SIBUR TOGLIATTI LLC

SAFETY DATA SHEET


ISOPRENE RUBBER (IR)
GRADE IR SKI-3

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

1.1 Product identifier

Name of Substance: Polyisoprene
Name of IUPAC: Poly-2-methyl-butadiene-1,3
Synonyms: cis-1,4-polyisoprene; Isoprene Rubber (IR)
CAS: 9003-31-0
Trade names: IR SKI-3
Registration # for isoprene: 01-2119457891-29-0001
(CAS #78-79-5; EC #201-143-3)
Index No(CLP): 601-014-00-05

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Identified use(s): use in production of tyre production, technical rubber parts (profiles, hoses, shoe soles, belt production, technical rubber goods), rubber compound, medical production.

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.

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, IB and 2, skin sensitisier category 1, respiratory sensitisier 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 1907/2006 (articles 31.1; 31.2) and Commission Regulation (EU) No 453/2010.

This e-SDS is developed in good faith to provide a customer with sufficient information allowing to take necessary measures to comply with relevant HSE requirements.
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, Paris, 75008, France
Contact phone: +33 1 42 99 73 50
Fax: +33 1 42 99 73 99
Email address: yury.severinchik@gazprom-mt.com

Suppliers
Company name: SIBUR Togliatti LLC
Address: Novozavodskaya str. 8, 445007, Togliatti, Samara Region, Russian Federation
Phone: +7 8482 29-91-51; 23-11-04; 29-32-69
Fax: +7 8482 22-14-41; 70-15-18
E-mail Address: officetk@tltk.ru; office@tltk.ru
Emergency phone: +7 8482 29-91-51 (round the clock)

1.4 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

Classification
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.

2.3 Specific hazard
No significant health hazard in normal industrial use conditions.
Contact with melted/heated product may cause thermal burns.
In the course of polyisoprene processing the emission of volatile products of thermal-oxidative degradation is possible (see section 10).
Products of thermal-oxidative degradation at long term inhalation cause generic toxic, irritating and allergic effects (see sections 8; 10).
Combustible solid.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

According to CLP Regulation the product is a mixture of Polymer and Additives.

Grade IR SKI-3 is a synthetic rubber consisting of at least 98.0% polymerized isoprene; 0.5 ÷ 1.5% calcium distearate (CAS#1592-23-0/EC#216-472-8); 0.15-0.4% antioxidant (CAS#82209-88-9; EC#617-305-5).

FORMULA (iC₅H₈)n
       (- CH₂ – C = CH – CH₂ -)n
        |                   CH₃
<table>
<thead>
<tr>
<th>Name</th>
<th>EC #</th>
<th>CAS #</th>
<th>Content, %</th>
<th>Classification EC#1272/2008 (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyisoprene</td>
<td>None</td>
<td>9003-31-0</td>
<td>≥ 98.0</td>
<td>none</td>
</tr>
</tbody>
</table>

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
Spontaneous penetration of Polyisoprene rubber into human organism is impossible. Polyisoprene rubber at normal conditions is non-volatile, causes no exhaustive effects. Inhalation poisoning is unlikely.
Contact with eyes may cause mechanical damage.
Contact with skin has no effects.
If eye/skin contact with hot product occurs, obtain immediate medical attention.
Thermal decomposition products inhalation may irritate respiratory system, eye irritation.

Inhalation
If decomposition or thermal destruction products are inhaled:
Move an 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:
Rubber particles in case of accidental penetration of the airways may cause mechanical irritation of respiratory tract, cough. In this case the following actions are to be taken.
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 aid.

Skin contact
After contact with hot product immediately wash skin with large volume of cold water. Get medical attention.

Eye contact
Rinse immediately eye with plenty of low pressure water for at least 15 minutes.
Remove 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.
Contact with hot product may cause serious burns.
Ingestion/aspiration Symptoms: Ingestion/aspiration may cause irritation of digestive tract. May cause gastrointestinal blockage.
4.3 Notes for the doctor
If burn is present, treat as any thermal burn, after decontamination. 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
Suitable extinguishing media: Use water or water spray, foam, dry chemical, carbon dioxide, or water spray.
Unsuitable extinguishing media: Do not use water jets.

