SECTION 1: Identification of the substance / mixture and of the company / undertaking

1.1. Product identifier

Trade names: Cis-isoprene synthetic rubber
SKI-3S

Substance name: Poly (2-methyl-1,3-butadiene)
Cis-1,4-polyisoprene
Polyisoprene, cis

Molecular formula: \([\text{C}_5\text{H}_{8}]_n\)

EC Name: Absent

EC No.: Not assigned.

CAS No.: 9003-31-0

Registration No: Rubbers (polymers) are not subject to registration in accordance with provisions of Article 2 (9) of REACH Regulation.

Monomer substance (isoprene CAS No. 78-79-5, EC X2201-143-3) is registered in accordance with provisions of Article 6 (3) of Regulation (EC) N21907/2006.

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

Identified uses: Rubber is used in the production of tyres, mechanical rubber goods (moulded and not moulded parts, rubber shoes). Cis-isoprene synthetic rubber is used instead of natural one.

Uses advised against: Not intended for the production of mechanical rubber goods used in food and medicine.

Exposure scenario(s): Not required for rubbers (polymers).

1.3. Details of the supplier of the SDS

Non-EU manufacturer: Open Joint-Stock Company “Sintez-Kauchuk” (JSC « Sintez-Kauchuk »)
14 Technicheskaya ulitsa, Sterlitamak
The Republic of Baslikortostan, 453110
The Russian Federation
Contact person: Vildan Rysaev
Tel. / Fax: +7 (812) 495 97 38
1.4. Emergency telephone number
Non-EU manufacturer: +7 812 495 97 38
Opening hours: 8:30AM - 5:30PM (GMT+5)
Lunch break: 12:45 - 13:33 (GMT +5)
Day-off: Saturday, Sunday

European Country Emergency Number: Please, refer to Annex I of this e SDS for the list of Emergency telephones of European Poisons Centers.

SECTION 2: HAZARDS IDENTIFICATION
2.1. Classification of the substance or mixture -
Classification according to the Regulation (EC) No. 1272/2008:

Classification under Regulation Not required (EC) No. 1272/2008:

2.2. Label elements
Labeling according to CLP Not required Regulation (EC) 1272/2008:

2.3. Other hazards
Human Health Hazards: Under normal temperature and pressure the product represents no direct human health hazard. Under high temperatures it is exposed to destruction with the emission of isoprene vapors and its compounds. For additional information refer to sections 7, 8, 9 of the present SDS.

SECTION 3: Composition I information on ingredients
3.1. Substances
Main constituents: CAS No. Chemical name % (mass) EC No.
9003-31-0 Poly (2-methyl-1,3-butadiene) >98 Not assigned

SECTION 4: First aid measures
4.1. Description of first aid measures
If on skin: Rinse skin with water and soap. If necessary get medical attention.
If in eyes: Produces mechanical irritation. Remove contact lenses. Rinse with plenty of water for several minutes. If necessary get medical attention.
If inhaled: Under normal conditions volatile components are not emitted.
If ingested: Give plenty to drink. Get medical attention

4.2. Most important symptoms and effects, both acute and delayed
Symptoms: Absent

4.3. Indication of any immediate medical attention and special treatment needed
Acute exposure: Absent. If necessary for medical treatment refer to medical professionals.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media: Water.
Mechanical foam.
Carbon dioxide and powder.
Asbestos cloth.
Sand.
Unsuitable extinguishing media: Not regulated

5.2. Special hazards arising from the substance or mixture
Unusual fire hazards: Combustible solid. Burns with the emission of heavy black fume and toxic gases (carbon oxides, soot). When burned the product softens and spreads increasing the fire area.

5.3. Advice for firefighters
Special fire fighting procedures: Enclose the fire area. Extinguish from the maximal distance. Extinguish gases and vapors produced during burning with water spray. After putting out the fire cool the product with water to prevent self-ignition.
Personal protection: Apply special protective clothes, shoes, personal eye protection. For respiratory protection use self-contained breathing apparatus with forced air supply.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel
Precautionary measures: Special precautions are not required. In case of accidental release of the product comply with fire safety measures.

