SAFETY DATA SHEET

Based on Regulation (EC) 1907/2006 of the European Parliament and of the Council (REACH), ISO 11014:2009, WHMIS-Canada, EU /830/2015

Trade mark: ***Brominated Butyl Rubber***

Date of elaboration: 2010-10
Updated: 2018-05
Revision: 2.3 instead of v. 2.2 from 2016-01

1 Identification of substance/mixture Identification of company/enterprise

Identification of substance/mixture:	***Brominated Butyl Rubber***
REACH registration number:	Isobutylene (monomer): **01-2119456616-32-XXXX** Isoprene (monomer): **01-2119457891-29-XXXX** Bromine : **01-2119461714-37-XXXX**
Synonyms	Co-polymer of isobutylene and isoprene, brominated
Application:	Tire and technical rubber industry

Producer/importer/distributor:

Supplier/producer	PJSC Nizhnekamskneftekhim
Address	RF, Tatarstan, 423574, Nizhnekamsk PJSC Nizhnekamskneftekhim
Telephone/fax	+7(8555)377445
MSDS prepared by:	e-mail: …nknh@nknh.ru… ShuvalovaOV@nknh.ru, BayazitovaLH@nknh.ru

Special representative:

Designation	Oy Nizhex Scandinavia Ltd
Address	Wavulinintie 10 HELSINKI 00210 Finland Jari Taipale
Telephone/fax	+35 896824700
e-mail:	jari.taipale@nizhex.fi

Emergency telephone number:	
- product recipient country	To be specified in each country by the consumer. See Section 16 of this SDS
- country of origin	+7 (8555) 37-72-07, (8555) 37-78-30, +7 (8555) 37-72-65, (8555) 37-74-45 8.00 am – 5.00 pm in workdays

2 Hazards identification

2.1 Classification

This product is **not** classified as hazardous according to Directive (EC) №1272/2008 (CLP)

Information pertaining to special dangers for human and environment:

Adverse physicochemical effects: none

Adverse human health effects and symptoms:

EYE CONTACT:	For open systems where the contact is most probable the particulates may injure eye surfaces and cause mechanical irritation.
SKIN CONTACT:	In case of exposure to hot polymer: redness, pain , burn.
INHALATION	Rubber does not contain highly volatile fractions and there are no pollutant emissions during storage.
INGESTION:	Entry inside is unlikely. No hazard when swallowed.
Adverse environmental effects:	Not environmentally hazardous.
2.2 Label elements	not applicable
2.3 Other hazards:	Undergoes transformation in the environment at long-term weather impact (atmospheric precipitation, solar irradiation, coldness, high temperatures)

3 Composition / Information on components

3.1 Substance information:

Chemical name/synonyms	EC-No	Reach No.	CAS-No	Amount %	Classification according Regulation (EC) No 1272/2008 [CLP]	
					Class/ Category of danger	Identification of danger
Polymer 2-methylprop-1-ene with 2-methylbutadi-1,3-ene brominated	none	Not subject to registration	68441-14-5	>97.65	not classified	
Stabilizers						
Irganox 1076 Octadecyl 3-(3,5-di-tert-butyl-4- hydroxyphenyl) propionate)	218-216-0	Not subject to registration	2082-79-3	>0.05	not classified	
Other impurities						
Calcium stearate	216-472-8	Not subject to registration	1592-23-0	<2.3	not classified	

4 First aid measures

4.1 Description of first aid measures

GENERAL:	Low hazard material. Intoxication through entry into human body has not been defined and is unlikely.
INHALATION:	No hazard at ambient temperature.
SKIN CONTACT:	No hazard at ambient temperature. Wash with water and soap. In case of contact with hot product , immediately wash with large amount of water. Apply a clean gauze or cotton fabric bandage.
EYE CONTACT:	Wash with plenty of water to remove the product from eyes.
INGESTION:	No hazard. When small amount of rubber crumb is swallowed, no first aid measures are required.
ADVICE TO PHYSICIAN:	none

4.2 Most important symptoms and effects, both acute and delayed

EYE CONTACT:	For open systems where the contact is most probable the particulates may injure eye surfaces and cause mechanical irritation.
SKIN CONTACT:	In case of exposure to hot polymer: redness, pain , burn.
INHALATION	Rubber does not contain highly volatile fractions and there are no pollutant emissions during storage.
INGESTION:	Entry inside is unlikely. No hazard when swallowed.

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

Consult a doctor.

5 Fire fighting measures

5.1 Extinguishing media

Recommended fire-extinguishing means	Dry chemical foam, fine sprayed water or mist, carbon dioxide, sand or earth could be used only in case of small fire. Fire-extinguishers of any type, water, water vapor, fire-extinguishing foams, inert gases, sand, asbestos cloth.
Prohibited fire-extinguishing means	Prohibited fire extinguishing means are not established.

