionate Rosin | 8050-09-7 | <2 |
| Vegetable Fatty acids | 67701 – 06 – 8 | <3 |
| Antioxidant Mixture | Proprietary | <1.2 |

4. First Aid Measures

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| Emergency And First Aid Procedures: | |
| Inhalation: | Move victim to fresh air. If not breathing, give artificial respiration. Get medical attention. |
| Skin Contact: | Immediately wash with plenty of soap and water. Get medical attention if irritation occurs. |
| Eye Contact: | Immediately flush eyes with running water for at least 20 minutes holding eyelids open. Get medical attention. |
| Ingestion: | Do not induce vomiting. Give 1-2 glasses of water to a conscious victim. Never give anything by mouth to an unconscious victim. Get medical attention. |
| Major Disease And Harm Effect | None |
| First Aid Personal Protection | None |
| Prompt to Doctor | None |

5. Fire Fighting Measures

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| Suitable Extinguishing Media: Water, Water/foam, Carbon di oxide,ABC fire extinguisher powder |
| Special Exposure Hazards : None known |
| Special Extinguishing Procedure: <ol style="list-style-type: none"> 1. Firefighters should wear proper protective apparatus including clothes and stay upwind. 2. Move containers out of fire area and put out a fire if it can be done without risk. 3. Cool containers with water spray until the fire is put out. 4. Use water spray; Foam; CO₂ or Dry chemical powder to extinguish flame. 5. Keep personnel removed and upwind of fire, isolate hazard area and deny the right to entry. 6. Avoid inhale any materials or by-products during combustion. |
| Special Protecting Equipment: Full protective clothing and self-contained breathing apparatus. |

6. Accidental Release Measures

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| Personal Protection | Wear appropriate personal protective equipment. |
| Environmental Protection | Avoid to approach heater or ignition source. |
| Methods for cleaning Up | Large spills Collect spilled material and reuse if possible. Small spills: Collect spilled material in containers and dispose appropriately. |

7. Handling and Storage

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| <p>Handling: Do not eat, drink or smoke when using. Avoid inhalation of fumes/vapours from hot rubbers, compounds and vulcanizates. Avoid repeated or prolonged contact with skin. Wear gloves and wash hands after.</p> |
| <p>Storage: With the reference of ISO 7664- Rubber, raw natural and raw synthetic – General guidance on storage and considering the actual storage situation, we suggest that ISRPL SBR can be stored in a natural condition with normal temperature, lightproof, ventilated, clean and dry.</p> |

8. Exposure Controls/Personal Protection

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| <p>Engineering Control : Local exhaust ventilation should be necessary to control any air contaminants during all hot processing operations.</p> |
| <p>Control Factor : TWA/STEL/CEILING: No special measures. Biotic Index: No specific measures.</p> |
| <p>Personal Protection Equipment : Respiratory Protection: Under ambient temperature, respiratory protection is not required. Void breathing vapour and mist from hot rubbers, compounds and vulcanizes. Hand Protection: Cloth gloves if desired. Eye Protection: Wear safety glasses. Skin & Body Protection: Standard issue work clothes which may include: apron safety shoes or boots as necessary. Wear heat resistant gloves, arm protection and face shield when working with hot materials.</p> |
| <p>Hygiene Procedures: Wash thoroughly after handling.</p> |

9. Physical and Chemical Properties

Information on basic Physical and Chemical Properties

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| 1. | Physical state | Solid |
| 2. | Colour | Light Yellow |
| 3. | Odour | Odourless |
| 4. | Odour threshold | No data available |
| 5. | PH | No data available |
| 6. | Melting Point | No data available |
| 7. | Solidification Point | No data available |
| 8. | Boiling Point | No data available |
| 9. | Flash Point | No data available |
| 10. | Flammability (solid, gas) | No data available |
| 11. | Explosive limits | No data available |
| 12. | Vapour pressure | No data available |
| 13. | Relative vapour density at 20 °C | No data available |
| 14. | Relative density | No data available |
| 15. | Solubility | No data available |
| 16. | Log Pow | No data available |

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| 17. | Decomposition temperature | No data available |
| 18. | Viscosity, kinematic | No data available |
| 19. | Viscosity, dynamic | No data available |
| 20. | Explosive properties | No data available |
| 21. | Oxidising properties | No data available |

