

1. Material and Company Information.

1.1 Trade name:	Synthetic rubber, cis – butadiene PBR neodymium
Chemical name: (IUPAC)	Cis-Poly (butadiene)
1.2 Producer	Nizhnekamskneftekhim Inc, 423574, Nizhnekamsk, Tatarstan, Russia
1.3 Contact:	Nizh USA, 92 Front Street, Hempstead, NY 11550 USA 516-542-0500

2. Product composition

Chemical property of the product:	Synthetic rubber, cis – butadiene PBR
Molecular formula	(- C ₄ H ₆ -) n
Empiric formula	(- CH ₂ CH=CHCH ₂ -) n
Physical state	Solid matter
Color	Light yellow
Odor	None
Identification Number	
CAS - №	40022-03-5

3. Harmful effects

Health effect	Low hazardous matter. Poisoning by getting inside the human organism is unlikely.
Eye contact	For open systems where contact is most likely the particles may injure the eye surface and cause mechanical irritation.
Skin contact	Not dangerous under normal industrial usage. Contact with hot product could result in thermal burns.
Hygienic requirements	Hazard class –4. Due to its physical and chemical properties and low toxicity there is no need for hygienic standards.

4. First aid measures

Inhalation	Under normal industrial usage the product is not dangerous. In case of fire victim suffered suffocation from combustion products should be taken to fresh air. In case of respiratory arrest the artificial respiration “ from mouth to mouth” should be performed. Call a physician if necessary.
Skin contact	If hot product got onto the skin it should be immediately washed with plenty of cold water
Eye contact	This is the solid product of inert nature. If it gets into the eye (during rubber crushing) it should be removed by some clean object. Consult a physician if necessary.
Ingestion	If rubber crumbs are ingested, wash the mouth with water, drink a glass of water.

5. Fire and explosion safety measures

Fire and explosion hazard	Non - explosive product. It burns if there is a fire.
Fire extinguishing means	Water, foam, dry powder, CO ₂
Prohibited fire extinguishing means	Prohibited fire extinguishing means have not been established
Harmful decomposition products during product combustion	Carbon oxides

6. Measures for removal of accidentally spilled and scattered product

The product is solid and has no flow properties.

Collect the product and put it in appropriate containers for disposal or reuse.

7. Storage and handling procedures

7.1 No special safety measures or means are envisaged for handling the finished product. Production areas should be equipped with induced and forced draft ventilation.

7.2 Storage

The temperature inside building should not exceed 30 °C. Storage with oxidizers, acids and alkalis shall not be allowed.

8. Regulations and measures for personnel

8.1 When working with product: induced and draft forced draft ventilation inside the buildings should be provided as well as fire – extinguishing means.

8.2 Personal safety measures and means.

Hand protection	Not required
Eye protection	Gloves, thermal-proof gloves if the product is hot
Protection of respiratory organs	Protection means shall not be required under normal operating conditions. Filter gas mask, type A, BKF in an emergency case.
Protective clothing	Special clothing type 3 (GOST 12.4.103) in accordance with typical branch standards.

9. Physical and chemical properties

9.1 Product property

Aggregative state	Solid
Color	Light yellow
Odor	None

9.2 Fire hazard and other characteristics

Molecular weight	800000-1000000
Density at 20 °C	0,9-1,02 g/sm ²
Chemical reactivity	Oxidation, hydrogenation, halogenation, epoxidation,
Solubility	Not soluble in water. Dissolved in hexane, toluene, benzene, chloroform and carbon tetrachloride.

10. Stability and chemical activity

Stability Extraordinary stable
Thermal decomposition products Carbon oxides

11. Toxicity

Toxicity DL₅₀ > 20000 mg/kg, intraventricular, rats
Acute toxicity CL₅₀ – non-attainable
Doses (concentration) of minimum toxic action 2000 mg/kg, intraventricular, 20 days, rats – retardation, loss of body weight, relative liver mass increase, reduction of hemoglobin by 30 % in red blood cells, 40 % increase of alkaline phosphatase.
Cumulative action Low level
Clinical presentation of acute toxic exposure No description of acute toxic exposure cases
Dermal resorption effect None
Sensibilizing effect Data not available
Embriotropic action Data not available
Gonadotropic action Data not available
Teratogenic action Data not available
Mutagenic action Data not available

12. Environmental impact

Biological dissimilation Data not available
Acute toxicity for fish CL₅₀ > 100 мг/л *Lepomis gibbosus*, 96 hours
CL₅₀ > 100 мг/л *Salmo irideus*, 96 hours
Acute toxicity for daphnia (mg/l) CL₅₀ > 100 мг/л, 48 h
Toxic action on algae (in the nature) CL₅₀ > 100 мг/л *Scenedesmus quadricauda*, 48 ч
In the environment Transformation during long-term atmospheric exposure (precipitation, solar radiation, cold high temperatures)
Products of transformation Data not available

13. Utilization and Disposal of wastes

Incineration in special areas in conformance with local regulations (laws).

14. Transportation rules

All kinds of transport, covered transport facilities. Belongs to hazard class 9 as non-hazardous product.

15. International and national legislations

National legislation: There are no special limitations in the Russian Federation in regard to usage or restrictions on fire hazard or hazard aquatic environment or health hazard for personnel which shall be applied to synthetic cis-butadiene rubber.

Special markings:
S-designation:
S 15

Keep away from heat sources