SunBoss Chemicals Corp.

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Safety Data Sheet

SKI-3

1. IDENTIFICATION OF SUBSTANCE / COMPANY INFORMATION

Chemical Name	CIS – isoprene synthetic rubber
Synonyms	CIS-1,4-polyisoprene
CAS #	104389-31-3
Formula	$[CH_2CH=C(CH_3)CH_2]n$
Chemical Family	Synthetic rubber
Supplier	**SunBoss Chemicals Corp.**
Address	**8-110 West Beaver Creek Road**
	Richmond Hill, ON L4B 1J9
Telephone	**905-707-3433**
Fax	**905-707-7393**
Emergency Information	**After normal hours call Chemtrec at 1-800-424-9300**

2. COMPOSITION / INFORMATION ON INGREDIENTS

Component	**CAS No.**	**Weight %**	**UN No.**
Polymer 2-methylbutadi-1,3-ene	104389-31-3	>99.6	201-143-3
N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine	793-24-8	< 0.35	212-344-0
	Symbol(s)	**Risk Phrase(s)**	
	None	None	

3. HEALTH HAZARDS INFORMATION

EMERGENCY OVERVIEW

COMBUSTIBLE SOLID!
Small quantities may cause irritation to eyes.
Exposure to hot materials may cause thermal burns.
Avoid high temperatures and strong oxidants.
Products of thermal decomposition - toxic.

Potential Health Effects

Inhalation	No hazard at ambient temperature.
Ingestion	No significant danger occurs when ingested.
Skin contact	No hazard at ambient temperature. Exposure to hot materials may cause thermal burns.

Eye Contact	Small quantities may cause mild eye irritation. Signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.

4. EMERGENCY FIRST AID PROCEDURES

Inhalation	No hazard at ambient temperature.
Ingestion	No hazard. When small amounts of rubber crumbs are ingested there is no significant danger or hazardous side effects.
Skin	Remove contaminated clothing, wash skin with water, using soap. Launder clothing before reuse.
Eyes	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Seek medical attention if irritation occurs.
Note to Physician	When heated this product could decompose to form carbon oxides – isoprene emissions are possible. Carbon oxides reduce oxygen content in the air and could have a toxic effect on cells, causing respiratory distress. Isoprene is toxic in high concentrations and can cause irritation of the mucous membranes in low concentrations and distress to the central nervous system.

5. FIRE AND EXPLOSION HAZARDS

Flammability	Not applicable
Flash Point	Not applicable
Flash Point Method	Not applicable
DOT Category	Not regulated
Extinguishing Media	Dry chemical foam, fine sprayed water or mist, carbon dioxide, asbestos or cloth - sand or earth can be used in small fires.
Auto Ignition Temperature	575 ºC
Flammable Limits	Not applicable
Special Fire Fighting Procedures	Fight fire from a safe distance and from a protected location. Use water spray, foam, asbestos or sand to cool fire exposed surfaces. Do not allow run-off to enter waterways.
Special Protective Equipment	Fire fighters should wear full protective clothing, including self-contained breathing equipment.
Unusual Fire and Explosion Hazards	When heated this product could decompose to form carbon oxides – isoprene emissions are possible. Carbon oxides reduce oxygen content in the air and could have a toxic effect on cells, causing respiratory distress. Isoprene is toxic in high concentrations and can cause irritation of the mucous membranes in low concentrations and distress to the central nervous system.

6. ACCIDENTAL RELEASE MEASURES

Procedures	Wear protective equipment specified.
Hazardous Material	Not considered a RCRA waste
Clean up Methods	Isolate area and remove ignition sources and work with non-sparking tools. Scoop up and remove.

7. HANDLING AND STORAGE

Handling	Good hygienic practices should be observed. Work clothes should be laundered and disposable clothing should be discarded.. Avoid contact with eyes, skin and clothing. Wash hands before eating, drinking, and chewing gum, using tobacco or using the toilet.
Storage	Store closed containers in a cool, dry, well-ventilated area. Store away from direct sunlight, heat and moisture. The inside temperature should not exceed 30°C. Storage together with oxidizers, acids and caustics is prohibited.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls	General; local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Eliminate ignition sources. Grounding of equipment is mandatory.

Exposure Limits	ACGIH TLV	OSHA PEL
	Not available	3.5 mg/m^3 (TWA)



Respiratory	Not required under normal operating conditions. Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure. Firefighting; use a Positive Pressure Demand Full Face Self Contained Breathing Apparatus. In emergency situations and during repair use, industrial filtering respirators and breathing masks should be worn.
Eyes	Wear safety glasses or goggles to protect against exposure.
Skin	Normal work coveralls. Launder contaminated clothing before reuse.
Gloves	Use gloves as a standard industrial handling procedure. All cleanable impervious glove types are acceptable.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Grey solid bale

Odour	Slight
Specific Gravity	Not applicable
Density at 20 ºC	0,91 g/cm³
Bulk Density	Not applicable
Solubility in water	Insoluble in water
pH	Not applicable
Other Solubility	Soluble in hexane, tolulene, benzene, chloroform and tetrachloride
Ignition temperature	300 ºC
Auto ignition temperature	575 ºC
Mooney Viscosity MB1+4 (100ºC)	65-85 ºC

