



Safety Data Sheet (SDS)

Revision 1 / Review Date: 4/02/2019

1. Chemical Product and Company Identification

Product Name:	SKI-3
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
SDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	cis - 1,4 Polyisoprene / Polyisoprene cis
Technical Name:	Polyisoprene
Molecular Formula:	[C ₅ H ₈] _n
Molecular Weight via GPC, Mn:	Not available
Product Use:	Synthetic Polymers
OSHA Status:	Non Hazardous
CAS No:	9003-31-0
EC No:	201-143-3
REACH registration number	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 No 201-143-3) is registered in accordance with provisions of Article 6 (3) of Regulation (EC) No 1907/2006. Registration No.: 01-2119480438-30-0000

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

<u>Hazard description:</u>	The substance is nonhazardous, nontoxic. No adverse health effects at room temperature.
<u>Classification:</u>	This product is not hazardous as defined in Regulations 67/548/Ec, 1999/45/EC and resolutions (EC) n° 1272/2008 (CLP).
<u>Safety phrases:</u>	Avoid entry into the environment.
<u>Human Health Hazards:</u>	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.

3. Composition / Information on Ingredients

CAS No.	Chemical name	% (mass)
9003-31-0	Cis-1,4-polyisoprene	> 96

4. First Aid Measures

<u>Inhalation:</u>	Under normal conditions volatile components are not emitted..
<u>Eyes:</u>	Rinse immediately eye with plenty of low pressure water for at least 15 minutes. Remove contact lenses. Get medical attention.
<u>Skin:</u>	Rinse skin with water and soap. If necessary get medical attention.
<u>Ingestion:</u>	Give plenty to drink. Get medical attention.
<u>Most important symptoms and effects, both acute And delayed Symptoms:</u>	Absent.
<u>Indication of any immediate medical attention and Special treatment needed/ Acute exposure:</u>	Absent. If necessary for medical treatment refer to medical professionals.

5. Fire-Fighting Measures

<u>Suitable Extinguishing Media:</u>	Water, Mechanical foam, Carbon dioxide and powder, asbestos cloth, Sand.
<u>Unsuitable extinguishing media:</u>	Not regulated.
<u>Special Fire Fighting Procedures:</u>	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.
<u>Personal Protection:</u>	Apply special protective clothes, shoes, personal eye protection. For respiratory protection use self-contained breathing apparatus with forced air supply
<u>Unusual fire hazards:</u>	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

6. Accidental Release Measures

For non-emergency personnel Measures:

Special precautions are not required. In case of accidental release of the product comply with fire safety measures.

Environmental Precautions Accidental Releases:

No direct environmental hazard. Special precautions are not required.

Waste Disposal:

Collect into containers for reuse or disposal. Do not throw into refuse collection places. Reclaim or dispose of in accordance with local, state, and federal regulations..

7. Handling and Storage:

Precautions to be taken in handling:

Take fire precautions. Avoid contact with open fire and sparks, also heating up above self-ignition temperature. Use earthed equipment to avoid static electricity.
Use suction and exhaust ventilation.

Handling:

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

Storage:

Store in closed package, in covered cool, well ventilated storehouse. 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 1.2m when stockpiling, keep breaks between rows.

Substance, incompatible in joint storage:

Strong oxidizers, combustible and self-inflammable substances.
Concentrated acids, alkali and alkali metals.

Special requirements and handling rules:

None.

8. Exposure Controls / Personal Protection

Occupational Exposure Limit:

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.

Substance	Control parameter	Standard	Data source	Comment
Isoprene	TWA (8-h)	2 ppm [5.58 mg/m ³]	US, AIHA	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.

Engineering Controls and good work practices:

Technical measures in the work practice shall provide constant and efficient disposal of the substances emitted during thermos processing 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 thermos processing local exhaust ventilation may be required.

Periodic environmental control at workplaces shall be carried out in accordance with the current national/regional/local legislation.

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 protections is usually not required. It is recommended to use respiratory equipment as respiratory protection.

Hand Protection:

Gloves made of cotton fabric.

Eye Protection:

Wear safety glasses or chemical goggles. Only in case of crushing of material in the open systems.

Skin and Body Protection:

Use protective clothing under normal operating conditions. Protective clothing made of cotton fabric.

<u>Hygiene measure:</u>	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.
<u>Decontamination Facilities:</u>	Eye bath, washing facilities (sinks / showers).
<u>Summary of RMM relevant to environment:</u>	Periodic control for emission sources shall be carried out in accordance with the current national/regional/ local legislation.

9. Physical and Chemical Properties

<u>Appearance:</u>	Under normal conditions it is solid homogeneous substance from light-grey to black color in the form of a square brick.
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 range:	Not applicable.
Flash point:	275oC
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/cm ³
Partition coefficient: n- octanol/water:	Not applicable.
Explosive properties:	Not explosive.
Oxidising properties:	Not oxidizing.
<u>Other information</u>	
Henry's law constant (HLC):	Not applicable.
Conversion factors:	Not applicable.

10. Stability and Reactivity

<u>Reactivity:</u>	Under normal conditions reactivity is not observed.
<u>Stability:</u>	Stable under normal temperature and pressure and if storage, handling conditions are complied with.
<u>Possibility of hazardous reactions:</u>	Not applicable.
<u>Incompatibility (Materials to Avoid):</u>	Strong oxidizers, Combustible and self-inflammable substance Concentrated acids and alkalis, alkali metal.
<u>Conditions to Avoid/Contributing to instability:</u>	Incompatible substance, high temperatures, open flame, direct Sunlight.
<u>Hazardous Decomposition Products:</u>	Products of combustion.

11. Toxicological Information

<u>General characteristic of the product:</u>	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.
<u>Acute toxicity:</u>	No data are available.
<u>Skin corrosion/irritation:</u>	No data are available.
<u>Serious eye damage/irritation:</u>	No data are available.
<u>Respiratory irritation:</u>	No data are available.
<u>Respiratory or skin sensitization:</u>	No data are available.
<u>Germ cell mutagenicity:</u>	No data are available.
<u>Carcinogenicity:</u>	No data are available.
<u>Reproductive toxicity:</u>	No data are available.
<u>STOT-single & repeated exposure:</u>	No data are available.

12. Ecological Information

General characteristic of the product: 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.

<u>Toxicity</u>	No data are available.
<u>Persistence and degradability</u>	No data are available.

<u>Bio-accumulative potential</u>	No data are available.
<u>Mobility in soil</u>	No data are available.
<u>Results of PBT and vPvB assessment</u>	No data are available.
<u>Other adverse effects</u>	No data are available.

13. Disposal Considerations

Methods of disposal of wastes: Product disposal shall occur only in compliance with current national/regional/local legislation requirements.

14. Transport Information

D.O.T. Shipping Name: Not classified.
Air - ICAO (international Civil Aviation Organization): Not classified.
ADR/RID: Not classified.
Sea - IMDG (International Maritime Dangerous Goods): Not classified.
IATA: Not classified.

Note: Product disposal shall occur only in compliance with current national/regional/local legislation requirements

15. Regulatory Information

All components of this material are on the TSCA Inventory.

All components of this material are on the Canadian DSL.

Export and Import of Dangerous Chemicals (Regulation (EC) No. 689/2008) Information:
 Cis-1,4-polyisoprene 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 № 201-143-3) is registered in accordance with provisions of Article 6 (3) REACH Regulation.

Chemical safety assessment
 CSA:
 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

16. Other Information

Additional Cas No.: 104389-31-3

Note: Additional CAS number is designated for polyisoprene rubbers with longer polymer chain and, in particular, cis-polyisoprene.

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the user's responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.