

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 1/13

SECTION 1: IDENTIFICATION

GHS Product identifier:	Synthetic latex
Other ways of identification:	DL 2212LA / DL 2219LA / DL 2233LA / DL 2241LA / DL 2242LA / DL 2247LA / DL 2249LA / DL 2256LA / DL 2258LA / DL 2290LA / DL 2292LA / DL 2703LA / DL 2705LA / DL 303LA / DL 3303LA / DL 460LA / DL 6620LA / DL 6621LA / DL 6638LA / DL 6902LA / DL 6913LA / DL 6939LA / DL 6950LA / DL 8220LA / DL 8253LA / DL 8801LA / DL 8802LA / DL 8805LA / DL 8806LA / DL 8810LA / DL 8816LA / DL 8819LA / DL 8852 LA / DL 8855LA / DL 8866LA / DL 8870LA / DL 8871LA / DL 8891LA. DPF 4905 / DPF 4910 / DPF 4917 / DPF 4920 LA / DRT 4700 ROTOPRINT / LATEX DL 6990LA / LATEX SR 230 / RAP 1010LA / RAP 6966LA. XG 81037.00 / XG 81102.00 / XG 81102.01 / XG 81103.00 / XG 81104.00 EXP LATEX / XG 81105.00 / XG 81106.00 EXP LATEX / XG 81108.00 EXP LATEX / XG 81109.00 EXP LATEX / XG 81675.00 EXP LATEX / XG 81678.00 / XG 81679 / XG 81680.00 / XG 81682.00 EXP LATEX / XG 81683.00 EXP LATEX / XG 81684.00 EXP LATEX / XG 81685.00 EXP LATEX / XG 81686.00 EXP LATEX / XG 81689.00 EXP LATEX / XG 81690.00 EXP LATEX.
Recommended use of the chemical and restrictions on use:	Industrial use. Typically used as a binder.
Supplier's details:	COMPANHIA BRASILEIRA DE ESTIRENO. Avenida Santos Dumont, 4444 – Jd. Conceiçãozinha – Guarujá – SP, Brasil. (+55 13) 3355-3086
Emergency phone number:	0800 110 8270 Pró-Química.

SECTION 2: HAZARD IDENTIFICATION

Classification of the substance or mixture:	Product not classified as hazardous by the Classification System used.
Classification system adopted:	Globally Harmonized System of Classification and Labelling of Chemicals (GHS), United Nations, 2023.

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 2/13

Other hazards which do not result in classification: May cause some minor health effects to humans. Combustible solid. Product flow may generate static charges, which may result in sparks. It is recommended that grounding systems be used during unloading and transfers.

GHS label elements, including precautionary statements

Pictograms: Not applicable.

Signal word: Not applicable.

Hazard statement(s): Not applicable.

Precautionary statement(s): Wash your hands after handling the product.
Do not drink, eat or smoke while handling the product. It is recommended to use appropriate PPE when handling the product.
Obtain information about the product before handling. Store the product in a suitable place.
In case of emergency, proceed as indicated in the SDS.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**MIXTURE**

Ingredients and impurities that contribute to the hazard:

Components	Concentration	Number CAS	GHS Classification
Water	≥ 45.0 - ≤ 55.0%	7732-18-5	Not classified as hazardous
Styrene-Butadiene copolymer*	≥ 45.0 - ≤ 55.0%	N.A.	Not classified as hazardous

N.A. Not applicable.

*The Styrene and Butadiene Copolymer is a mixture and does not have a CAS number. This mixture contains impurities of Styrene (CAS 100-42-5) and 1,3-Butadiene (CAS 106-99-0). These components are classified as hazardous; however, they are in concentrations below the extrapolation limits to classify the polymer as hazardous.

SECTION 4: FIRST-AID MEASURES**Routes of exposure**

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 3/13

Inhalation:	Remove the victim to a ventilated area. If you feel unwell, contact a doctor. Take this SDS with you.
Skin:	Wash exposed skin with sufficient soap and water to remove the material. Seek medical attention if necessary. Take this SDS with you.
Eye:	Rinse thoroughly with water for several minutes. If you wear contact lenses, remove them if this is easy to do. If eye irritation occurs consult a doctor. Take this SDS with you.
Ingestion:	Do not induce vomiting. Do not give anything by mouth to an unconscious person. Wash the victim's mouth with plenty of water. If vomiting occurs, tilt the patient forward or place him or her on the left side (up if possible) to keep the airway open and prevent aspiration. Keep the patient quiet and maintain a normal body temperature. Consult a POISON CENTER or physician. Bring this SDS.
Most important symptoms/effects, acute and delayed:	Prolonged contact may cause skin irritation with localized redness. Latex may stick to the skin, causing irritation when removed. May cause slight temporary eye irritation. Inhalation of vapors may cause mild respiratory irritation, headache, nausea and vomiting.
Indication of immediate medical attention and special treatment needed, if necessary:	Avoid contact with the product when assisting the victim. Treatment for exposure should be aimed at controlling the symptoms and clinical condition of the patient. In case of contact with the skin, do not rub the affected area. Be careful when peeling the latex from the skin.

