

SECTION 1: Identification

Identification of the product

Trade name : Bioriented polypropylene films (BOPP).
Chemical name : Polypropylene.
Recommended use of the product and restrictions on use : Substrate for metallizing, printing, making food packaging and other products, labels, adhesive tapes, etc.

Supplier's details

Name : VIDEOLAR - INNOVA S/A
Full address : Unit I:
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+55 (51) 3883-6700

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SECTION 2: Hazards identification

Classification of the substance

Hazard classification system according to the Globally Harmonized System for the Classification and Labelling of Chemicals. Standard ABNT NBR 14725:2023.

Not classified as hazardous according to ABNT NBR 14725.

GHS labeling elements, including precautionary phrases

Pictogram : ---
Signal word : ---
Hazard statement : There are no hazard phrases for this product.
Precautionary statement : There are no precautionary statements for this product.

Other hazards which do not result in classification

There are no other known hazards that do not result in a rating.

SECTION 3: Composition/information on ingredients

Substance: not applicable.

Mixture:

| Chemical identify | CAS number | Synonyms | Concentration (%) | Classification in accordance to GHS-BR (ABNT NBR 14725:2023) |
|-------------------|----------------------------|--------------------------|-------------------|---|
| Polypropylene | 9003-07-0 EC: 618-352-4 | 1-propene homopolymer | ≥ 90% | Ingredient not classified as hazardous according to GHS criteria. |
| Calcium carbonate | 471-34-1 | ND | ≤ 8% | Acute toxicity - Oral: Category 5. Acute toxicity - Dermal: Category 5. Acute toxicity - Inhalation: Category 4. Hazardous to the aquatic environment - Acute: Category 3. |
| Polyethylene | 9002-88-4 | ND | ≤ 7% | Hazardous to the aquatic environment - Acute: Category 3. Flammable gases: Category 1. |
| Titanium dioxide | 13463-67-7 | ND | ≤ 4% | Acute toxicity - Oral: Category 5. Acute toxicity - Inhalation: Category 4. |

Hazard classification system according to the Globally Harmonized System for the Classification and Labelling of Chemical Products. ABNT-NBR 14725: 2023 standard.

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SECTION 4: First-aid measures

Description of first aid measures

| | | |
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| <u>Description of necessary first aid measures</u> | : | Remove person to fresh air. Remove all contaminated clothing. Wash affected parts of body with plenty of water and soap. If the victim is unconscious and does not breathe more, practice oxygenation or artificial respiration. Take victim to the nearest medical service and take this sheet. |
| <u>Inhalation</u> | : | Remove person to fresh air. If breathing is difficult, give oxygen and consult a doctor immediately. If victim is not breathing, give artificial respiration. Use an intermediate or device for manual ventilation (Ambu® type) to perform the procedure. WARNING: Never give anything by mouth to an unconscious person.. |
| <u>Skin contact</u> | : | Immediately wash the affected area with plenty of water and soap. Remove and wash contaminated clothing before reuse and dispose of contaminated shoes. In the event of any effects/symptoms, consult a doctor. |
| <u>Eye contact</u> | : | Wash them immediately with plenty of water. Keep eyelids open to ensure adequate eye rinsing. If it is possible to remove contact lenses. Consult an ophthalmologist if irritation develops. |
| <u>Ingestion</u> | : | Immediately rinse mouth with plenty of water. Do not induce vomiting, however it may occur spontaneously and should not be avoided. Lay the patient on their side to prevent them from aspirating residues. Seek medical attention immediately. WARNING: Never give anything by mouth to an unconscious person. |

Most important symptoms/effects, acute and delayed

| | | |
|--|---|--|
| <u>Main Symptoms</u> | : | Ingestion of the product can cause general symptoms such as nausea, vomiting, abdominal pain and discomfort. |
| <u>Adverse health effects to human</u> | : | There are no known adverse effects on human health as a result of indicated use of this product. |
| <u>Environmental effects</u> | : | There are no known environmental effects from the indicated use of this product. |
| <u>Physical and chemical hazards</u> | : | There are no known physical or chemical hazards from the intended use of this product. |