5.2 Special exposure hazards arising from the substance or mixture	Carbon oxides and dioxides. Heated product decomposes and emits carbon oxide (CAS No. 124-38-9), hydrogen bromide emission is possible as well (CAS No. 10035-10-6). Carbon oxides reduce oxygen (O_2) content in the air; they may have a toxic effect on the cells causing the cell respiration disturbance. Hydrogen bromide has a percutaneous action, affects the central nervous system (Xi; R:35-37).
5.3 Advice for fire fighters	Use a fire-resistant suit and a self-contained breathing apparatus. Remove personnel not participating in fire-fighting from the site of the fire.

6 Measures of prevention and management of emergencies

6.1 Personal protection	Use a fire-resistant suit and a self-contained breathing apparatus
6.2 Environmental protection measures	Contamination of water bodies and soil should be avoided.
6.3 Methods of neutralization, removal and cleaning	Solid product in the form of bales. Collect the product and put it in the appropriate containers for disposal or reuse.
6.4 Supplementary recommendation	None

7 Handling and storage

7.1 Handling

Advices on safe handling:	Arrangement of supply-and-exhaust ventilation system and local ventilation. Use of pressure tight equipment for production. Equipment grounding is mandatory. Use of personal protection equipment.
Incompatible substances	Storage together with oxidizers, acids and caustics is prohibited.
Industrial health:	Use of personal protective equipment. After working with the product should be washed.
Measures to prevent aerosol and dust generation:	Aerosol and dust are not generated when handling.
Measures required to protect the environment:	Minimization of rubber losses during transportation and storage , prevention of discharge into water, sewerage system.
Precautions against fire and explosion:	Open flame sources are not allowed.
7.2 Conditions for safe storage	The product shall be stored at the ambient temperature in the indoor area away from open fire sources, direct sunlight and atmospheric precipitations, away from heat sources. Rubber shall be stored packed in box pallets in stacks not higher than three pallets each.
Packaging materials:	- EVA film (shrinkable); - Polyethylene film - General-purpose plastic containers; - Wooden box pallet; The inside temperature should not exceed 30°C. Storage period – not more than 1 year.
7.3 Specific end uses:	**no**

8 Exposure control and personal protection

8.1 Exposure limit values: Maximum permissible concentration of harmful substance in the working area /relatively safe level of hazardous substances in the working area	Due to physical and chemical properties and low toxicity there are no hygienic regulations for the air exposure limits.
8.2 Occupational exposure limits:	Ensuring that the content of harmful substances is within permissible concentration limits by using supply-and-exhaust ventilation system in the most contaminant air locations.
Personal protection	Use protective clothing made of cotton fabric.

Respiratory protection	Not required under normal operating conditions. In case of emergency – use filter gas-mask, breating masks.
Hand protection	Gloves made of cotton fabric.
Eye protection:	Only in case of crushing of material in the open systems.
Skin protection	Protective clothing made of cotton fabric.
Control of environmental impact	Concentration of pollutants should be measured in the process of thermal treatment.
In everyday life:	Not used in everyday life.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Solid product bale of light yellow color.
Odor	No odor or slight odor
Odor threshold	Not established
pH	Not applicable
Boiling temperature	Not applicable
Glass transition temperature	Minus 69°C
Flash point	267 deg. C (open crucible)
Ignition temperature	301 °C
Self-ignition temperature	402 °C
Vapor pressure	Not applicable
Density	0.9 g/cm3 at 20 °C

9.2 Other information none

10 Stability and reactivity

Contains stabilizer

10.1 Activity	Oxidized
10.2 Stability	Extremely stable under normal conditions
10.3 Possibility of dangerous reactions	Upon contact with an open flame is lit smoky flame
10.4 Conditions resulting in dangerous reactions	Heating above the melting temperature (130°C)
10.5 Materials causing dangerous reactions	Strong oxidizers
10.6 Dangerous decomposition products	Carbon oxides, hydrogen bromide

11 Toxicological properties

11.1. Information on toxicological effects

Acute oral toxicity	Non toxic
Acute dermal toxicity	Non toxic
Acute inhalative toxicity	Non toxic
Skin irritation	Causes no irritation
Eye irritation	Causes no irritation
Irritation to respiratory tract	Causes no irritation
Sensibilization	None
Repeated dose toxicity	None
Mutagenicity	None
Carcinogenicity	Not established

Toxicity for reproductive function and development	None

12 Environmental impact

12.1 Ecotoxicity:	Rubber bales do not pose a hazard for environment
12.2 Persistence and degradability:	Transforms in the environment at long weather impact (atmospheric precipitation, solar radiation, cold, high temperatures).
12.3 Bioaccumulation:	Non cumulative
12.4 Mobility:	Solid product
12.5 PBT/vPvB:	Does not meet criteria.
12.6 Other adverse effects:	Not established

13 Utilization and/or disposal of wastes (remains)

13.1 Methods of disposal of wastes (remains)
Solid wastes generated in the course of rubber processing are not toxic, they do not require neutralization and are subject to reprocessing. Non-treatable wastes are subject to incineration at the specialized landfill.