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Suitable: Water fog, dry chemical, synthetic foam and carbon dioxide (CO ₂). Not recommended: Direct water jets.
Specific hazards arising from the chemical:	This material will not burn until the water has evaporated. The residue may burn. When ignited, the dry product generates dense black smoke. Combustion of the chemical or its packaging may form: carbon monoxide (CO) and carbon dioxide (CO ₂) and dense smoke and organic compounds.
Special protective actions for fire-fighters:	Wear self-contained breathing apparatus with positive pressure and full protective clothing. Keep bystanders away and isolate the area at risk. Use water mist or foam. Cool surrounding areas to locate the fire zone. Hand-held carbon dioxide or dry chemical extinguishers may be

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 4/13

used for small fires.

SECTION 6: ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel:	Preventatively isolate ignition sources. Do not smoke. Avoid contact with the product. If necessary, use personal protective equipment as described in section 8.
For emergency responders:	Preventatively remove ignition sources. Use complete PPE, with glasses with side protection, suitable protective gloves, closed shoes and safety clothing to protect the body, Protective mask with filter against mists and vapors.
Environmental precautions:	Prevent the product from reaching soil and watercourses. Notify the relevant authorities if the product has caused environmental pollution (if it has reached watercourses or if it has contaminated soil or vegetation).
Methods and materials for containment and cleaning up:	Stop the leak if there is no risk. Contain the spilled product with sand, clay, earth or vermiculite dams and transfer it to a suitable container, which must be correctly labeled. To clean the floor and all objects contaminated by this product, use an appropriate product. The water used to clean the site must be collected for later disposal; incineration is recommended. For final disposal, proceed in accordance with Section 13 of this SDS.

SECTION 7: HANDLING AND STORAGE**Precautions for safe handling**

Safe handling of the substance or mixture:	Avoid sources of ignition in areas where the product is handled. Handle in a ventilated area or with a general ventilation/local exhaust system. Avoid the formation of mists and vapors and exposure to the product. Use personal protective equipment as described in section 8.
General hygiene:	Wash your hands and face thoroughly after handling and before eating, drinking, smoking or using the toilet. Contaminated clothing should be changed and washed before reused. Remove contaminated clothing and protective equipment before entering eating areas.

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 5/13

Conditions for safe storage, including any incompatibilities

Technical measures for prevention of fire and explosion:	Keep away from any flame or ignition source. Static charge build-up should be avoided during pneumatic loading and other mechanical handling operations. Keep equipment properly grounded.
Adequate conditions:	Store in a well-ventilated, dry, cool place away from sunlight. Keep the container closed. Containers that have been opened should be carefully resealed. Do not store in unlabeled containers. Use appropriate containment to prevent environmental contamination. Refer to Section 10 for incompatible materials. Store between 4.4°C and 43.3°C. May coagulate if frozen at 0°C. Material may develop bacterial odor on long-term storage.
Packaging compatibilities:	It is recommended to keep them in their original packaging.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
Control parameters

Occupational exposure limit:	Chemical agent	TWA-TLV (ACGIH, 2025)
	1,3-Butadiene A2	2 ppm
	Styrene, OTO monomer; A3	TWA 10 ppm STEL 20 ppm
Biological limit:	A2: Suspected human carcinogen (ACGIH).	
	A3: Confirmed animal carcinogen with unknown relevance to humans (ACGIH).	
	OTO: Ototoxic.	
	BEI (ACGIH, 2025):	
	<u>1,3-Butadiene:</u> 1,2-Dihydroxy-4-(n-acetylcysteiny)-butane in urine (end of day): 2.5 mg/L. Sq. B. Mixture of hemoglobin (Hb) adducts of N-1 and N-2-(hydroxybutenyl) valine in blood: 2.5 pmol/g Hb. Sq. (no critical time for collection).	
<u>Styrene:</u>		

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 6/13

Mandelic + Phenylglyoxylic acids in urine (end of day): 150 mg/g creatinine. Ne

Styrene in urine (end of day): 20 µg/L.

Sq: Semiquantitative.

B: Background.

Ne: Nonspecific.

Other limits and values: Styrene: IDLH: 700 ppm (NIOSH, 2017).

Appropriate engineering controls: Provide mechanical ventilation and a direct exhaust system to the outside environment. These measures help reduce exposure to the product. Keep atmospheric concentrations of the chemical agent below the indicated occupational exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection: Use wide-vision safety glasses.