Indication of immediate medical attention and special treatment needed, if necessary

| | | |
|--|---|---|
| <u>Protection for first aid providers</u> | : | Avoid oral, skin, eye and inhalation contact with the product during the process. |
| <u>Indication of immediate medical attention and special treatments required, if necessary</u> | : | There is no specific antidote. In the event of ingestion, gastric emptying procedures can be carried out. Symptomatic treatment should include supportive measures such as correction of hydroelectrolytic and metabolic disorders, as well as respiratory assistance. Monitor liver and kidney function if necessary. In the event of skin contact, wash the area with plenty of water and refer for dermatological assessment. In the event of eye contact, rinse with saline solution and refer for ophthalmological assessment. |

SECTION 5: Fire-fighting measures

Extinguishing media

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|---------------------------------------|---|---|
| <u>Suitable extinguishing media</u> | : | Use water mist, foam, carbon dioxide (CO ₂) and chemical powder. |
| <u>Unsuitable extinguishing media</u> | : | Avoid using water jets directly on the product. The use of a strong jet of water can spread the fire. |

Specific hazards arising from the chemical

Combustion of the product can generate toxic and/or irritating gases.

Special protective actions for fire-fighters

Wear self-contained breathing apparatus and appropriate fire-fighting clothing. Evacuate the area and fight the fire from a safe distance. Use dikes to contain the water used in the fight. Stand with your back to the wind. Use water in the form of a mist to cool exposed equipment near the fire.

SECTION 6: Accidental release measures

Personal protections, protective equipment, and emergency procedures

Wear waterproof overalls, protective goggles, rubber boots and nitrile rubber gloves. Respiratory protection should be provided depending on the concentrations present in the environment or the extent of the spill/leak.

| | | |
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| <u>Removal of ignition sources</u> | : | Interrupt electrical power and turn off sources of sparks. Remove all material that could cause a fire from the place (example: diesel oil). |
| <u>Dust control</u> | : | Isolate and mark the contaminated area. Cover the spillage with a plastic tarpaulin or apply water mist to the dust. |
| <u>Prevention of inhalation and contact with skin, mucous membranes, and eyes</u> | : | Wear the clothing and accessories described above under Personal Precautions. |

Environmental precautions

Prevent contamination of waterways by sealing storm drains (manholes). Prevent spilled product residues from reaching water bodies such as streams, lakes, water sources, wells, storm sewers, and effluents.

Methods and materials for containment and cleaning up

| | | |
|------------------------|---|---|
| <u>For containment</u> | : | Eliminate all sources of fire or heat. Keep the curious away and signal the danger to traffic. Avoid contact with skin and clothing. Spilled should no longer be used. Contact the registrant for its return and final destination. |
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- Cleaning methods : **Paved floor:** Collect the material with a shovel, place in sealed container, and properly identified. The spilled product should not be used again. In this case, consult the registrant through the telephone number indicated on the label for return and final destination. **Soil:** Remove layers of contaminated soil until reaching the uncontaminated soil, collect this material and place in a sealed container and properly identified. Contact the registrant as indicated above. **Water bodies:** Immediately stop the collection for human or animal consumption, contact the nearest environmental agency and the company's emergency center, since the measures to be adopted depend on the proportions of the accident, the characteristics of the water body in question and the quantity of product involved.
- Secondary hazards prevention : Prevent the product from contaminating streams, lakes, water sources, wells, storm sewers and effluents.

SECTION 7: Handling and storage

Precautions for safe handling

- Technical measures : Use PPE as described in Item 8. Whenever possible, keep the product in packaging and indoors. Handle the product in an open, ventilated area.
- Worker's exposure prevention : Wear PPE as described in Item 8. Do not eat, drink or smoke while handling the product. When opening the packaging, do so in such a way as to avoid dust formation. Do not use damaged and/or defective personal protective equipment. Do not unclog nozzles, holes, pipes and valves with your mouth. Do not handle and/or carry damaged packaging.
- Guidance for a safe handling : Use PPE as described in Item 8. Handle the product with appropriate local exhaust or in a well-ventilated area. In the event of symptoms of poisoning, stop work immediately and proceed as described in Item 4 of this sheet.
- Hygienic measures : Do not eat, drink or smoke while using this product. Shower and change clothes after using the product. Wash contaminated clothing separately, avoiding contact with other personal utensils.