Code of wastes
07 02 99 wastes from the MFSU of synthetic rubber (not otherwise specified)

S61 – avoid entry into the environment

14 Safety requirements during transportation

ADR/RID	Not classified
IMDG	Not classified
IATA	Not classified

IMO	Not classified
Class	Not classified
Group of packing	--
Classification code	--
Hazard identification number	--
UN number	Not classified
Precise name for transportation	Bromobutyl rubber

15 Regulatory information

National legislative documents:
Regulation (EC) 1907/2006 of the European Parliament and the Council of 18.12.2006 concerning registration, evaluation and authorization of chemicals (REACH), establishing the European Chemical Agency and adding the Regulation 1999/45/EC and cancelling the Resolution (EEC) 793/93 and the Resolution of Commission (EC) 1488/94 as well as the Directive of the Council 76/769/EEC and the Directives of Commission 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

16 Supplementary information

Information source: ESIS – European Chemical Substances Information System (European Chemicals Bureau)
Hazardous Substance Data Bank (HSDB) – U.S. National Library of Medicine, 2001-1

National emergency telephone numbers:

Country	Phone number
Austria	+43 1 406 43 43 Poison Control Centre
Belgium	070 245 245 Centre antipoisons
Bulgaria	+35 929 154 233 Национален токсикологичен информационен център
Croatia	(+385 1) 23-48-342 Poison Control centre
Cyprus	+35 7 22405611 Department of Labour Inspection
Czech Republic	+420 224 919 293, +420 224 915 402 Toxikologické informační středisko
Denmark	82121212 (round-the-clock) AKUTHJAELP VED FORGIFTNING

Estonia	16662 (круглосуточно), (+372) 626 93 90 Poisoning Information Centre
Finland	09 471977, 094711 (round-the-clock) Poison Information Centre
France	+33 0145425959 (round-the-clock) ORFILA (INRS)
Germany	+ 49 231 9071 2971 BAuA Information Centre
Greece	No information
Hungary	(1-800)201-199 (round-the-clock) Az Egészségügyi Toxikológiai Tájékoztató
Iceland	+354 543 2222 Eitrunarmiðstöð
Ireland	01 8092566 , 01 8379964 National Poisons Information Centre
Italy	+39 06 59 94 37 33 Telephone (for technical and scientific issues)
Latvia	+371 67042473 National emergency telephone
Liechtenstein	No information
Lithuania	+370 52 20 5236, +370687 53378 Neatidėliotina informacija apsinuodijus
Luxembourg	070 245 245 Centre antipoisons
Malta	21243314 – Florianna, 22563000 – Rabat, 22695701/2 – Mosta.
Netherlands	030-2748888 Just for the information of the medical staff in cases of acute intoxication
Norway	22 59 13 00 (round-the-clock) Giftinformasjonen
Poland	No information
Portugal	808 250 143
Romania	No information
Slovakia	No information
Slovenia	No information
Spain	+ 34 91 562 04 20
Sweden	112 – ask poisions
United Kingdom	No information

Legend of abbreviations

№ CAS – registry number of the substance in Chemical Abstracts Service
№ EC – EINECS and ELINCS Number
CLP – Classification, Labelling and Packaging
PBT – Persistent, Bioaccumulative and Toxic substance
vPvB – very Persistent, very Bioaccumulative substance
DNEL – Derived No Effect Level
DMEL – Derived Minimum Effect Level
PNEC – Predicted No Effect Concentration
LD-50 – Lethal Dose to 50% of a test population (Median Lethal Dose)
LC-50 – Lethal Concentration to 50 % of a test population
NOAEC – No observed Adverse Effect Levels

EC-50 – half maximal Effective Concentration
ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road
RID – Regulations concerning the International Carriage of Dangerous Goods by Rail
ADN – European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG – International Maritime Dangerous Goods
IATA – International Air Transport Association
IMO – International Maritime Organization
SU – Sector of Use
PROC – Process Category

Information in this Safety Data Sheet is based on the current state of knowledge and legislation in force and refers solely to the description of rules for safe work with the product. This product should not be used for purposes other than those specified in section 1. The consumer is fully responsible for fulfilling of all the requirements of local rules and laws. The above information is not the guarantee of the product quality.