5.2 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 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases
Combustion generates irritating and toxic fumes.
Burning causes emissions of carbon oxide.
Unusual fire & explosion hazards: None.

5.4 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 Personal precautions, protective equipment and emergency procedures
Take precautionary measures against static discharges.
Ensure adequate ventilation.
For additional information, refer to Section 8, Exposure Controls and Personal Protection equipment.

6.2 Individual safety measures
Remove sources of ignition, provide workplace ventilation, air monitoring of the workplace, avoid contact with skin and eyes.

6.3 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.

6.4 Spill clean-up methods
When the product gets into water or ground collect the product in a separate container for recycling or disposal.

6.5 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.
Avoid all sources of ignition.
Take precautionary measures against static discharges. Provide thorough sealing and grounding of process equipment.

Provide input-extract and local ventilation of work zones to ensure that the occupational exposure limit is not exceeded. In case of insufficient ventilation, wear suitable respiratory equipment (See Section: 8). Regularly control work zone air.

Do not swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin.
Do not ingest or inhale combustion or decomposition products.
Workers should be protected from the possibility of contact with molten product.

7.2 Storage precautions
Store in a dry, well-ventilated area, at temperature not exceeding 40 °C.
Keep away from direct sunlight, atmospheric precipitation and incompatible substances in a closed container.

7.3 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 Polyisoprene (CAS: 9003-31-0): not established

Occupational Exposure Limits for the possible products of thermal-oxidative degradation (see section 10):
for isoprene: International Limit Values

<table>
<thead>
<tr>
<th>SUBSTANCE Isoprene CAS #78-79-5</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>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latvia</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany (AGS)</td>
<td>3</td>
<td>8.4</td>
<td>24 (1)</td>
<td>67.2 (1)</td>
<td>(1) 15 minutes average value</td>
</tr>
<tr>
<td>Germany (DFG)</td>
<td>2</td>
<td>8.5</td>
<td>24</td>
<td>68</td>
<td>STV 15 minutes average value</td>
</tr>
<tr>
<td>Switzerland</td>
<td>3</td>
<td>8.5</td>
<td>24</td>
<td>68</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 Polyisoprene
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 Isoprene (CAS 78-79-5; EINECS 201-143-3)

**DNEL for workers**
Long-term - systemic effects, dermal 23.7 mg/kg bw/day
Long-term - systemic effects, inhalation 8.4 mg/m³

**DNELs for the general population**
Long-term - systemic effects, dermal 71 mg/kg bw/day
Long-term - systemic effects, inhalation 8.4 mg/m³
Long-term - systemic effects, oral 0.213 mg/kg bw/day

**PNEC water**
PNEC aqua (freshwater): 0.93 mg/L
PNEC aqua (marine water): 0.93 mg/L
PNEC aqua (intermittent releases): 0.93 mg/L

**PNEC sediment**
PNEC sediment (freshwater): 14.0 mg/kg sediment dw
PNEC sediment (marine water): 14.0 mg/kg sediment dw

**PNEC soil**
PNEC soil: 2.4 mg/kg soil dw

**PNEC sewage treatment plant**
PNEC STP: 14.55 mg/L

8.2 Exposure controls
8.2.1 Technical safety measures
Provide adequate 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
Use of personal protective equipment must be consistent with good occupational hygiene practices.
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).

