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1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Trade Name: Styrene Butadiene Rubber (SBR-Oil Grade) or SBR 1712

Chemical Name: Extended Oil Butadiene Styrene copolymer

Molecular Formular: (CH₂-CH=CH-CH₂-CH₂-CH)_n

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Synonyms: -

1.2 Use : Raw material for the production of tires. Prohibited for use in the production of food -

grade products.

1.3 Manufacturer/Import: BST Elastomers Company Limited

1.4 Address: 5/1, I-7 Rd. Map Ta Phut Industrial Estate, Muang District, Rayong 21150

Tel.: +66(0) 3869-8698 Fax: +66(0) 3869-8690

2. HAZARD IDENTIFICATION

2.1 Classification of Substance or Mixture

Classification according to Directive 1999/45/EC: Carcinogen Cat.3; R40. R52/53.

GHS classification : This product is not classified as hazardous. Contains chemicals which is classified as Carcinogenicity Category 1B

Physical Hazards:

Explosives: Not classified

Flammable gases : Not applicable

Flammable aerosols : Not applicable

Oxidizing gases: Not applicable

Gases under pressure : Not applicable

Flammable liquids: Not applicable

Flammable Solids : Not classified

Self-reactive substances and mixture Not classified

Substances and mixtures which, Not classified

in contact with water,

emit flammable gases

Oxidizing liquids: Not applicable

Oxidizing solids: Not classified

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Organic peroxides : Not classified Corrosive to metals : Not classified

Health Hazards:

Acute toxicity (oral): Not classified

Acute toxicity (Dermal) : Classification not possible
Acute toxicity (Inhalation) : Classification not possible

Serious eye damage/irritation : Not applicable

Respiratory sensitization : Classification not possible

Skin sensitization: Not classified

Germ cell mutagenicity: Classification not possible

Carcinogenicity: Not classified

Reproductive toxicity: Classification not possible

Specific target organ toxicity

(Single exposure) : Classification not possible (Repeated exposure) : Classification not possible

Aspiration hazards: Not applicable

Environmental hazards:

Hazards to aquatic environment

(Acute): Not classified (Chronic): Not classified

2.2 Label Elements:

Pictogram or Symbol:



Signal word : Warning

Hazard statement: H351 Suspected of causing cancer

Precautionary statement: P318 If exposed or concerned, get medical advice.

P405 Store locked up

P501 Dispose of contents/ container

2.3 Other Hazards

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Other hazards which do not result in classification

3.COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name: Styrene Butadiene Copolymer

Synonyms: Styrene Butadiene Rubber (SBR)

NameCAS No.%Butadiene Styrene Copolymer9003-55-873Aromatic Extended Oil64742-04-727

4. FIRST-AID MEASURE

4.1 Description of first aid measures

Skin: Wash skin with soap and water.

Eye: Wash eyes with large amounts of water occasionally lifting upper and lower lids, until no evidence of chemical remains at least 15-20 minutes.

Inhalation : Although this product is not known to cause respiratory problems, if breathing is difficult, remove to fresh air and provide oxygen.

Ingestion: Ingestion is not considered a potential route of exposure.

4.2 Potential acute health effects

Skin: May cause slight skin irritation.

Eye: No hazards expected in normal industrial use at room temperature.

Inhalation: Irritating vapors may be formed when product is processed at high

temperature.

Ingestion: Ingestion is not considered a potential route of exposure.

4.3 Potential Chronic health effects.

Chronic effects: No known significant effects or critical hazards

Carcinogenicity: No carcinogenic substances as defined by IARC, NTP and/or OSHA.

4.4 Notes to physician : No specific treatment . Treat symptomatically.

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5. FIRE FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Extinguishing Media : Dry chemical powder, CO₂, water spray or regular foam. For large fires, use water spray, fog or regular foam.

5.2 Special Hazards Arise from the Substance or Mixture

Hazards from the substance or mixture: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Hazardous decomposition Products : Thermal decomposition may release acrid smoke and irritation fumes

5.3 Advice for Firefighters

Special Fire-Fighting Procedures: Keep up-wind to avoid fumes. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Cool containers exposed to flames with water until well after the fire is out. Fight advanced or massive fires from safe distance or protected location. Avoid inhalation of materials or combustion by-products.

Special Protective Equipment for Firefighters: Should wear appropriate protective equipment and SCBA with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

- 6.1 Personal Precaution: Wear protective clothing. Avoid heat, flame and other sources of ignition. Keep upwind. Do not handle broken packages without protective equipment. Provide adequate ventilation. Keep unnecessary people away, isolate hazard and deny entry. Avoid inhalation of vapors and contact with skin and eyes.
- **6.2 Environmental Precaution**: Sweep up and place in suitable containers. Do not flush spilled material into sewer. Keep unnecessary people away.

6.3 Method and Materials for Containment and Cleaning Up

Small Spill: Take up mechanically, treat or dispose of waste material in accordance with all local and national requirements.

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Large Spill: Handle as solid waste. Vacuum or sweep up material and place in a disposal container.

7. HANDLING AND STORAGE

7.1 Precaution for Safe Handling:

- Make efforts to keep workplace clean and tidy, and avoid using fire.
- Since there is possibility of volatile matter generating during work, it may cause irritation to the eyes.
 - After work, before smoking or eating, wash the hands well, and gargle.

7.2 Condition for Safe Storage including any incompatibilities :

- Store and handle in accordance with all current regulations and standards.
- Store in tightly closed original container in a dry, cool and well-ventilated place
- Protect against direct sunlight
- Do not store near heat sources or expose to high temperatures.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control Parameter

Exposure limit value : No Data Available

8.2 Exposure Control

Occupational exposure controls: user operation generate dust, fume or dust use ventilation to keep exposure to airborne contaminants below the exposure limit.

