PolyButadiene rubber (PBR)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

TRADE NAME	Synthetic rubber , PBR-1220
SYNONYM	cis-polybutadiene, 1,4-butadiene homopolymer, poly(butadiene), butadiene rubber
ARPC Product Code	4401
CHEMICAL NAME	cis-polybutadiene
FORMULA	– (CH2-CH=CH-CH2) –

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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS
Description: Polybutadiene rubber
CAS 40022-03-5
Dangerous components: Void
Additional information: Can contain additives.

SECTION 3: HAZARDS IDENTIFICATION

INHALATION	Irritating vapours may be formed when product is processed at high Temperatures.
SKIN CONTACT	Substance may cause slight skin irritation.
EYE CONTACT	No hazards expected in normal industrial use at room temperature.
INGESTION	Ingestion is not considered a potential route of exposure.

SECTION 4: FIRST - AID MEASURES

INHALATION	Although this product is not known to cause respiratory problems, if breathing Is difficult, remove to fresh air and provide oxygen.
SKIN CONTACT	Wash skin with soap and water.
EYE CONTACT	Hold eyelids apart and flush eyes with plenty of water for at least 15 Minutes.
INGESTION	Ingestion is not considered a potential route of exposure.

NOTE TO PHYSICIAN :

NO SPECIFIC ANTIDOTE.
SUPPORTIVE CARE. TREATMENT BASED ON JUDGEMENT OF PHYSICIAN IN RESPONSE TO REACTIONS OF THE PATIENT.

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SECTION 5: FIRE – FIGHTING MEASURES

FLASHPOINT: –
LOWER FLAMMABLE LIMITS: –
UPPER FLAMMABLE LIMITS: –
AUTO IGNITION : –
EXTINGUISHING MEDIA: (WATER , CARBON DIOXIDE , DRY CHEMICAL) Use extinguishing media appropriate for the surrounding fire. (NFPA defined Class A). Carbon dioxide is not generally recommended for use on Class A fires as a lack of cooling capacity may result in reigniting.
FIRE FIGHTING PROCEDURES: breathing apparatus should be available for use by authorized personnel
HAZARDOUS COMBUSTION PRODUCTS Under fire conditions polymers decompose. The smoke may contain polymer fragments of varying compositions in addition to unidentified toxic and / or irritating compounds. Hazardous combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.
PROTECTION OF FIREFIGHTERS Wear positive – pressure self-contained breathing apparatus and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or a safe distance.
SPECIFIC METHODS OF FIREFIGHTING Keep people away. Isolate fire area and deny unnecessary entry. Cool surroundings with water to localise fire zone. Soak thoroughly with water to cool and prevent reigniting.

SECTION 6:ACCIDENTAL RELEASE MEASURES

Person-related safety precautions: Particular danger of slipping on leaked/spilled product.
Measures for environmental protection: No special measures required.
Measures for cleaning/collecting: Recycle product or dispose properly.
Additional information: Spilled material may present a slipping hazard

SECTION 7: HANDLING AND STORAGE

HANDLING
Keep away from possible ignition sources. Use local exhaust extraction over thermal processing equipment.
Advice for safe handling
Avoid prolonged contact with the skin. Wash hands exposed skin before eating, drinking or smoking and after work.
Avoid contact with heated or molten product.
STORAGE PRECAUTIONS: Avoid extreme temperatures. Store in a cool and dry place in original container and protect from sunlight.

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ISO 14001:2004
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SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE / FACE PROTECTION REQUIREMENTS: Where contact with this material is likely, eye protection is recommended.

SKIN PROTECTION REQUIREMENTS: For brief contact, normal work attire should be sufficient.

RESPIRATORY PROTECTION REQUIREMENTS: Under normal use conditions, with adequate ventilation, no special handling equipment is required.

ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: White, slightly yellow bale with slight odour possible.	**BOILING POINT**: –
SULUB. In WATER: Insoluble in water	**MELTING POINT**: –
SULUB in OTHER: soluble in petroleum, distillates	**SPEC GRAV**: 0.90 to 1.02
FLASH POINT : Not Applicable	
AUTOIGNITION TEMPERATURE : Not Determined	
EVAPORATION RATE : ___	**VAPORT DENSITY :** ___
VAPORT PRESSURE : ___	**MELTING POINT :** ___

SECTION 10: STABILITY AND REACTIVITY DATA

STABILITY	Stable. Materials containing similar structural groups are normally stable.
CONDITIONS TO AVOID	Avoid temperatures above 177C/350F, the onset of polymer decomposition.
INCOMPATIBILITY	There are no known materials which are incompatible with this product.
HAZARDOUS DECOMPOSITION PRODUCTS	Avoid temperatures above 177C/350F, the onset of polymer decomposition.
HAZARDOUS POLYMERIZATION	Hazardous polymerization will not occur. However, avoid temperatures above 177C/350F, the onset of polymer decomposition.

SECTION 11: TOXICOLOGICAL INFORMATION

There is no toxicology information on this material; however, the components possess irritancy potential. The concentration of unreacted 1, 3 butadiene is typically 1 ppm, maximum.

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EYE CONTACT

May cause irritation or corneal injury due to mechanical action.

Vapours / fumes released during thermal processing may cause eye irritation.

SKIN CONTACT

Essentially non-irritating to skin.

Skin absorption is unlikely due to physical properties.

INGESTION

Single dose oral toxicity is considered to be extremely low.

No hazards anticipated from swallowing small amounts incidental to normal handling operations.

Single dose oral ld50 has not been determined.

INHALATION

At room temperature, vapours are minimal due to physical properties.

Vapours / fumes released during thermal processing may cause respiratory irritation.

SECTION 12 : ECOLOGICAL INFORMATION

Information about elimination (persistence and degradability) :
Other information: the product is not biodegradable.
Mobility and bioaccumulation potential :
There is no bioaccumulation.
General notes :
The product is not toxic, small particles can have physical effects on water and soil organisms.
Assessment largely or completely based on data for similar material (s).

ENVIRONMENTAL FATE

- MOVEMENT AND PARTITIONING

No bioconcentration is expected because of the relatively high molecular weight (mw greater than 1000).
In the terrestrial environment, material is expected to remain in the soil.
In the aquatic environment, material is expected to float.

- DEGRADATION AND PERSISTENCE

Surface photo degradation is expected with exposure to sunlight.

- Ecotoxicology

Not expected to be acutely toxic.

SECTION 13: SPILL AND DISPOSAL CONSIDERATIONS.

SAFEGUARDS (PERSONNEL): Wear appropriate personal protection equipment.
INITIAL CONTAINMENT: Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.
LARGE SPILLS PROCEDURE: Handle as solid waste. Vacuum or sweep up material and place in a disposal container.
SMALL SPILLS PROCEDURE: Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.
WASTE DISPOSAL: Treat or dispose of waste material in accordance with all local, State/provincial and national requirements.

SECTION 14:TRANSPORT INFORMATION
Transport/Additional information:
According to national and international guidelines, which regulate the road-, rail-, air- and sea transport, this product is not classified for any mode of transportation.

SECTION 15 : REGULATORY INFORMATION
No information

SECTION 16: OTHER INFORMATION
NFPA Rating: Health - 2, Flammability - 1, Reactivity – 0

DISCLAIMER OF RESPONSIBILITY
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