

# BUTADIENE RUBBER (BR), Solution type, Grade: BR-1203 Ti

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Revision date: 16 Jun 2020 Version: 3.0

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : BUTADIENE RUBBER (BR), Solution type, Grade: BR-1203 Ti  
Type of product : Polymers  
Synonyms : Polybutadiene (cis); / 1,3-Butadiene, homopolymer  
Product group : Raw material  
Other means of identification : REACH Registration # for 1,3-butadiene (CAS #106-99-0; EC #203-450-8): 01-2119471988-16-0034, 01-2119471988-16-0233.

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use  
Industrial/Professional use spec : Industrial  
For professional use only  
Use of the substance/mixture : Manufacture of tyres, technical rubber products

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

##### Manufacturer

Voronezhskhsynthezkauchuk JSC

Leninsky prospect 2

394014 Voronezh - Russian Federation

T +7 473 220 65 26; +7 473 249 09 00; +7 473 220 67 30 (round the clock) - F +7 473 220 68 69

[VSK-office@vsk.sibur.ru](mailto:VSK-office@vsk.sibur.ru)

#### 1.4. Emergency telephone number

Emergency number : +7 473 249 09 00, +7 473 220 67 30 (round the clock)

Country	Official advisory body	Address	Emergency number	Comment
Belgium	Centre Anti-Poisons/Antigifocentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)
Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	
Denmark	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23 2400 København NV	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	16662 +372 626 93 90	
Finland	Myrkytystietokeskus	Stenbäckinkatu 9 PO BOX 100 29 Helsinki	+358 9 471 977 +358 800 147 111	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	

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Greece	Department of Forensic Medicine & Toxicology Aristotle University of Thessaloniki, Medical Faculty	54006 Thessaloniki		
Latvia	Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs	Hipokrāta 2 1038 Rīga	+371 67 04 24 73	
Lithuania	Apsinuodijimų informacijos biuras	Birutės g. 56 8110 Vilnius	+370 5 236 20 52 +370 687 53378	
Luxembourg	Centre Anti-Poisons/Antigifocentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+352 8002 5500	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
Norway	Giftinformasjonen Helsedirektoratet	P.O. Box 7000 St. Olavs Plass 130 Oslo	+47 22 591300	
Slovakia	Národné toxikologické informačné centrum Univerzitná nemocnica Bratislava, pracovisko Kramáre, Klinika pracovného lekárstva a toxikológie	Limbová 5 833 05 Bratislava	+421 2 54 77 41 66	
Slovenia	Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL	Zaloška cesta 7 1525 Ljubljana	+386 41 650 500	
Sweden	Giftinformationscentralen	Box 60 500 171 76 Stockholm	112 – begär Giftinformation +46 10 456 6700 (Från utlandet)	
Switzerland	Tox Info Suisse	Freiestrasse 16 8032 Zürich	145	(from abroad: +41 44 251 51 51) non urgent inquiry: +41 44 251 66 66
Turkey	Ulusal Zehir Merkezi (UZEM) Refik Saydam Hıfzıssıhha Merkezi Başkanlığı	Cemal Gürsel Cd. No: 18 Sıhhiye Çankaya 06590 Ankara	114	Information is provided to public and medical personnel on poisoning incidents via 114.

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

EUH-statements : EUH210 - Safety data sheet available on request.

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### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cis-polybutadiene	(CAS-No.) 9003-17-2	≥ 98.5	Not classified
6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol	(CAS-No.) 119-47-1 (EC-No.) 204-327-1	< 0.3	Repr. 2, H361

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice. Never give anything by mouth to an unconscious person. Risk of thermal burns on contact with molten product. Thermal decomposition can lead to the release of irritating gases and vapours.
First-aid measures after inhalation	: Inhalation unlikely. Not expected to present a significant inhalation hazard under anticipated conditions of normal use. If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing.
First-aid measures after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use. Contact with molten substance could cause severe burns to skin and eyes. After contact with molten product, cool skin area rapidly with cold water. Removal of solidified molten material from skin requires medical assistance.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Ingestion unlikely. Not expected to present a significant ingestion hazard under anticipated conditions of normal use. Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: None under normal use. Thermal decomposition can lead to the release of irritating gases and vapours.
Symptoms/effects after skin contact	: None under normal conditions. Risk of thermal burns on contact with molten product.
Symptoms/effects after eye contact	: None under normal conditions. Risk of thermal burns on contact with molten product.
Symptoms/effects after ingestion	: Gastrointestinal complaints.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. The melted product adheres to the skin and causes burns. Treat as thermal burns.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Sand. Foam. Dry powder. Water spray.
Unsuitable extinguishing media	: Do not use a heavy water stream.

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### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Ventilate area.

### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product. On land, sweep or shovel into suitable containers. Minimise generation of dust. Store away from other materials.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Proper grounding procedures to avoid static electricity should be followed. Avoid all unnecessary exposure. Provide good ventilation in process area to prevent formation of vapour.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Does not require any specific or particular technical measures.