Environment exposure controls

<u>Technical measure</u>: Emission from ventilation or work process equipment should be check to ensure comply with the requirement of environmental protection legislation. In some case, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emission to acceptable levels.

8.3 Personal protection measure

Respiratory protection: Respirator with a dust and mist filter in case dust formation.

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Protective Gloves : Employee should wear appropriate protective gloves to prevent contact with this substance.

Eye Protection : Employee must wear splash-proof or dust resistant safety goggles to prevent eye contact with this substance.

Skin: Employee should wear appropriate protective (impervious) clothing and equipment to prevent repeated or prolonged skin contact with this substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 General information Appearance

Physical State: Solid (Rubber bales)

Colour: Greenish brown or dark brown

Odour: slight odor

9.2 Odour threshold limit: No data available.

9.3 pH: No data available.

9.4 Melting Point / Freezing point : No data available.

9.5 Initial boiling point and boiling range : No data available.

9.6 Flash point : Closed cup : 246°C.

9.7 Evaporation Rate: No data available

9.8 Flammability (Solid/Gas): No data available.

9.9 Upper Flammability/Explosive limits: No data available.

Lower Flammability/Explosive limits: No data available.

9.10 Vapor Pressure: No data available.

9.11 Vapor density: No data available.

9.12 Relative density: 0.940 g/cm³.

9.13 Solubility : Insoluble in water.

9.14 Partition Coefficient: n-octanol / water: No data available

9.15 Auto ignition temperature : >388°C.

9.16 Decomposition temperature : No data available.

9.17 Viscosity: No data available.

9.18 Molecular Weight: No data available.

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10. STABILITY AND REACTIVITY

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Stability: Stable

10.3 Possibility of hazardous reaction : Under normal condition storage and use , hazardous reaction will not occur.

- **10.4 Conditions to Avoid :** Avoid heat, flames and other sources of ignition. Avoid exposure to high temperatures or direct sunlight.
- **10.5 Incompatible material:** There are no known materials which are incompatible with this product.
- **10.6 Hazardous Decomposition Products**: During fire, toxic gases (CO, CO₂) are formed. Hydrocarbon.

11. TOXICOLOGICAL INFORMATION

11.1 Potential acute health effects

Skin: May cause mechanical irritation (abrasion). Contact with hot material will cause thermal burns.

Eye: May cause mechanical irritation (abrasion).

Inhalation: May cause mechanical irritation (abrasion).

Ingestion: No known significant effects or critical hazards.

11.2 Potential Chronic health effects.

Chronic effects: No known significant effects or critical hazards

Carcinogenicity: No carcinogenic substances as defined by IARC, NTP and/or OSHA.

11.3 Acute Toxicity Level:

Acute oral toxicity: Not available

Acute dermal toxicity: Not available

Acute inhalation toxicity: Not available

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12. ECOLOGICAL INFORMATION

12.1 Eco-Toxicity: No data available.

12.2 persistence and Degradability: No data available.

12.3 Bio accumulative Potential: No data available.

12.4 Mobility in soil: No data available.

12.5 Other Adverse effect: No data available.

The product is practically insoluble in water. No ecological problems are to be expected if the product is properly handling.

13. DISPOSAL CONSIDERATIONS

13.1 General Information

Dispose of contents/containers in accordance with local/regional/international regulation. Waste is suitable for incineration. If the waste contains designated waste and difficult to separate, incinerate it or reduce the volume following the similar way as incineration. If applicable, pretreat the waste by oil/water separation.

13.2 Waste treatment methods

Confirm disposal procedures with environmental engineer and local regulation. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

14. TRANSPORT INFORMATION

14.1 UN No.: Not available

14.2 UN Proper shipping name : Not available

14.3 Transport Hazard class: Not available

14.4 Packing group: Not available

14.5 Marine pollutants: Not available

14.6 Transport in bulk according to annex II of MARPOL73/78 and the ICB code: Not

available

14.7 Special precautions for user/Additional information : Not available

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15. REGULATORY INFORMATION

15.1 Thailand Regulation

- Labour Protection Act B.E.2541 : Material is not listed

- Hazardous Substance Act B.E. 2535 : Material is not listed

15.2 CLP Regulation: European Regulation (EC) No 1272/2008 on Classification, Labelling

and Packaging of Substances and Mixtures, ; Material is listed in Annex VI

15.3 OSHA: No data available.

15.4 TSCA: No data available.

15.5 SARA: No data available

15.6 REACH Regulation : Material is not listed

16. OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH: American Conference of Government Industrial Hygienists

NFPA: National Fire Protection Agency

NIOSH: National Institute for Occupational Safety & Health

OSHA: Occupational Safety & Health Administration

IARC : International Agency for Research on Cancer

SARA: Superfund Amendments and Reauthorization Act.

GHS: Globally Harmonized System

TSCA: Toxic Substance Control Act

WHMIS: Workplace Hazardous Materials Information System

LD50 : Lethal Dose 50%

CNS : Central Nervous System NTP National Toxicology Program

EC50 : Effective Concentration NOAEL No Observable Adverse Effect Level

EC50 : Effective Concentration 50% NOEC No Observed Effect Concentration

PEL : Permissible Exposure Limit

STEL: Short-term Exposure Limit

TLV: Threshold Limit Value

TWA: Time Weighted Average

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Remark

Additional Information Available from

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