



## MATERIAL SAFETY DATA SHEET

### BUTYL RUBBER (IIR)

#### IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name	Poly (isoprene-co-isobutene)
Trade Name	Butyl Rubber (IIR)
Synonyms	Isobutylene, polymer with isoprene; 1.3-Butadiene, 2-methyl-, polymer with 2-methyl-1-propene
Chemical Name	2-methylprop-1-ene, polymer with 2-methylbuta-1.3-diene
CAS No.	9010-85-9
EC No.	618-457-5
REACH Registration No.	Not known.
Identified Use(s)	Rubber compound and Medical production
Uses Advised Against	Not known.

#### HAZARDS IDENTIFICATION

Regulation (EC) No. 1272/2008 (CLP)	Not classified as dangerous for supply/use.
Product Name	Poly (isoprene-co-isobutene)
Hazard Pictogram(s)	None.
Signal Word(s)	None.
Hazard Statement(s)	None.
Precautionary Statement(s)	None.
Other hazards	Combustible solid. Molten material can cause severe burns. Processing vapours may form when product is heated at high temperatures. Processing vapours may contain thermal decomposition products which can irritate eyes and respiratory tract.

**COMPOSITION/INFORMATION ON INGREDIENTS**

This product is a synthetic rubber, consisting of at least 98.0% co-polymer from isoprene and isobutene (with 1.7-1.9% bound isoprene), calcium distearate (CAS:1592-23-0/ EC:216-472-8), antioxidant (CAS:6683-19-8/ EC:229-722-6).

Substances	Contains no non-classified vPvB substances. Contains no non-classified substances with a Union workplace exposure limit. For full text of H/P Statements see section 16.
Mixtures	None.

**FIRST AID MEASURES**

Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Skin Contact	Wash skin with water. If symptoms develop, obtain medical attention.
Eye Contact	Flush eyes with water for at least 15 minutes. If symptoms occur obtain medical attention.
Ingestion	Wash out mouth with water. If symptoms persist, obtain medical attention.
Most important symptoms and effects, both acute and delayed	Molten material can cause severe burns. Processing vapours may contain thermal decomposition products which can irritate eyes and respiratory tract
Indication of any immediate medical attention and special treatment needed	Unlikely to be required but if necessary treat symptomatically.

**FIREFIGHTING MEASURES**

Suitable Extinguishing media	Water spray, dry chemical, sand or carbon dioxide.
Unsuitable extinguishing media	Do not use water jet.
Special hazards arising from the substance or mixture	Combustible solid. Decomposes in a fire giving off toxic fumes: Carbon oxides may be formed. Oxygen, Soot.

**Advice for firefighters**

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Water spray should be used to cool containers.

**ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Take precautionary measures against static discharges. Provide adequate ventilation. Wear suitable gloves if prolonged skin contact is likely.

Environmental precautions

Do not release large quantities into the surface water or into drains.

Methods and material for containment and cleaning up

Sweep spilled substances into containers. Transfer to a container for disposal.

Reference to other sections

See Also Section 8, 13.

**HANDLING AND STORAGE**

Precautions for safe handling

Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures. Take precautionary measures against static discharges. Processing vapours: Avoid inhalation of vapours. Avoid contact with eyes.

Conditions for safe storage, including any incompatibilities

Keep in a cool, dry, well ventilated place.

Storage temperature

Store at temperatures not exceeding (°C): 40

Storage life

Stable under normal conditions.

Incompatible materials

Acids, Alkalis, Organic solvents, Aliphatic and aromatic hydrocarbon, Strong oxidising agents, Caustics.

Specific end use(s)

Rubber compound and Medical production.



#### PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Colour	White -Yellow
Odour	Peculiar.
Melting point/freezing point	Not known.
Boiling point or initial boiling point and boiling range	Not known.
Flammability	Combustible solid.
Lower and upper explosion limit	Not known.
Flash Point	Not applicable.
Auto-ignition temperature	Not known.
Decomposition Temperature	Not known.
pH	Not known.
Kinematic Viscosity	46-56UM conv.units @ 125°C (Mooney, UML 1+8) 35-47UM conv.units @ 125°C (Mooney, UML 1+8)
Solubility	Solubility (Water) : Insoluble in water. Solubility (Other) : Soluble in: Aromatic solvent
Partition coefficient n-octanol/water (log value)	Not known.
Vapour pressure	Not known.
Density and/or relative density	Relative density : 0.91-0.92g/cm <sup>3</sup>
Relative vapour density	Not known.
Particle characteristics	Not known.
Ignition temperature	295-325°C
Glass transition temperature	-69°C



