VORONEZHSYNTHEZKAUCHUK JSC

SAFETY DATA SHEET

STYRENE-BUTADIENE RUBBER (SSBR)
Solution type

GRADES
SSBR - 2560 TDAE; SSBR - 4040 TDAE; SSBR - 3750 TDAE;
SSBR - 3755 TDAE

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

1.1 Product identifier
Name of Substance: Styrene Butadiene Rubber (Solution type)
Name of IUPAC: benzene, ethenyl-, polymer with buta-1,3-diene
Synonyms: Poly(styrene-co-butadiene)
Product Grades: SSBR -2560 TDAE; SSBR-4040 TDAE;
SSBR -3750 TDAE; SSBR-3755 TDAE

Registration # for 1,3-butadiene: 01-2119471988-16-0034
(CAS #106-99-0; EC #203-450-8)
Index No(CLP): 601-013-00-X
Registration for styrene:
(CAS #100-42-5; EC #202-851-5)
Index No(CLP): 601-026-00-0
Registration for oil filler:
(CAS #64741-88-4; EC #265-090-8)
Index No(CLP): 649-454-00-7

DISCLAIMER
This product is a polymer and is not classified as dangerous under criteria of Directives No 67/458/EEC,
No 1999/45/EC and Regulation (EC) No 1272/2008 (Regulation CLP). This polymer does not contain substances
classified as dangerous under Article 59.2 Regulation (EC) No 1272/2008, namely:
- in an individual concentration of ≥ 1 % by weight for non-gaseous mixtures posing human health or environmental; or
- in an individual concentration of ≥ 0.1 % by weight for non-gaseous mixtures that is carcinogenic category 2 or toxic
to reproduction category 1A, 1B and 2, skin sensitiser category 1, respiratory sensitiser category 1, or has effects on or
via lactation or is persistent, bioaccumulative and toxic (PBT) in accordance with the criteria set out in Annex XIII or
very persistent and very bioaccumulative (vPvB) in accordance with the criteria set out in Annex XIII; or
- a substance for which there are Community workplace exposure limits.
In accordance with mentioned above, this product does not require and official e-SDS as per Regulations (EC) No
This e-SDS is developed in good faith to provide a customer with sufficient information allowing taking necessary
measures to comply with relevant HSE requirements.
1.2 Relevant identified uses of the substance
1.2.1 Most common technical function of Styrene Butadiene Rubber (Solution type): tyre production, technical rubber parts (profiles, hoses, shoe soles, belt production, technical rubber goods), rubber compound.
1.2.2 Uses advised against: Uses other than those given in section 1.2.1 are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.

1.3 Details of the supplier of the safety data sheet
Only representative
Company name: Gazprom Marketing and Trading France
Address: 68 avenue des Champs-Elysées, 75008, Paris, France
Contact Telephone: +33 1 42 99 73 50
Fax: +33 1 42 99 73 99
Email Address: Yury.severinchik@gazprom-mt.com

Supplier
Company name: Voronezhsynthezkauchuk JSC
Address: 2, Leninsky prospect, Voronezh, Russia, 394014
Phone: +7 473 220 68 88
Fax: +7 473 220 68 69
Email Address: VSK-office@vsk.sibur.ru
Emergency phone: +7 473 249 09 00, +7 473 220 76 30 (round the clock)

Emergency phone in the country of delivery: 112 (Please note that emergency numbers may vary depending upon the country of delivery though 112 remains valid as universal number)

SECTION 2. HAZARDS IDENTIFICATION
2.1. Classification of the substance or mixture
2.1.1 Classification according to Regulation (EC) No 1272/2008 (CLP/GHS)
Not classified as a hazardous substance.