Conditions for safe storage, including any incompatibilities

- Technical measures : Use PPE as described in Item 8. Keep people, especially children and pets away from the workplace. Do not come into direct contact with the product. Avoid spillage or contamination of the application equipment during supply.
- Storage conditions : Store in a closed container. Keep away from heat, sparks, open flames and hot surfaces. - Do not smoke. Protect from moisture.
- Incompatible materials : Solvents.
- Packing materials : Do not remove the product from its original packaging.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational exposure limits:

| Common name | Exposure limits | Type | Effect | References |
|-------------------|---|---------|---|------------|
| Polypropylene | Not established | TLV-TWA | --- | ACGIH 2025 |
| | | REL-TWA | | NIOSH |
| | | PEL-TWA | | OSHA |
| Calcium carbonate | Not established | TLV-TWA | --- | ACGIH 2025 |
| | 10 mg/m ³ (total), 5 mg/m ³ (respirable) | REL-TWA | Irritation to eyes, skin, respiratory system; cough. | NIOSH |
| | 15 mg/m ³ (total dust), 5 mg/m ³ (respirable fraction) | PEL-TWA | --- | OSHA |
| Polyethylene | Not established | TLV-TWA | --- | ACGIH 2025 |
| | | REL-TWA | | NIOSH |
| | | PEL-TWA | | OSHA |
| Titanium dioxide | 0,2 mg/m ³ ^(R) 2,5 mg/m ³ ^(R) | TLV-TWA | Irritation of the lower respiratory tract and pneumoconiosis. | ACGIH 2025 |
| | Not established | REL-TWA | --- | NIOSH |
| | | PEL-TWA | | OSHA |

^(R) – Breathable fraction.

Biological indicators:

| Common name | Determinant | BEI | Sampling time | Notations | Reference |
|-------------------|-------------|-----------------|---------------|-----------|------------|
| Polypropylene | --- | Not established | --- | --- | ACGIH 2025 |
| Calcium carbonate | --- | Not established | --- | --- | ACGIH 2025 |
| Polyethylene | --- | Not established | --- | --- | ACGIH 2025 |
| Titanium dioxide | --- | Not established | --- | --- | ACGIH 2025 |

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Exposure controls

| | | |
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| <u>Engineering controls</u> | : | Ensure good ventilation in the workplace. Measure the concentration of the limit values on a regular basis and whenever there is any change in the conditions that could have consequences for workers' exposure. |
| <u>Environmental exposure controls</u> | : | Do not exceed occupational exposure limits (OEL). |

Individual protection measures, such as personal protective equipment

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|---------------------------------|---|---|
| <u>Hand protection</u> | : | Wear protective gloves. |
| <u>Eye/face protection</u> | : | Wear chemical goggles or face mask. |
| <u>Skin and body protection</u> | : | Wear industrial protective clothing. |
| <u>Respiratory protection</u> | : | If dust is produced: anti-dust mask. |
| <u>Special precautions</u> | : | Keeping PPE properly cleaned and in suitable conditions for use, carrying out regular inspections and possible maintenance and/or replacement of damaged equipment. |

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

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|---|---|---|
| <u>Physical state</u> | : | Solid. |
| <u>Colour</u> | : | Transparent, opaque and metallic. |
| <u>Odour</u> | : | Odorless. |
| <u>pH</u> | : | Not available. |
| <u>Melting point/freezing point</u> | : | 158°C - 160°C. |
| <u>Boiling point or initial boiling point and boiling range</u> | : | Not available. |
| <u>Flash point</u> | : | 345 - 360 °C. |
| <u>Flammability</u> | : | Not available. |
| <u>Lower and upper explosion limit/flammability limit</u> | : | Not available. |
| <u>Vapour pressure</u> | : | Not available. |
| <u>Relative vapour density</u> | : | Not available. |
| <u>Density and/or relative density</u> | : | Not available. |
| <u>Solubility</u> | : | Insoluble in water. Partially soluble in aromatic hydrocarbons and ketones. |
| <u>Partition coefficient n-octanol/water (Log value)</u> | : | Not available. |
| <u>Auto-ignition temperature</u> | : | 380°C. |
| <u>Decomposition temperature</u> | : | Not available. |
| <u>Viscosity</u> | : | Not available. |
| <u>Particle characteristics</u> | : | Not available. |

Relevant data with regard to physical hazard classes

| | | |
|----------------------------|---|----------------|
| <u>Corrosive to metals</u> | : | Not available. |
| <u>Oxidizing</u> | : | Not available. |

Other safety features

No data available.