6.1.2. For emergency responders
Similarly to sub-paragraph 6.1.1. of the SDS.

6.2. Environmental precautions
Accidental Releases: No direct environmental hazard. Special precautions are not required.
6.3. Methods and material for containment and cleaning up
The following steps should be undertaken:
Collect into containers for reuse or disposal.
Do not throw into refuse collection places.

6.4. Reference to other sections
Other information
For information on protective equipment refer to section 8 of the present SDS.
Refer to section 13 of the present SDS for further information on disposal conditions.

SECTION 7: Handling and storage -

7.1. Precautions for safe handling
Measures to prevent fire:
Take fire precautions.
Avoid contacts with open fire and sparks, also heating up above self-ignition temperature.
Use earthed equipment to avoid static electricity.

Measures to prevent aerosol and dust formation:
Use suction-and-exhaust ventilation.

Handling:
Do not eat, drink and smoke during the work.
Wash hands before eating.
At the end of the work take shower and change your clothes.

7.2. Conditions for safe storage, including any incompatibilities
Storage:
Store in closed package, in covered cool, well-ventilated storehouses.
Avoid direct sunlight and atmospheric precipitation.
Maximal amount of containers in a stack - no more than three.
The height of packing in paper bags - no more than 1,2 m.
When stockpiling, keep breaks between rows.

Substances, incompatible in joint storage:
Strong oxidizers, combustible and self-inflammable substances, concentrated acids, alkali and alkali metals.

7.3. Specific end use(s)
Not required for rubbers (polymers).

SECTION 8: Exposure controls / personal protection

8.1. Control parameters
Harmonized occupational exposure limit values have not been established in the EU and at the international level.

The product by its structure is analogous to the natural rubber and is a high molecule polymer isoprene with linear structure of the molecular chain that contains no free monomer.

Technological additives and mixtures are present in the product as substances bound into or onto matrix. Nevertheless under industrial use conditions at the stages of high temperature processing low molecule polymer compounds of isoprene can be emitted. The intensity of emission depends on the processing conditions (temperature regimes, mechanical mixing processes).

International values of safe exposure level for the most similar structural analogue - monomer isoprene are summarized below to make safe exposure assessment of low molecule compounds of isoprene.

<table>
<thead>
<tr>
<th>Substance</th>
<th>Control parameter</th>
<th>Standard</th>
<th>Data source</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isoprene</td>
<td>TWA (8-h)</td>
<td>2 ppm</td>
<td>US, AIHA</td>
<td>No harmonized occupational exposure limit values are established for this substance in EU. The stated safe exposure limit values are not legally binding and referred here for recommendation purpose only. Consult the current national/regional/local legislation to specify occupational Exposure Limit.</td>
</tr>
</tbody>
</table>

**8.2. Exposure controls**

**8.2.1 Engineering controls and good work practices:**

Technical measures in the work practice shall provide constant and efficient disposal of the substances emitted during thermoprocessing and compliance of the working place with the requirements established by the national/regional/local standards.

Premises designated for work with the product shall be supplied with the supply-exhaust ventilation corresponding to the industrial work conditions. Depending on the technological equipment peculiarities of the stages of thermoprocessing local exhaust ventilation may be required.

- Periodic environmental control at workplaces shall be carried out in accordance with the current national/regional/local legislation.
8.2.2 Individual protective measures such as personal protective equipment:

Personal protective equipment: The choice of personal protective equipment shall be based on the conditions of product processing and common environmental parameters in the working area.

Personal protective equipment shall comply with national/regional/local legislation requirements.

Respiratory Protection: When handling the product constant use of respiratory protection is usually not required. It is recommended to use respiratory equipment as respiratory protection.

Skin protection: Cotton clothing, closed shoes, solid gloves.

Eye and Face Protection: Protective glasses/face masks.

Hygiene Facilities: Do not eat, drink and smoke during work. The working place should be kept in adequate sanitary conditions. Wash hands and face before eating. Take a shower after work.