2.2 Label elements
2.2.1 Labelling according to Regulation (EC) No 1272/2008 (CLP/GHS)
Not applicable.
None.

2.3 Specific hazard
No significant health hazard in normal industrial use conditions.
Contact of melted/ heated product may cause thermal burns.
Processing vapours, which can irritate eyes and respiratory tract, may form when product is heated at high temperatures.
Combustible solid.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
This product is a synthetic rubber, consisting of at least 70 - 75% co-polymer from styrene and butadiene (bound styrene for grades: SSBR-2560 TDAE – 20 - 30%; SSBR-4040 TDÂE – 35 - 45%; SSBR-3750 TDAE and SSBR-3755 TDAE – 35 -40%), 25 - 27% oil filler
(CAS#64741-88-4/EC#265-090-8), 0.2 - 0.4% antioxidant (CAS#82209-88-9). May contain traces of styrene (< 0.05%).

According to CLP Regulation the product is a mixture of poly(styrene-co-butadiene), oil filler (distillates (petroleum) solvent-refined heavy paraffinic):

<table>
<thead>
<tr>
<th>Name</th>
<th>EC #</th>
<th>CAS #</th>
<th>Content, %</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poly(styrene-co-butadiene)</td>
<td>none</td>
<td>9003-55-8</td>
<td>70.0-75.0</td>
<td>none</td>
</tr>
<tr>
<td>Distillates (petroleum), solvent-refined heavy</td>
<td>265-090-8</td>
<td>64741-88-4</td>
<td>25.0-30.0</td>
<td>none*</td>
</tr>
<tr>
<td>paraffinic (oil filler)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*The substance is not classified as carcinogenic (GHS08, Carc 1B, H350) as it complies with Note L (IP 346 < 3%; viscosity > 20.5 mm²/s at 40 °C) having polynuclear aromatic hydrocarbon content < 3% determined in accordance with IP 346 (dimethyl sulfoxide extraction) (Annex VI – Regulation EC 1272/2008).

The product does not contain impurities or additives that could affect product’s labelling and classification according to Regulation (EC) No 1272/2008 (CLP) in the concentration ranges specified.

SECTION 4. FIRST-AID MEASURES

4.1 Description of first aid measures

**General information**
Styrene penetration of styrene-butadiene rubber into human organism is impossible. Styrene-butadiene rubber at normal conditions is stable and non-volatile. Under high temperatures and during rubber processing release of monomer vapours are possible which in poor ventilated areas may cause irritation of eyes mucous and upper respiratory ways. Contact with eyes may cause mechanical damage, irritation of eyes mucous, delacrimation. No significant health hazard in normal industrial use conditions. Contact with melted/ heated product may cause thermal burns.

**Inhalation**
In emergency and in case of poisoning by rubber combustion products or if decomposition or thermal destruction products are inhaled:
Move any exposed person to fresh air at once. Keep warm and at rest. If there is respiratory distress give oxygen. If respiration stops or shows signs of failing, apply artificial respiration. Get medical attention.

**Ingestion**
In case of accidental swallowing.
Wash out mouth with water and give plenty of water to drink, provided person is conscious. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have the exposed person lean forward. Get medical attention.

**Skin contact**
There are no risks in normal industrial use conditions. In the case of contact with hot product remove contaminated clothing and wash skin with plenty of running water, under a shower if affected area is large enough to warrant this. Get medical attention.

**Eye contact**
Rinse immediately eye with plenty of low pressure water for at least 15 minutes. Remove any contact lenses. Get medical attention.
4.2 Most important symptoms and effects, both acute and delayed
Inhalation Symptoms: thermal-oxidative products inhalation may irritate respiratory system, eye irritation.
Skin Contact Symptoms: contact with hot product may cause serious burns.
Eye Contact Symptoms: eye Contact may cause mechanical damage, irritation of eyes mucous.
Ingestion/aspiration symptoms: ingestion/aspiration may cause irritation of digestive tract. May cause gastrointestinal blockage.

4.3 Notes for the doctor
No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media
Use foam, dry chemical, carbon dioxide, sand or water spray.

5.2 Special fire fighting procedures
Keep away from sources of ignition – no smoking.
Extinguish fire keeping safe distance. Not yet ignited rubber briquettes to be kept cool by means of water spraying.