Skin protection: The use of protective gloves is recommended, such as: Chlorinated polyethylene. Polyethylene. Laminated ethyl vinyl alcohol (EVAL). Styrene/butadiene rubber. Butyl rubber. Neoprene. Nitrile/butadiene rubber (nitrile). Polyvinyl chloride (PVC or vinyl). Viton. Not recommended: Gloves made of: Polyvinyl alcohol (PVA).
Wear full-body protective clothing with long sleeves and closed shoes.

Respiratory protection: It is recommended to use a respirator with a filter for organic vapors with a particulate pre-filter.

Based on the danger of inhalation of the product, a risk assessment must be carried out to adequately define respiratory protection considering the conditions of use of the product.

Thermal hazards: There are no known thermal hazards from the products.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Dispersion.

Colour: White.

Odour: Characteristic.

Melting point/freezing point: 0°C.

Boiling point or initial boiling: 100°C.

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 7/13

point and boiling range:

Flammability: Not flammable.

Lower and upper explosion
limit /flammability limit: Not available.

Flash point: Not evaluated (aqueous product).

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

pH: 4.0 – 10.5 Estimated.

Kinematic viscosity: < 500 cSt Estimated.

Solubility: Miscible in water (all proportions).

Partition coefficient n-
octanol/water (log value): Not available.

Vapour pressure: 17.5 mmHg at 20°C.

Density and/or relative
density: 0.95 – 1.10 g/cm³.

Relative vapour density: 0.6.

Particle characteristics: Not applicable.

Other information: Not available.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: No reactivity of the product is expected.

Chemical stability: Product stable under normal temperature and pressure conditions.

Possibility of hazardous
reactions: There are no known dangerous reactions with the product.

Conditions to avoid: High temperatures (above 300°C), heat, friction and contact with incompatible materials.

Incompatible material: May coagulate if frozen. Dried resin is combustible.

Hazardous decomposition
products: Decomposition products depend on temperature, air supply and presence of other materials.

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 8/13

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:	<p>The product is not expected to show acute toxicity by oral, dermal or inhalation routes.</p> <p><u>Latex:</u> LD₅₀ (oral, rats): > 5,000 mg/kg. LD₅₀ (dermal, rats): > 2,000 mg/kg.</p> <p><u>Styrene:</u> LD₅₀ (oral, rats): > 5,000 mg/kg. LD₅₀ (dermal, rabbits): > 2,000 mg/kg. LC₅₀ (inhalation, rats, 4h): 11.8 mg/L.</p> <p><u>1,3-Butadiene:</u> LC₅₀ (inhalation, rats, 4h): 285,000 mg/m³.</p>
Skin corrosion/irritation:	<p>The product is not expected to cause skin irritation. Because it is latex, it may adhere to the skin and cause redness when the material is removed from the skin.</p>
Serious eye damage/irritation:	<p>May cause slight temporary eye irritation.</p>
Respiratory or skin sensitization:	<p>The product is not expected to cause respiratory or skin sensitization.</p> <p><u>Latex:</u> Tests conducted on guinea pigs have shown negative results.</p>
Germ cell mutagenicity:	<p>The product is not expected to cause germ cell mutagenicity.</p> <p><u>Styrene:</u> There is no convincing evidence that styrene has shown mutagenic activity in humans. Available in vivo data in experimental animals suggest that styrene is weakly positive in indicator tests that detect SCEs, DNA strand breaks and DNA adducts. In contrast, an in vivo UDS test performed in accordance with international guidelines did not reveal a genotoxic effect of styrene in the liver of mice.</p> <p><u>1,3-Butadiene:</u> Studies conducted with 1,3-Butadiene have shown that the compound is genotoxic in vitro and in vivo in mouse somatic and germ cells. Available data on various groups of workers exposed to 1,3-Butadiene have not shown any association between exposure to the compound</p>

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 9/13

and an increase in genetic mutations, particularly HPRT mutations. No chromosomal aberrations related to 1,3-Butadiene have been demonstrated in humans. However, at the concentration at which 1,3-Butadiene is present in the product and in polymer form, it is not expected to pose a danger to human health.

The product is not expected to cause carcinogenicity.

1,3-Butadiene:

The ACGIH classifies 1,3-Butadiene as group A2 – Suspected Human Carcinogen.

The IARC classifies 1,3-Butadiene as group 1 – Human Carcinogen.

Styrene:

The ACGIH classifies Styrene as group A3 – Confirmed Animal Carcinogen with Unknown Relevance to Humans.

The IARC classifies Styrene as group 2A – Probably Carcinogenic to Humans.

*The ingredients are classified as carcinogenic, however, at the concentration in which they are present in the product and in the polymer form, they are not expected to pose a risk to human health.

The product is not expected to cause reproductive toxicity.