Storage conditions : Store away from direct sunlight or other heat sources. Keep away from heat, sparks and flame. Store in a well-ventilated place.

Incompatible products : Strong bases. Strong acids. Strong oxidizing agents. Organic solvents.

Incompatible materials : Sources of ignition. Direct sunlight.

Storage temperature :  $\leq 30$  °C

Packaging materials : Polyethylene film, universal containers, plastic and metal containers.

### 7.3. Specific end use(s)

No additional information available

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### Personal protective equipment:

Avoid all unnecessary exposure.

##### Hand protection:

Wear suitable gloves tested to EN374. In the event of contact with molten product : Insulating protective gloves, EN 407

##### Eye protection:

Use eye protection according to EN 166, designed to protect against powders and dusts.

##### Skin and body protection:

Wear suitable protective clothing. Use insulated gloves, impervious apron, long sleeves and other protective clothing when handling this material hot

##### Respiratory protection:

No respiratory protection needed under normal use conditions

##### Environmental exposure controls:

Avoid release to the environment.

##### Other information:

Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Elastic solid.
Colour	: Yellow.
Odour	: Slight.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: 332 °C
Decomposition temperature	: > 300 °C
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.9 – 0.97 g/cm <sup>3</sup>
Solubility	: insoluble in water. Soluble in aromatic hydrocarbons. Soluble in aliphatic hydrocarbons.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available

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Oxidising properties : No data available  
Explosive limits : Not applicable

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. high temperatures, naked flames. heat.

### 10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Organic solvents.

### 10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### Cis-polybutadiene (9003-17-2)

LD50 oral rat	> 20000 mg/kg bw/day FBEPH. BT#001360, 1998
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#### 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (119-47-1)

LD50 dermal rabbit	> 10000 mg/kg bodyweight Animal: rabbit, Animal sex: male
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Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

#### 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (119-47-1)

NOAEL (chronic, oral, animal/male, 2 years)	12.7 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Effect type: toxicity (migrated information)
NOAEL (chronic, oral, animal/female, 2 years)	15.1 mg/kg bodyweight Animal: rat, Animal sex: female, Remarks on results: other:Effect type: toxicity (migrated information)

Reproductive toxicity : Not classified

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6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (119-47-1)	
LOAEL (animal/male, F0/P)	50 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
LOAEL (animal/female, F0/P)	200 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/male, F0/P)	12.5 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	50 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### Cis-polybutadiene (9003-17-2)

LC50 fish 1	> 100 mg/l <i>Salmo iridus</i> (FBEPH. BT#001360, 1998)
EC50 other aquatic organisms 1	> 100 mg/l <i>Scenedesmus quadricauda</i> (FBEPH. BT#001360, 1998)

### 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (119-47-1)

EC50 Daphnia 1	> 4.8 mg/l Test organisms (species): <i>Daphnia magna</i>
EC50 72h algae (1)	> 5 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i> )
LOEC (chronic)	0.89 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC (chronic)	0.34 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'

### 12.2. Persistence and degradability

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Persistence and degradability	Not established.
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#### Cis-polybutadiene (9003-17-2)

Persistence and degradability	Not established.
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### 12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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#### Cis-polybutadiene (9003-17-2)

Bioaccumulative potential	Not established.
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### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Other adverse effects

Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated



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### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Indication of changes:

Version	Date of change	Section	Comments
1.0	16/03/2010	All	First edition created according to recommendations of Regulations (EC) #1907/2006
2.0	07/02/2011	1.1, 2	Sections were updated.
2.1	26/12/2011	1; 3, 4, 9-12; 15; 16	Product name was changed. DISCLAIMER was added on the first page. Sections 1; 3, 4, 9-12; 15; 16 were updated.
2.2	01/11/2013	All	Antioxidant was added (CAS#110553-27-0) in the composition. All sections were updated. Formula was corrected. Sections 2; 4-13; 15; 16 were updated.
2.3	18/07/2016	1.3; 2; 3	Supplier's contact details were updated. Section 2: information regarding classification and labelling according to CLP is given. Information on mixture composition was updated (antioxidant CAS #110553-27-0/EC#402-860-6 was removed)
2.4	13/02/2016	3; 9	Information on mixture composition was updated (antioxidant CAS#128-37-0 was removed). Section 9: Glass transition temperature parameter was corrected.
2.5	29/01/2019	-	SDS was reviewed. No changes were made.
2.6	25/02/2020	1.1, 1.3, 2.2, 3, 9	Registration number for 1.3-butadiene was added. Supplier's contact details and label elements were updated. Antioxidant's concentration range was updated, note was updated accordingly. Physical and chemical properties were updated.
3.0	16/06/2020	All	All sections were updated, the document format was changed. Disclaimer on the first page was excluded.

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

### Full text of H- and EUH-statements:

Repr. 2	Reproductive toxicity, Category 2
H361	Suspected of damaging fertility or the unborn child.
EUH210	Safety data sheet available on request.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.