5.3 Unusual fire & explosion hazards
None.

5.4 Specific hazards
Combustion generates irritating and toxic fumes.
Burning causes emissions of carbon oxide.

5.5 Special Protective Equipment for fire-fighters
Wear canvas protective suit, gloves, helmets, face shields, rubber or kersey boots, gas mask.
In proximity to fire wear full protective clothing and MSHA/NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Individual safety measures
Remove sources of ignition.
Provide workplace ventilation, process equipment and communication sealing, air monitoring of the workplace, avoid contact with skin and eyes.

6.2 Environmental precautions
Do not allow penetration of the product into water reservoirs, surface and ground water, sewer ducts and soil. Preventing disposal into water reservoirs of contaminated water without treatment.
Monitor content of hazardous substances in the air.
Provide sealing of process equipment.

6.3 Spill clean-up methods
Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.
6.4 Reference to other sections
For additional information, refer to Section 8, Exposure Controls and Personal Protection equipment.

### SECTION 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice.
Provide input-extract and local ventilation of work zones.
Provide thorough sealing and grounding of process equipment.
Regularly control work zone air.

#### 7.2 Usage precaution
Use in accordance with safety measures, rules of personal hygiene and industrial sanitation in the production at the facility.
Avoid contact with eyes and skin. Do not ingest or inhale combustion or decomposition products.

#### 7.3 Storage precautions
Store in a dry, well-ventilated area, at temperature not exceeding 30°C.
Keep away from direct sunlight, atmospheric precipitation and incompatible substances in a closed container. Prevent from freezing.

#### 7.4 Specific end use(s)
Please check the identified uses given in Section 1.2 of this safety data sheet.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

**8.1.1 Occupational Exposure Limits**
For Poly(styrene-co-butadiene) (CAS: 9003-55-8): not established

**Occupational Exposure Limits** for the possible products of thermal-oxidative degradatoin (see section 10.6):

For Styrene: International Limit Values

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>LTEL 8 hr TWA ppm</th>
<th>LTEL 8 hr TWA mg/m³</th>
<th>STEL ppm</th>
<th>STEL mg/m³</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Styrene</strong>&lt;br&gt;CAS #100-42-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>20</td>
<td>85</td>
<td>80</td>
<td>340</td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td>50</td>
<td>216</td>
<td>100</td>
<td>432</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>50</td>
<td>215</td>
<td>46.6 (1)</td>
<td>100 (1)</td>
<td>200(1)</td>
</tr>
<tr>
<td>Germany (AGS)</td>
<td>20</td>
<td>86</td>
<td>40 (1)</td>
<td>172(1)</td>
<td>(1) 15 minutes average value</td>
</tr>
<tr>
<td>Germany (DFG)</td>
<td>20</td>
<td>86</td>
<td>40</td>
<td>172</td>
<td></td>
</tr>
<tr>
<td>Hungary</td>
<td>50</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latvia</td>
<td>10</td>
<td>30(1)</td>
<td></td>
<td></td>
<td>(1) 15 minutes average value</td>
</tr>
<tr>
<td>Poland</td>
<td>50</td>
<td>200</td>
<td></td>
<td></td>
<td>(1) Ceiling limit value</td>
</tr>
<tr>
<td>Spain</td>
<td>20</td>
<td>86</td>
<td>40</td>
<td>172</td>
<td></td>
</tr>
</tbody>
</table>

1) GESTIS International Limit values:

http://bgia-online.hvbg.de/LIMITVALUE/WebForm_ueliste.aspx
8.1.2 DNEL/ PNEC values

8.1.2.1 For Poly(styrene-co-butadiene)
DN(M)ELs for workers have not been derived.
DN(M)ELs for the general population have not been derived.
DNEL and PNECs for freshwater, saltwater, sediment and soil have not been derived.