Styrene:

Animal studies have shown a decrease in the growth rate of F2 generation offspring, a decrease in the weight of the pituitary gland, among other effects. However, at the concentration in which Styrene is present in the product and in the polymer form, it is not expected to pose a risk to human health.

Carcinogenicity:

Reproductive toxicity:

STOT - Single exposure:

Inhalation of vapors may cause mild respiratory irritation, headache, nausea and vomiting.

The product is not expected to cause target organ toxicity through repeated exposure.

Styrene:

STOT - Repeated exposure:

There is evidence that maximum hearing impairment is already reached after one to a few weeks of exposure and that ototoxicity does not increase with prolonged exposure. ACGIH classifies Styrene as ototoxic. However, at the concentration at which Styrene is present in the product and in polymer form, it is not expected to pose a danger

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 10/13

to human health.

Aspiration hazard: The product is not expected to present an aspiration hazard.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity: The product is not expected to be harmful to aquatic organisms.
Latex:
LC₅₀ (*Oncorhynchus mykiss*, 96 h): > 100 mg/L.
EC₅₀ (*Daphnia magna*, 48 h): > 100 mg/L.

Persistence and degradability: Although polymers are not biodegradable, they can be removed in biologically effluent treatment plants by adsorption.

Bioaccumulative potential: No bioconcentration potential is expected for the polymeric component due to its high molecular weight. Latex dispersions cause water to turn milky.

Mobility in soil: Not available.

Other adverse effects: No other effects of the product are known.

SECTION 13: DISPOSAL CONSIDERATIONS**Elimination methods**

Product: Treatment and disposal should be evaluated specifically for each product. Keep the remaining product in its original, tightly closed container. Disposal should be carried out as directed for the product.

Product remains: Keep the remaining product in its original packaging and tightly closed. Dispose of according to the product's guidelines.

Packaging used: Do not reuse empty packaging. These may contain product residue and should be kept sealed and sent for proper disposal as specified for the product.

SECTION 14: TRANSPORT INFORMATION

Road: UN - "United Nations"
Recommendations on the TRANSPORT OF DANGEROUS GOODS.
Model Regulations

UN Number: Not classified as hazardous for land transport.

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 11/13

Rail:	Convention concerning International Carriage by Rail (COTIF) Appendix C - Regulations concerning the International Carriage of Dangerous Goods by Rail - RID
UN Number:	Not classified as hazardous for land transport.
Sea:	<i>IMO – International Maritime Organization International Maritime Dangerous Goods Code (IMDG Code)</i>
UN Number:	Not classified as hazardous for waterways.
Air:	<i>IATA - International Air Transport Association Dangerous Goods Regulation (DGR)</i>
UN Number:	Not classified as hazardous for air transport.
Special precautions for user:	There is no need of special precautions.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:	Consult regulations: - International Maritime Organization. MARPOL: Articles, protocols, annexes, unified interpretations of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, consolidated edition. IMO, London, 2006. - International Maritime Organization. IBC code: International code for the construction and equipment of shipping carrying dangerous chemicals in bulk: With Standards and guidelines relevant to the code. IMO, London, 2007.

SECTION 15: REGULATORY INFORMATION

Chemical regulations	Convention concerning Safety in the use of Chemicals at Work (Convention 170) - International Labour Organization, 1990. SGA. Globally Harmonized System of Classification and Labeling of Chemical Products. 10. Ed. New York: United Nations, 2023.
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SECTION 16: OTHER INFORMATION

This SDS was prepared based on current knowledge about the proper product handling and under normal conditions of use, in accordance with the application specified on the packaging. Any other use of the product involving their combination with other materials, and use various forms of those

SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 12/13

indicated, are the responsibility of the user. Warns that the handling of any chemical substance requires prior knowledge of its hazards for the user. In the workplace it is for the user company's product promotes training of its collaborators about the possible risks arising from exposure to the chemical.

SDS prepared in May 2025.

Abbreviations:

ACGIH – American Conference of Governmental Industrial Hygienists

AIHA – American Industrial Hygiene Association

BCF – Bioconcentration Factor

BEI – Biological Exposure Index

CAS – Chemical Abstracts Service

C – Ceiling

EC₅₀ – Effective Concentration 50%

LC₅₀ – Lethal Concentration 50%

LD₅₀ – Lethal Dose 50%

ERPG - Emergency Response Planning Guidelines

LEL – Lower Explosive Limit

UEL – Upper Explosive Limit

NIOSH – National Institute of Occupational Safety and Health

OSHA – Occupational Safety & Health Administration

PEL – Permissible Exposure Limit

REL – Recommended Exposure Limit

STEL – Short Term Exposure Limit

TLV – Threshold Limit Value

TWA – Time Weighted Average

Bibliographic references:

ACGIH. AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2025.

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SAFETY DATA SHEET

Product: SYNTHETIC LATEX

Revision: 00

Date: 28/05/2025

Pages: 13/13

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