10. STABILITY AND REACTIVITY

Chemical Stability	Stable when stored at room temperature in closed, original container. Stable under normal conditions of handling, use and transportation. Stable if protected from heat and exposure to air. Protect from moisture.
Conditions to avoid	High temperatures
Incompatibility	Avoid strong oxidants
Hazardous Polymerization	Will not occur
Hazardous Decomposition Products	Carbon oxides, butadiene, isoprene
Additional Guidelines	None

11. TOXICOLOGICAL INFORMATION

Acute oral DL_0 (mg/kg)	1000 mg/kg (Rats)
Acute Dermal LD_{50} (mg/kg)	Not determined
Acute Inhalation LC_{50} (mg/l)	Not determined
Principle routes of Exposure	Eyes
Ingestion	No significant danger reported when ingested.
Skin contact	No hazard at ambient temperature.
Inhalation	No hazard at ambient temperature.
Eye Contact	Small quantities can cause mild eye irritation. Signs/symptoms can include redness, swelling, pain, tearing, and hazy vision.
Aggravated Conditions	None

Carcinogenicity	Not listed as a carcinogen
Primary Irritation Effect	Not determined
Genotoxicity	Not determined
Reproductive/Developmental Toxicity	Not determined

12. ECOLOGICAL INFORMATION

Acute Fish Toxicity	Not determined
Acute Crustacean Toxicity	Not determined
Octonal/Water Coefficient	Not determined
Chemical Fate Information	Not determined
Other Information	Product does not pose a hazard to the environment

13. DISPOSAL CONSIDERATIONS

Waste Disposal	Waste should be collected and buried in a licensed landfill or burned in an approved incinerator according to federal, state, and local regulations.
Contaminated Packaging	If empty container retains product residues, all label precautions must be observed. Transport with all closures in place. Return for reuse or dispose according to national or local regulations. Dispose of container according to national or local regulations.

14. TRANSPORT INFORMATION

DOT	Not regulated
IATA	Not regulated
IMDG	Not regulated
TDG (Canada)	Not regulated

15. REGULATORY INFORMATION

THIS PRODUCT IS NOT DEFINED AS A DANGEROUS SUBSTANCE OR PREPARATION ACCORDING TO THE COUNCIL DIRECTIVE 67/548/EEC AND ITS VARIOUS AMENDMENTS AND ADAPTATIONS.

Risk Phrase(s)	None
Safety Phrase(s)	S16 – Keep away from sources of ignition – No smoking. S41 – In case of fire and/or explosion do not breathe fumes. S43 – In case of fire use water or powdered mixtures S47 – Keep at temperatures not exceeding 40°C
FDA Status 21 CFR	Not regulated for use in food contact applications under 21 CRF
TSCA	Not determined

Canadian DSL	Not determined
EINECS/ELINCS	Not determined

US Regulations

SARA Section 302	None
SARA 311/312 Hazard Categories	None
SARA 313 Chemical	None
RCRA Status	Not a RCRA waste

Canadian Regulations

WHMIS Hazard Class	Not available
NPRI	Not available

16. HAZARD RATING SYSTEM

NFPA Rating (Scale 0-4)

0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard

HEALTH	0
FIRE	0
REACTIVITY	1

HMIS Classification (Scale 0-4)

0 - Minimal Hazard
1 - Slight Hazard
2 - Moderate Hazard
3 - Serious Hazard
4 - Severe Hazard

HEALTH	0
FIRE	0
REACTIVITY	1

17. OTHER INFORMATION

Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation. SunBoss Chemicals Corp. extends no warranty and assumes no responsibility for the accuracy or sufficiency of the content and expressly disclaims all liability for reliance thereon. This material safety data sheet provides guidelines for the safe handling of this product; it does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. It is the responsibility of the user to comply with all Federal, State and local laws and regulations. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.

Abbreviations and Acronyms
ACGIH: American Conference of Governmental Industrial Hygienists Inc.
CAS: Chemical Abstracts Service (Division of American Chemical Society)
DOT: Department of Transportation (USA)
EINECS: European Inventory of Existing Commercial Chemical Substances
HMIS: Hazardous Materials Identification System (USA)
IARC: Internal Agency for Research on Cancer
IATA: International Air Transport Association
IMDG: International Marine Code for Dangerous Goods
DL_0: Lethal dose to 100% of test population
LD_{50}: Lethal Dose Medium

LC_{50}: Lethal Concentration Medium
EC_{50}: Effective Concentration Medium
NIOSH: National Institute for Occupational Safety and Health
NFPA: National Fire Protection Association (USA)
NPRI: National Pollutant Release Inventory (Canada)
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration (USA)
TDG: Transportation of Dangerous Goods (Canada)
TLV: Threshold Limit Value
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Information Systems (Canada)

18. REVISION DATE

Revision number: 2
Date of Issue: October 1, 2014
Changes: Number and format of headings changed; Updates to Sections 1: Identification of Substance - EC information added; 2: Health Hazards Information; 8: Specific Personal Protection Equipment - pictograms added; 14: Transport information - updated; 15: Regulatory information - EC information added; 16: Hazard Rating System - table added; 17: Abbreviations and Acronyms added