8.1.2.2 For Styrene (CAS 100-42-5; EINECS 202-851-5)
DN(M)ELs for workers
Acute - systemic effects, inhalation 289 mg/m³
Acute - local effects, inhalation 306 mg/m³
Long-term - systemic effects, dermal 406 mg/kg bw/day
Long-term - systemic effects, inhalation 85 mg/m³

DN(M)ELs for the general population
Acute - systemic effects, inhalation 174.25 mg/m³
Acute - local effects, inhalation 182.75 mg/m³
Long-term - systemic effects, dermal 343 mg/kg bw/day
Long-term - systemic effects, inhalation 10.2 mg/m³
Long-term - systemic effects, oral 2.1 mg/kg bw/day

PNEC water
PNEC aqua (freshwater): 0.028 mg/L
PNEC aqua (marine water): 0.0028 mg/L
PNEC aqua (intermittent releases): 0.04 mg/L

PNEC sediment
PNEC sediment (freshwater): 0.614 mg/kg sediment dw
PNEC sediment (marine water): 0.0614 mg/kg sediment dw

8.2 Exposure controls
8.2.1 Technical safety measures
Forced-air and exhaust ventilation in work zones.
Compulsory monitoring of air conditions in work areas.
Sealing and grounding of equipment and communications.
Usage of intrinsically safe equipment.

8.2.2 Personal protection equipment
Hygiene measures
Personal hygiene and industrial sanitation in the production at the facility (wash hands at the end of each work shift and before eating, drinking, smoking or using the toilet).

Respiratory tract
Not required (if is used workplace conditions).
In emergency or in case of increase of hazardous substances concentration at the workplace wear positive pressure MSHA/NIOSH-approved self-contained breathing apparatus (BS EN 14387:2004).

Skin Protection (Hand and Body)
Wear approved protective gloves (Nitrile rubber. BS EN 374)
If contact with hot product is anticipated, gloves should be heat-resistant and thermally insulated.
Wear insulating gloves BS EN407 (heat).
Wear apron or other protective clothing and antistatic boots.
**Eye protection**
Wear Goggles giving complete protection to eyes (BS EN 166).

**8.2.3 Environmental Exposure Controls**
None specific.
Do not allow penetration of the product into water reservoirs, surface and ground water, sewer ducts and soil.
Preventing disposal into water reservoirs of contaminated water without treatment.
Provide sealing of process equipment.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Method</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state (at 20 °C and 1013 hPa)</td>
<td>elastic solid (firm homogeneous spongy mass) rubber is produced in the form of briquettes</td>
<td>visual method</td>
<td>cyellowness index measurement using an automatic spectrometer</td>
</tr>
<tr>
<td>Colour</td>
<td>dark brown</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odour</td>
<td>Peculiar, at processing temperatures slight odor of organic compounds is possible</td>
<td>sensory examination</td>
<td></td>
</tr>
<tr>
<td>pH (Value)</td>
<td>Not applicable, insoluble</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point (°C)</td>
<td>&gt; 200</td>
<td>ASTM E537-98</td>
<td></td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignition temperature (°C)</td>
<td>310±15</td>
<td>ISO 4589-84 (GOST 12.1.044)</td>
<td></td>
</tr>
<tr>
<td>Auto Ignition Temperature (°C)</td>
<td>355 ± 15</td>
<td>ISO 4589-84 (GOST 12.1.044)</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Does not ignite spontaneously, burn only upon entering into a source of fire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper/lower flammability or Explosive limit ranges</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour Pressure (hPa)</td>
<td>Not available (does not evaporate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapour Density (Air=1)</td>
<td>Not available (does not evaporate)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td>1.0</td>
<td>ASTM D 792</td>
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</tr>
<tr>
<td>Solubility (Water)</td>
<td>Insoluble</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>soluble in aromatic and aliphatic solvents (benzene, toluene, heptane, hexane, benzene)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partition Coefficient n-Octanol/Water</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>Not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>Value</td>
<td>Method</td>
<td>Remarks</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------</td>
<td>--------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Viscosity, cSt</td>
<td>Not available</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non explosive</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Granulometry, mm</td>
<td>Not available substancem is not marketed or used in granular form</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Other information</td>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SECTION 10. STABILITY AND REACTIVITY**