#### STABILITY AND REACTIVITY

Reactivity	May undergo oxidation, hydrogenate.
Chemical Stability	High temperatures cause thermal destruction with emissions of isobutylene and isoprene.
Possibility of hazardous reactions	No hazardous reactions known if used for its intended purpose.
Conditions to avoid	Avoid contact with heat and ignition sources.
Incompatible materials	Acids, Alkalis, Organic solvents, Aliphatic and aromatic hydrocarbon, Strong oxidising agents, Caustics.
Hazardous decomposition products	Hazardous substances of thermal destruction: Spirits, aldehydes, ketones, Acids, Carbon oxides.

#### TOXICOLOGICAL INFORMATION

Acute toxicity - Ingestion	Not classified. Low oral toxicity.
Acute toxicity - Skin Contact	Not classified. Low acute toxicity.
Acute toxicity - Inhalation	Not classified. Low acute toxicity.
Skin corrosion/irritation	Not classified.
Serious eye damage/irritation	Not classified. Processing vapours: May cause eye irritation.
Skin sensitization data	Not classified. It is not a skin sensitizer.
Respiratory sensitization data	Not classified.
Germ cell mutagenicity	Not classified. There is no evidence of mutagenic potential.
Carcinogenicity	Not classified. No evidence of carcinogenicity.
Reproductive toxicity	Not classified. No evidence of reproductive effects.





Lactation	Not classified.
STOT - single exposure	Not classified. Processing vapours: Mechanical irritation of the respiratory tract.
STOT - repeated exposure	Not classified.
Aspiration hazard	Not classified.
Information on other hazards	Not known.

#### ECOLOGICAL INFORMATION

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified.
Toxicity - Terrestrial Compartment	Not classified.
Persistence and degradability	Not readily biodegradable.
Bioaccumulative potential	No information available.
Mobility in soil	Insoluble in water. The substance is predicted to have low mobility in soil.
Results of PBT and vPvB assessment	Not classified as PBT or vPvB.
Endocrine disrupting properties	None known.
Other adverse effects	None known.

#### DISPOSAL CONSIDERATIONS

Waste treatment methods	Dispose of wastes in an approved waste disposal facility. Dispose of contents in accordance with local, state or national legislation.
Additional Information	EU Waste Codes: 19 12 04 plastic and rubber



#### TRANSPORT INFORMATION

Not classified as hazardous for transport.

UN number or ID number	Not applicable
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UN proper shipping name	Not applicable
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Transport hazard class(es)	Not applicable
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Packing group	Not applicable
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Environmental hazards	Not classified as a Marine Pollutant.
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Special precautions for user	Not known
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Maritime transport in bulk according to IMO instruments	Not known
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#### REGULATORY INFORMATION

European Regulations - Authorisations and/or Restrictions On Use	Not listed
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Candidate List of Substances of Very High Concern for Authorisation	Not listed
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REACH: ANNEX XIV list of substances subject to authorisation	Not listed
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REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Not listed
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Community Rolling Action Plan (CoRAP)	Not listed
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Regulation (EU) N° 2019/1021 of the European Parliament and of the Council on persistent organic pollutants	Not listed
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Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer	Not listed
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Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals	Not listed
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National regulations Wassergefährdungsklasse (Germany)	WGK number 3 (highly hazardous to water)
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Chemical Safety Assessment	A REACH chemical safety assessment has not been carried out.
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#### OTHER INFORMATION

The following sections contain revisions or new statements:

Hazard Pictogram(s)	None.
Precautionary Statement(s)	None.
Acronyms	ATE : Acute Toxicity Estimate
	CAS : Chemical Abstracts Service
	CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
	DNEL : Derived No Effect Level
	EC : European Community
	EINECS : European Inventory of Existing Commercial Chemical Substances
	LTTEL : Long term exposure limit
	PBT : Persistent, Bioaccumulative and Toxic
	PNEC : Predicted No Effect Concentration
	REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
	STEL : Short term exposure limit
	STOT : Specific Target Organ Toxicity
	vPvB : very Persistent and very Bioaccumulative
	STEL : Short term exposure limit

Key literature references and sources for Regulation (EC) No. 1272/2008 (CLP) data used to compile the SDS

Disclaimers	Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose.
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