**Eye/face protection**
Wear Goggles giving complete protection to eyes (BS EN 166).

**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.

**Respiratory Protection**
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).

### 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>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state (at 20 °C and 1013 hPa)</td>
<td>Elastic solid (rubber is produced in the form of briquettes)</td>
</tr>
<tr>
<td>Colour</td>
<td>from light grey to dark brown</td>
</tr>
<tr>
<td>Odour</td>
<td>Peculiar, at processing temperatures slight odour of organic compounds is possible</td>
</tr>
<tr>
<td>pH (Value):</td>
<td>Not applicable, insoluble</td>
</tr>
<tr>
<td>Melting Point (°C) / Freezing Point (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Gas transition point(°C)</td>
<td>“-”62</td>
</tr>
<tr>
<td>Initial boiling point/boiling range (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Ignition temperature (°C)</td>
<td>305</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Does not ignite spontaneously, burn only upon entering into a source of fire</td>
</tr>
<tr>
<td>Upper/lower flammability or Explosive limit ranges</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Pressure (hPa)</td>
<td>Not available (does not evaporate)</td>
</tr>
<tr>
<td>Vapour Density (Air=1)</td>
<td>Not available (does not evaporate)</td>
</tr>
<tr>
<td>Density (g/cm³)</td>
<td>0.92</td>
</tr>
<tr>
<td>Solubility (Water)</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Soluble in aromatic solvents</td>
</tr>
<tr>
<td>Partition Coefficient n-Octanol/Water</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto Ignition Temperature (°C)</td>
<td>325</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Moony Viscosity ML 1+4 (at 100 °C)</td>
<td>65-85 conv. units</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Granulometry</td>
<td>Not applicable, substance is not marketed or used in granular form.</td>
</tr>
<tr>
<td>Other information</td>
<td>None</td>
</tr>
</tbody>
</table>
SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity
Stable under all ordinary circumstances at ambient temperatures. Lack of antioxidant causes hydration, halogenation, cyclization, isomerization, oxidation, oxidative destruction.

10.2 Chemical stability
Stable under normal conditions. High temperatures may cause emissions of isoprene.

10.3 Possibility of hazardous reactions
None specific.

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

10.5 Materials to avoid
Oxidising agents, alkalis, acids.

10.6 Hazardous decomposition products
None under normal conditions at ambient temperatures. Decomposition products can include trace amounts of isoprene, carbon oxide, etc.

SECTION 11. TOXICOLOGICAL INFORMATION

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routes of Exposure</td>
<td>At ambient temperature the product is a non-volatile elastic solid. There is no potential for inhalation exposure.</td>
</tr>
<tr>
<td>Acute toxicity</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50: 1000 mg/kg bw (rat) (FBEPH. BT#000461, 1995)</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Dermal</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Irritation/Corrosivity</td>
<td></td>
</tr>
<tr>
<td>Skin irritation/corrosion</td>
<td>Not classified. Skin contact with melted/heated product may cause serious thermal burns.</td>
</tr>
<tr>
<td>Eye irritation</td>
<td>Not classified. Contact with eyes may cause mechanical damage. Eye contact with melted/heated product may cause serious thermal burns. Thermal decomposition products may cause irritation of eye.</td>
</tr>
<tr>
<td>Respiratory tract</td>
<td>Not classified. Thermal decomposition products inhalation may cause irritation of respiratory system.</td>
</tr>
<tr>
<td>Sensitization</td>
<td></td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Property</td>
<td>Results</td>
</tr>
<tr>
<td>---------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Respiratory system</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td><strong>Repeated dose toxicity</strong></td>
<td></td>
</tr>
<tr>
<td>Chronic oral toxicity</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Chronic inhalation toxicity</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Chronic dermal toxicity</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td><strong>Germ cell mutagenicity</strong></td>
<td></td>
</tr>
<tr>
<td>In vitro data</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>In vivo data</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td><strong>Carcinogenicity</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Toxicity for reproduction</strong></td>
<td></td>
</tr>
<tr>
<td>Effects on fertility</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Developmental toxicity</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>STOT - single exposure</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>STOT - repeated exposure</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Other effects</td>
<td>none</td>
</tr>
</tbody>
</table>

## SECTION 12. ECOLOGICAL INFORMATION

### General information

At normal conditions 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.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic toxicity</td>
<td>Not expected to be acutely toxic, but material may mechanically cause adverse effects if ingested by waterfowl or aquatic life.</td>
</tr>
<tr>
<td>Fish</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Aquatic invertebrates</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Sediment organisms</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Toxicity to soil macro-organisms/micro-organisms:</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td>Toxicity to terrestrial plants</td>
<td>Not classified. No data available.</td>
</tr>
<tr>
<td><strong>Persistence and degradability</strong></td>
<td>No specific ecological data are available for this product. This water-insoluble rubber is expected to be inert in the environment. No appreciable biodegradation is expected.</td>
</tr>
<tr>
<td>Environmental distribution</td>
<td>No specific ecological data are available for this product.</td>
</tr>
<tr>
<td>Bioaccumulation:</td>
<td>Effects on nature due to bioaccumulation are not known.</td>
</tr>
<tr>
<td>Results of PBT and vPvB assessment</td>
<td>Not classified as PBT or vPvB.</td>
</tr>
<tr>
<td>Other adverse effects</td>
<td>No information available.</td>
</tr>
</tbody>
</table>
Water hazard classification:
According to the German VwVwS: WGK- 0 (not classified).