**10.1 Reactivity**
Undergoes oxidation, oxidative destruction.

**10.2 Chemical stability**
Stable under normal temperatures and pressures.

**10.3 Possibility of hazardous reactions**
None specific.

**10.4 Materials to avoid**
Strong oxidising agents, acids and alkalis.

**10.5 Conditions to avoid**
Avoid high temperatures, naked flames, sparks, long term exposure to direct sunlight, contact with incompatible materials.

**10.6 Hazardous decomposition products**
None under normal conditions at ambient temperatures. Thermal decomposition products can include trace amounts of styrene. Combustion products: Carbon monoxide, carbon dioxide.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**General information**
No significant health hazard in normal industrial use conditions.

According to CLP Regulation the product is a mixture of poly(styrene-co-butadiene), oil filler (distillates (petroleum) solvent-refined heavy paraffinic):

<table>
<thead>
<tr>
<th>Property</th>
<th>Synthetic poly (styrene-co-butadiene) rubber (CAS #9003-55-8)</th>
<th>Distillates (petroleum), solvent-refined heavy paraffinic (oil filler) (CAS #64741-88-4; EC #265-090-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>LD50/oral/rat: &gt; 5000 mg/kg Inhalation toxicity: very low toxicity. The substance is a non-volatile elastic solid and is produced in the form of briquettes. There is therefore no potential for inhalation exposure.</td>
<td>LD50/oral/rat: &gt;5000 mg/kg (OECD guideline 401) LD50/dermal/rabbit: &gt;5000 mg/kg (OECD guideline 403) LC50/inhalation/4h/rat :&gt;5.0 mg/l (OECD guideline 402)</td>
</tr>
<tr>
<td>Irritation and corrosion</td>
<td>Not irritating or corrosive.</td>
<td>Not irritating or corrosive.</td>
</tr>
<tr>
<td>Sensitisation</td>
<td>Not sensitising.</td>
<td>Not sensitising.</td>
</tr>
</tbody>
</table>
Carcinogenicity | Not carcinogenic. | Not carcinogenic.
Mutagenicity | Not investigated. | Non mutagenic.
Toxicity for reproduction | Not investigated. | NOAEL (oral) = 1000 mg/kg bw/day (OECD 421). Not classified.
Repeated dose toxicity | Not investigated. | Not classified.
Other information | Not investigated. | STOT- single exposure: not classified. STOT-repeated exposure: not classified. Aspiration hazard: not classified.
Reference | Russian Register of Potentially Hazardous Chemical and Biological Substances /FBEPH. | SDS for oil filler from the supplier.

SECTION 12. ECOLOGICAL INFORMATION

General information
At normal conditions thermoplastic rubber is a very stable product. Product does not form toxic compounds with other substances in air and water. The product is poorly biodegradable but does not pose a hazard to the environment. Pollution of water ponds and soil with rubber flakes may occur only if production, handling and transportation rules are not followed, in case of effluent discharge without treatment, as a result of emergencies and accidents.

Property | Synthetic (styrene-co-butadiene) rubber (CAS #9003-55-8) | Distillates (petroleum), solvent-refined heavy paraffinic (oil filler) (CAS #64741-88-4; EC #265-090-8)
General information | At normal conditions rubber is a very stable product. Does not form toxic compounds with other substances in air and water. | Product does not meet the criteria for classification as an environmental hazard. As this substance is a complex petroleum product with unknown and variable composition belonging on the group of petroleum products having variable and low water solubility, aquatic toxicity testing is not technically feasible for this product itself. Aquatic and chronic toxicity is evaluated based on the aquatic toxicity test results of different petroleum products and using toxicity predictions obtained using the PETROTOX model for petroleum substances (CONCAWE; appendix 5 in CSR of other lubricant oils). Based on the available information this substance is not considered to possess acute or chronic aquatic toxicity.
Aquatic toxicity | Not investigated. | Short-term aquatic toxicity
Toxicity to fish (Pimephales promelas): LL50(96 h): >100 mg/l; NOEL: >= 100 mg/l (OECD 203). Toxicity test on aquatic invertebrates (Daphnia magna): EL50 (48 h): >10 000 mg/l; NOEL >= 10 000 mg/l (OECD 202). Toxicity to algae growth inhibition
### Biodegradation