8.2.3 Environmental Exposure controls:

Emission sources: Ventilation releases.

Summary of RMM relevant to environment: Periodic control for emission sources shall be carried out in accordance with the current national/regional/local legislation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance: At normal conditions solid homogeneous substance from white to beige color in the form of rectangularly shaped briquette.

Odour: Low odour.

Odour threshold: No data are available.

pH: Not applicable.

Melting point/freezing point: Glass - transition temperature is minus 70°C. Melting point is not specifically defined.

Initial boiling point and boiling point: Not applicable.

Flash point: 275°C

Evaporation rate: Not applicable.

Auto-ignition temperature: 340°C

Decomposition temperature: No data are available.

Viscosity: No data are available.

Flammability: Not flammable.

Upper/lower flammability or explosive limits: Not applicable.
Vapour pressure: Not applicable.
Vapour density: Not applicable.
Relative density: 0.9-0.92 g/cm³
Partition coefficient: n-octanol/water: Not applicable.
Explosive properties: Not explosive.
Oxidising properties: Not oxidizing.

9.2. Other information

Henry's law constant (HLC): Not applicable.
Conversion factors: Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity
Reactivity: Under normal conditions reactivity is not observed

10.2. Chemical stability
Stability: Stable under normal temperature and pressure and if storage, handling conditions are complied with.

10.3. Possibility of hazardous reactions
Special precautions: Not applicable.

10.4. Conditions to avoid
Conditions contributing to instability: Incompatible substances, high temperatures, open flame, direct sunlight.

10.5. Incompatible materials
Incompatabilities: Strong oxidizers, combustible and self-inflammable substances, concentrated acids and alkalis, alkali metals.

10.6. Hazardous decomposition products
Hazardous decomposition products: Products of combustion.

SECTION 11: Toxicological information

General characteristic of the product: Complete toxicity testing of the product has not been made.
The cases of acute poisoning during industrial use are not described.
Under normal temperature and pressure the product does not affect the human health.

Acute toxicity: No data are available.
Skin corrosion/irritation: No data are available.
Serious eye damage/irritation: No data are available.
Respiratory irritation: No data are available.
Respiratory or skin sensitization: No data are available.
Germ cell mutagenicity: No data are available.
Carcinogenicity: No data are available.
Reproductive toxicity: No data are available.
STOT-single & repeated exposure: No data are available.

SECTION 12: Ecological information

The special assessment of the potential negative influence of the product on the environment has not been made. Under normal conditions rubber is expected to represent no direct environmental hazard.

12.1. Toxicity
No data are available.

12.2. Persistence and degradability
No data are available.

12.3. Bioaccumulative potential
No data are available.

12.4. Mobility in soil
No data are available.

12.5. Results of PBT and vPvB assessment
No data are available.

12.6. Other adverse effects
No data are available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Disposal: Product disposal shall occur only in compliance with current national/regional/local legislation requirements.
Disposal of containers: Refer to national / regional / local legislation in force on package disposal conditions.

SECTION 14: Transport information

14.1. UN number
UN No: Not assigned.

14.2. UN proper shipping name
UN Proper Shipping Name: Not applicable.
14.3. Transport hazard class(es)
UN Class: Not assigned.

14.4. Packing group
UN Packing Group: Not applicable.

14.5. Environmental hazards
Environmental Hazards: Not classified.

14.6. Special precautions for users
Notes: A number of restrictions may apply to materials subject to local/national/regional classifications requirements. Please refer to the appropriate regulation for specific details regarding classification requirements and restrictions.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
No data are available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Export and Import of Dangerous Chemicals (Regulation (EC) No. 689/2008) Information:
Poly (2-methyl-1,3-butadiene) is not listed in the Annex I of Regulation (EC) No. 689/2008.

Regulation REACH (EC) No. 1907/2006:
Polymers are not subject to registration in accordance with provisions of Article 2(9) of REACH Regulation.
Monomer substance (isoprene CAS No. 78-79-5, EC N 20 1-143-3) is registered in accordance with provisions of Article 6 (3) REACH Regulation.