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 shall be collected and send for recycling. Rubber waste shall be removed to disposal.

13.2 Additional Information

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 isoprene (CAS #78-79-5; EC #201-143-3).

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>19/02/2010</td>
<td>All</td>
<td>Initial SDS.</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>
</tr>
</tbody>
</table>
| Version: 2.1 | 22/12/2011     | 1.1; 3; 4; 5; 7; 9; 10; 11; 15; 16 | 1. Product name SKI-3 and SKI-3S were renamed into IR SKI-3, IR SKI-3 NST accordingly.  
2. Index No (CLP) was added to Section 1.1 
3. CAS # was added to Section 1.1 
4. DISCLAIMER was added on the first page 
5. Subsection «Specific hazard» was fully updated in Sections 5. 
6. DL0 was added in Section 11. 
7. Sections 3, 4; 7; 9, 10; 15, 16 were fully updated. |
<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: 2.2</td>
<td>20/03/2013</td>
<td>All</td>
<td>1. Sections: 2; 4; 9; 10; 11; 12; 14 were fully reconfigured. 2. Sections: 1.2; 3; 5-8; 13; 15; 16 were fully updated.</td>
</tr>
<tr>
<td>Version: 2.3</td>
<td>25/02/2015</td>
<td>1.1, 3, 8.1.1</td>
<td>1. CAS number for ISOPRENE RUBBER (IR) GRADES IR SKI-3, IR SKI-3 NST was updated in sections: 1.1, 3, 8.1.1</td>
</tr>
<tr>
<td>Version: 2.4</td>
<td>28/05/2015</td>
<td>Title; 1.1; 2.1; 3; 9; 16</td>
<td>1. In the Title and Sections 1.1, 3; 9 IR SKI-3 NST grade was removed. 2. Sections 2, 3 were updated according to CLP Regulation requirements. 3. Section 16.2 from the previous version was removed. Section 16 was renumbered. 4. Section 9. Colour parameter was updated.</td>
</tr>
<tr>
<td>Version: 2.5</td>
<td>01/07/2016</td>
<td>Title, 1.3</td>
<td>Company name of the Supplier was changed from «Togliattikauchuk» on «SIBUR Togliatti».</td>
</tr>
</tbody>
</table>

16.2 Abbreviations and acronyms

AGS The German Committee on Hazardous Substances (Ausschuss für Gefahrstoffe – AGS)
DFG Germany Research Foundation
DNEL Derived No Effect Level
LD50 Lethal Dose to 50% of a test population (Median Lethal Dose)
LTEL Long Term Exposure Limit
OSHA Occupational Safety & Health Administration (USA)
PEC Predicted No Effect Concentration
PNEC Predicted No Effect Concentration
PBT Persistent, bioaccumulative, toxic chemical
vPvB Very Persistent, Very Bioaccumulative
STEL Short Term Exposure Limit
STOT Specific Target Organ Toxicity
TWA Time Weighted Average

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).
Poly-2-methyl-1,3-butadiene (cis-1,4-polyisoprene). Dossier of potentially hazardous chemical and biological substance # BT 000461, 1995, Ministry of Health of the Russian Federation.

DISCLAIMER

This information is based on our current level of knowledge. This information may be subject to revision as new knowledge and experience becomes available, and SIBUR makes no warranties and assumes no liability in connection with any use of this information. Since SIBUR cannot be aware of all aspects of your business and the impact the REACH Regulation has for your company, SIBUR strongly encourages you to get familiar with the REACH Regulation in order to comply with its requirements and timelines.

END OF SDS