**Abiotic degradation:**
\[
t_{1/2} > 30\text{ d extremely stable.}
\]

**Product is not readily biodegradable (OECD guidelines 301 B and 301F):**
31 % degradation after 28 d (O\textsubscript{2} consumption).

/Biodegradation for this complex hydrocarbon UVCB-substance is based on the test results of different petroleum products and modelling of hydrocarbon blocks using PETRORISK model (CONCAWE).

### Chemical degradation

Not investigated.

Resistant to hydrolysis because this product lacks a functional group that is hydrolytically reactive.

### Bioaccumulative potential

Not investigated.

In accordance with the results of CONCAWE modeling, potential of bioaccumulation or adsorption to soil cannot be neglected.

/As this substance is a hydrocarbon UVCB, testing of BCF-factor and partition-coefficient is not technically feasible. Therefore, bioaccumulation is evaluated based on the hydrocarbon blocks of different petroleum products using PETRORISK model (CONCAWE).

### Mobility in soil

Not investigated.

No data available.

### Results of PBT and vPvB assessment

Can be stated that the substance does not fulfil the PBT criteria (not PBT) and not the vPvB criteria (not vPvB).

No hydrocarbon structure that meets the PBT/vPvB criteria (CONCAWE 2010b).

### Reference

Russian Register of Potentially Hazardous Chemical and Biological Substances /FBEPH.

SDS for oil filler from supplier.

### SECTION 13. DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods**

Disposal should be in accordance with local, state and national legislation.

Waste water has to be treated.

Packaging waste (paper bags) shall be collected and send for recycling. Rubber waste shall be removed to disposal.

**13.2 Additional Information**

European Waste Code (2001/118/EC): 19 12 04 plastic and rubber

### SECTION 14. TRANSPORT INFORMATION

**General**

The product is not covered by international regulations on the transport of dangerous goods.

UN: none.
SECTION 15. REGULATORY INFORMATION

15.1 EU regulations
Authorisations: Not applicable.
Restrictions on use: None

15.2 National regulations:
Unknown.

15.3 Chemical Safety Assessment
Chemical Safety Assessment (CSA) is not required for the substance since it is not subject to registration as a polymer according to the provisions of Article 2(9) of REACH.

Chemical Safety Report has been performed for monomers: 1,3-butadiene (CAS #106-99-0; EC #203-450-8), styrene (CAS #100-42-5; EC #202-851-5) and Distillates (petroleum), solvent refined heavy paraffinic (CAS #64741-88-4; EC #265-090-8).