10. Stability and Reactivity

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| Stability: Stable at ambient temperature and pressure. |
| Special Condition of Hazardous Reaction: If ignited by excessive heat or open flame the product will burn. |
| Conditions to Avoid: Extreme temperature, 300-350°C (572-662 °F) will cause thermal decomposition. |
| Incompatibility: Strong Oxidizers. |
| Hazardous Decomposition Product: Carbon Monoxide Carbon Dioxide partially oxidized hydrocarbon. |
| Hazardous Reactions: Will not occur. |

11. Toxicological Information

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| Skin Corrosion/Irritation : Not expected to be corrosion but maybe irritant. |
| Eye corrosion/Irritation: Not expected to be corrosion but maybe irritant. |
| Skin Sensitive: May cause sensitization by skin contact. |
| Aspiration Toxicity: May cause irritation or carcinogens by inhalation of fumes/vapour. |
| Carcinogenicity: No information available. |
| Mutagenicity: No information available. |
| Repeated exposure toxicity: Repeated exposure may cause irritation. |
| Chronic: No information available. |
| Exceptional Effect: No information available. |

12. Ecological Information

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|----------------------------|---------------------|
| Eco toxicity | Data not available. |
| Persistence/degradability | Data not available. |
| Bio accumulative potential | Data not available. |
| Mobility | Data not available. |
| Other adverse effects | Data not available. |

13. Disposal Considerations

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| Product disposal Information: Incinerate or landfill in accordance with applicable environment control regulation. Recycle if possible. |
| Container Disposal: Remove all packing for recover or waste disposal. |

14. Transport Information

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| Internal Transport Regulation: This material is not classified as hazardous under USA DOT regulations, Canadian Transportation of Dangerous Goods Regulations, Europe Transportation of Dangerous Goods Regulations, and IATA Regulations. |
| The United National Number (Un-No) : None |
| Transport Hazard Class: This material is not classified as hazardous according to the UN model Regulations. |
| Packing Group: This packing group is not classified as hazardous according to the UN model Regulations. |
| Marine Pollutant : This material is not classified as hazardous according to the UN model Regulations, ADR RID and IMO. |
| Special Transport Way And Note: None. |

Indian Synthetic Rubber Private Limited

15. Regulation Information

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| OSHA | Rosin fumes are eye and skin irritants & sensitizers. |
| FDA | Products are not approved for direct or indirect contact with foodstuffs. |
| SARA Title III | Section 302/304. Extremely Hazardous Substances - None. Section 311. Hazardous Substances - Not Applicable. Section 313. This product is not subject to reporting requirements |
| EINECS & TSCA | Components are listed. |
| CA65 | Not listed |
| EU Phrases | Symbol Xn Harmful Risk Phrases R43, May cause sensitization by skin contact Safety Phrases S2-24-37 Contains Disproportionated rosin acid |

16. Other Information

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| Reference | None |
| Supplier | Name : Indian Synthetic Rubber Private Limited, Opposite Naphtha Cracker Polymer Terminal Gate Panipat Refinery, Panipat, Haryana, India. |
| Date | 2013/09/24 |
| Version | 0 |
| Additional Comments | The information contained in this document is believed to be current and accurate. However, this data is provided without any warrantee expressed or implied regarding or accuracy. Recipients are advised to determine in advance the safe conditions for use of this product. |

Disclaimer

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Limited warranty

There are no warranties which extend beyond the product description herein, and seller makes no warranty, express or implied, of fitness for particular use, merchantability or otherwise with respect to product, whether used singly or in combination with other substance or in any process, except that product sold hereunder shall conform to seller's standard sales specifications as of the date of the shipment. Without limiting the foregoing, seller does not recommend or endorse the use of product(s) in any medical application and specifically disclaims any representation or warranty, express or implied, of suitability or fitness for use or otherwise, with respect to product(s)' use in any medical application. Buyer represents and warrants that no product(s) purchased hereunder will be used in or resold into any commercial or developmental manner in connection with medical applications without seller's prior express written acknowledgement, further, buyer agrees that it will make no representations, express or implied, to any person to the effect that seller recommends or endorses the use of product(s) purchased hereunder in any medical application.