15.2. Chemical safety assessment
GSA: Chemical Safety Assessment is not required for polymers in accordance with provisions of REACH Regulation.
Monomer (isoprene):
Chemical Safety Assessment has been carried out for this chemical in accordance with provisions of REACH Regulation

SECTION 16: Other information

16.1 Additional identifiers of article
Additional Cas No.: 104389-31-3
Note: Additional CAS number is designated for polyisoprene rubbers with longer polymer chain and, in particular, cis-polyisoprene.

16.2. Abbreviations and acronyms:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS No</td>
<td>Chemical Abstracts Service number</td>
</tr>
<tr>
<td>CLP</td>
<td>Classification Labelling Packaging Regulation; Regulation (EC) No. 1272/2008</td>
</tr>
<tr>
<td>EC</td>
<td>European Community</td>
</tr>
</tbody>
</table>
Safety Data Sheet

Rubber SKI-3S  
CAS No. 9003-31-0

Version: 2.00  
Replaces version: 1.04
Revision date: 01.06.2015

EC  
European Commission

EEC EC-  
European Economic Community

Number  
EINECS and ELINCS Number (see also EINECS and ELINCS)

EINECS  
European Inventory of Existing Commercial Substances

ELINCS  
European List of notified Chemical Substances

SDS  
Safety Data Sheet

GHS  
Globally Harmonized System

REACH  

TWA  
Time-Weighted average

16.3. Document History:

<table>
<thead>
<tr>
<th>VERSION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 1.00</td>
<td>First redaction</td>
</tr>
<tr>
<td>Version 1.01</td>
<td>In clause 1.3 have been changed the contact details of the manufacturer in connection with contact person change. In clauses 1.1, 3.1 have been changed CAS number from</td>
</tr>
<tr>
<td>Version 1.02</td>
<td>CAS #104389-31-3 to CAS #9003-31-0, because: -CAS #9003-31-0 is main for polyisoprene,</td>
</tr>
<tr>
<td>Version 1.03</td>
<td>-CAS #104389-31-3 is additional and designated for polyisoprene rubbers with longer polymer chain and, in particular, cis-polyisoprene.</td>
</tr>
<tr>
<td>Version 1.04</td>
<td>In clause 1.3 have been changed the contact details of the</td>
</tr>
<tr>
<td>Version 2.00</td>
<td>In clause 1.3 have been changed the contact details of the. Undated sections 2.1 and 2.2</td>
</tr>
</tbody>
</table>

16.4. Disclaimer:

The information contained herein is accurate and is based on the present state of our knowledge. Although, we make no representations that information contained herein is entirely accurate and complete. We do not warranty that these are the only hazards that exist because chemical substances may be of unknown hazards and shall be used with caution. We assume no responsibility regarding the suitability of this information for the user’s intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s).
Annex I

IPcs directory of poison centres: European Region

Info from the International Programme on Chemical Safety (IPCS) publicly available at http://www.who.int/ipcs/poisons/centre/directory/euro/enl (Data obtained on January 22nd 2015)

Austria, Emergency telephone number: +43 1406 43 43, Vergiftungsinformationszentrale (Poisons Information Centre), Allgemeines Krankenhaus, Waehringer Geurtel 18-20, Vienna

Belgium, Emergency telephone number: +32 70 245 245, Centre Anti-Poisons/Antigifcentrum, Hôpital Militaire Reine Astrid, Rue Bruyn, Brussels

Bulgaria, Emergency telephone number: +359 2 9154 378, +359 887 435 325, National Toxicological Information Centre, National Clinical Toxicology Centre, Emergency Medical Institute "Pirgov", 21 Tolsteben Boulevard, Sofia

Croatia, Emergency telephone number: +38 1 234 8342, Poisons Control Centre, Ksavarska Cesta 2, Zagreb

Czech Republic, Emergency telephone number: +420 22 49 192 93, Poisons Information Centre, 2 Ksavarska Rd, Prague