SECTION 16. OTHER INFORMATION

16.1 Indication of changes

<table>
<thead>
<tr>
<th>VERSION</th>
<th>Date of change</th>
<th>Section</th>
<th>Description of changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version: 1.0</td>
<td>17/03/2010</td>
<td>1.1, 2</td>
<td>First edition created according to recommendations of Regulations (EC) #1907/2006 (Article 31.1).</td>
</tr>
<tr>
<td>Version: 2.0</td>
<td>07/02/2011</td>
<td>1.1, 2</td>
<td>Section 1.1, 2 was updated.</td>
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</tbody>
</table>
| Version: 2.1 | 27/12/2011 | 1.1; 3; 4; 9; 10; 11; 12; 15; 16 | 1. Product name STYRENE-BUTADIENE RUBBER (DSSK) was changed into STYRENE-BUTADIENE RUBBER (SSBR) and grade’s names (DSSK - 1810 - M27; DSSK – 2545 - M27; DSSK – 2525 - M27; DSSK - 2560 - M27) were changed into (SSBR - 1810 TDAE; SSBR - 2545 TDAE; SSBR - 2525 TDAE; SSBR – 2560 TDAE) accordingly.  
2. Section 1.1 was updated.  
3. DISCLAIMER was added on the first page.  
4. General information subsection was added in Sections 4.  
5. Specific hazard subsection was updated in Section 6.  
LC50, LD50 were added in Section 11.  
5. Sections 3, 9, 10; 15, 16 were fully updated. |
| Version: 2.2 | 14/02/2012 | 1; 3-9; 11-13; 16 | 1. Section 1.3 was updated (E-mail address, Emergency phone for suppliers).  
2. Sections 4: General information subsection was added. Inhalation Subsections were updated was updated.  
3. Section 5. Extinguishing media, Special fire fighting procedures were updated.  
4. Section 6: Individual safety measures, Environmental precautions were updated.  
5. Section 7. Storage precautions, Handling Subsections were updated.  
6. Section 8: Personal protective equipment, |
Hygiene measures, Technical safety measures
Subsections were updated.
7. Sections 9. Appearance; Flammability; Average molecular weight were added.
8. Section 13. Disposal methods subsection were updated.
9. Sections 3, 11, 12 were fully updated.
10. Sections 16.1 and 16.3 were fully updated.

<table>
<thead>
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<th>Version: 2.3</th>
<th>21/10/2014</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Section 1: Grades SSBR-4040 TDAE; SSBR-3750 TDAE were added. Grades SSBR-1810 TDAE; SSBR -2545 TDAE; SSBR -2525 TDAE were removed.</td>
<td></td>
</tr>
<tr>
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<td>2. Sections 2÷16 were fully reconfigured, new information was added.</td>
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</table>

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<th>30/10/2015</th>
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<tr>
<td></td>
<td>1. Sections 1; 3. Grade SSBR-3755 TDAE was added.</td>
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<tr>
<td></td>
<td>2. Section 1.3. Supplier’s information was updated</td>
<td></td>
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<tr>
<td></td>
<td>3. Sections 2.1; 3. Only CLP data were applied.</td>
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<td>4. Section 16.1 was updated.</td>
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<th>21/07/2015</th>
<th>1.3</th>
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<tbody>
<tr>
<td></td>
<td>Supplier’s contact details were updated.</td>
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</table>

### 16.2 Abbreviations and acronyms

- **EC50**: Effective concentration of the substance that causes specific measured effect for 50% of the test organisms
- **EL50**: EL50 - Effective loading rate of the substance that causes specific measured effect for 50% of the test organisms
- **LL50**: Lethal loading rate of the substance that kills 50% of the test organisms
- **LC50**: Lethal Concentration to 50% of a test population
- **LD50**: Lethal Dose to 50% of a test population (Median Lethal Dose)
- **NOAEL**: No Observed Adverse Effect Level
- **NOEC**: No Observed Effect Concentration
- **OECD**: Organization for Economic Co-operation and Development
- **STOT**: Specific Target Organ Toxicity
- **PBT**: Persistent, bioaccumulative, toxic chemical
- **vPvB**: Very Persistent, Very Bioaccumulative
- **UN**: United Nations
- **WGK**: Wassergefährdungsklasse (German: Water Hazard Class)

### 16.3 Key literature references and sources

**EU DIRECTIVES**


NATIONAL REGULATIONS (GERMANY)
Major Accident Hazard Legislation 82/501/EWG.

Russian Register of Potentially Hazardous Chemical and Biological Substances (FBEPH). BENZENE, ETHENYL-, POLYMER WITH BUTA-1,3-DIENE. Dossier of potentially hazardous chemical and biological substance BT# 001343, 1998, Ministry of Health of the Russian Federation.

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END OF SDS