Denmark, Emergency telephone number: +45 82 12 12 12, Poison Information Centre, Bispebjerg Hospital, Bispebjerg Bakke 23, 60, 1, Copenhagen

Finland, Emergency telephone number: +358 9 471977, Finnish Poison Information Centre, Tukholmankatu 17, Helsinki

France, Emergency telephone number: +33 140 05 48 48, Centre Antipoison et de Toxicovigilance de Paris, Hôpital Fernand Widal, 200 rue du Faubourg Saint-Denis, Paris

Germany, Emergency telephone number: +49 30 19240, Clinical Toxicology and Berlin, Institute of Toxicology Poison Information Centre, Oranienburger Strasse 285, 13437 Berlin

Greece, Emergency telephone number: +30 2107 793777, Poisons Information Centre, Children's Hospital "Aglaia Kyriakou", Athens

Hungary, Emergency telephone number: +36 8020 1199, Health Toxicological Information Service, H- 1096 Budapest, Nagyvárad tdr 2, Budapest

Iceland, Emergency telephone number: +354 543 2222, Iceland Poisons Information Centre, Landspitali University Hospital, Foss Vogi, Reykjavik

Ireland (Republic of), Emergency telephone number: +353 1 8379964, +353 1 809 2166, Poisons Information Centre of Ireland, Beaumont Hospital, P.O. BOX 1297, Beaumont Road, Dublin

Israel, Emergency telephone number: +972 4 854 1900, Israel Poisons Information Centre, Rambam Health Care Campus, 6 Ha'Alyia Street, Haifa

Italy, Emergency telephone number: +39 06 305 4343, Poison Centre - Catholic University School of Medicine Largo Agostino Gemelli 8, Rome

Estonia, Emergency telephone number: 16662, Estonian Poison Information Centre, Gonsiori 29, Tallinn

Latvia, Emergency telephone number: +370 5 230 20 10, +370 687 533 78, Lithuania Poisons Control and Information Bureau, Siltnamiu Str 29, Vilnius

Netherlands, Emergency telephone number: +31 30 274 88 88, National Poisons Information Centre, The Netherlands, University Medical Centre Utrecht, Postbus 85500, Utrecht

Norway, Emergency telephone number: +47 22 591300, Department for Poisons Information, Norwegian Directorate of Health, St. Olavs plass, Oslo

Poland, Emergency telephone number: +48 22 619 66 54, Warsaw Poison Information and Control Centre, Al. Solidarnosci 67, Warszawa

Portugal, Emergency telephone number: +351 210 143, CIAY - Centro de InformacOes Antivenenos, Rua Almirante Barroso, 36, Lisbon

Romania, Emergency telephone number: +40 212 106 282, TOXAPEL - Paediatric Poison Centre, Emergency Clinical Hospital for Children Grigore Alexandrescu, Boulevard lançu de Hunedoara 30-32, Bucharest

Slovakia, Emergency telephone number: +421 54 774 166, National Toxicological Information Centre, University Hospital Bratislava, Limbová 5, 833 05 Bratislava

Slovenia, Emergency telephone number: +386 41 635 500, Poison Control Centre Ljubljana, University Medical Centre Ljubljana, Zaloska cesta 7, Ljubljana

Spain, Emergency telephone number: +34 156 20 420, Instituto Nacional de Toxicologia, Jose Echegaray n° 4, Las Rozas, Madrid

Sweden, Emergency telephone number: +46 8 33 1231, Giftinformationscentralen (Swedish Poisons Information Centre), Karolinska Hospital, Stockholm

Switzerland, Emergency telephone number: +41 44 2515151, Swiss Toxicological Information Centre, Freiestrasse 16, CH-8028, Zurich

United Kingdom, Emergency telephone number: +44 892 0111, Regional Medicines and Poisons Information Centre NI, Pharmacy Department, Royal Hospital Suite, Grosvenor Road, Belfast

NOTE: The list of emergency telephone numbers is provided here for reference only. It may not be complete or correct. Please, consult with your local/national competent authorities for the emergency number in your country.

End of the document.