SECTION 10: Stability and reactivity

| | | |
|---|---|---|
| <u>Chemical stability</u> | : | Product is stable under conditions of use and storage indicated on label. |
| <u>Conditions to avoid</u> | : | Avoid contact with heat, high temperatures, ignition sources and exposure to direct sunlight. |
| <u>Hazardous decomposition products</u> | : | Burning the product can generate toxic and/or irritating gases. |
| <u>Incompatible material</u> | : | No data available. |
| <u>Possibility of hazardous reactions</u> | : | There are no known hazardous reactions. |
| <u>Reactivity</u> | : | The product is not reactive under normal conditions of use, storage and transportation. |

SECTION 11: Toxicological information

Information on toxicological effects

| | | |
|-----------------------|---|---|
| <u>Acute toxicity</u> | : | Polypropylene: No data available. Calcium carbonates: LD ₅₀ Oral (rats): > 2000 mg/kg. LD ₅₀ Dermal (rats): > 2000 mg/kg. LC ₅₀ Inhalation (rats, 4h): > 3 mg/L. |
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| | Polyethylene: LD ₅₀ Oral (rats): No data available. LD ₅₀ Dermal (rats): No data available. LC ₅₀ Inhalation (rats, 4h): > 57 mg/L. |
| | Titanium dioxide: LD ₅₀ Oral (rats): > 2000 mg/kg. LD ₅₀ Dermal (rats): No data available. LC ₅₀ Inhalation (rats, 4h): 3.43 mg/L. |
| <u>Skin corrosion/irritation</u> | : Polypropylene: No data available. Calcium carbonates: Not irritating to rabbit skin. Polyethylene: No data available. Titanium dioxide: Not irritating to rabbit skin. |
| <u>Serious eye damage/irritation</u> | : Polypropylene: No data available. Calcium carbonates: Not irritating to the eyes of rabbits. Polyethylene: No data available. Titanium dioxide: Not irritating to the eyes of rabbits. |
| <u>Respiratory sensitization</u> | : No data available. |
| <u>Skin sensitization</u> | : Polypropylene: No data available. Calcium carbonates: Not sensitizing to guinea pig skin. Polyethylene: No data available. Titanium dioxide: Not sensitizing to guinea pig skin. |
| <u>Germ cell mutagenicity</u> | : Polypropylene: No data available. Calcium carbonates: According to an <i>in vitro</i> genetic mutation study in bacteria and an <i>in vitro</i> genetic mutation study in mammalian cells, the substance is not mutagenic. Polyethylene: No data available. Titanium dioxide: Not mutagenic, according to bacterial reverse mutation assays, <i>in vitro</i> genetic mutation and clastogenicity tests, as well as <i>in vivo</i> . |
| <u>Carcinogenicity</u> | : No data available. |
| <u>Reproductive toxicity</u> | : No data available. |
| <u>Specific Target Organ Toxicity – Single exposure</u> | : No data available. |
| <u>Specific Target Organ Toxicity – Repeated exposure</u> | : No data available. |
| <u>Aspiration hazard</u> | : No data available. |

Most important symptoms and effects, acute or delayed

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| <u>Main symptoms</u> | : Ingestion of the product can cause general symptoms such as nausea, vomiting, abdominal pain and discomfort. |
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SECTION 12: Ecological information

Ecotoxicity

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|---|---|
| <u>Hazardous to Aquatic Environment – Acute</u> | : Polypropylene: No data available. Calcium carbonates: Acute toxicity to fish (<i>Oncorhynchus mykiss</i>): LC ₅₀ (96h): > 100 mg/L. Acute toxicity to microcrustaceans (<i>Daphnia magna</i>): EC ₅₀ (48h): > 100 mg/L. Acute toxicity to algae: EC _{r50} (72h): > 42 mg/L. Polyethylene: Acute toxicity to microcrustaceans (<i>Daphnia magna</i>): CE ₅₀ (48h): 62.48 mg/L. Acute toxicity to algae: EC _{r50} (72h): 30.3 mg/L. Titanium dioxide: Acute toxicity to fish (<i>Pimephales promelas</i>): CL ₅₀ (96h): 1000 mg/L. |
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| | | |
|---|---|--|
| <u>Hazardous to Aquatic Environment – Chronic</u> | : | Polypropylene: No data available. Calcium carbonates: No data available. Polyethylene: Chronic toxicity to algae: NOEC (72h): 7.07 mg/L. Titanium dioxide: No data available. |
|---|---|--|

Persistence/Degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

| | | |
|--|---|--|
| <u>Recommended methods for final disposal</u> | : | Do not reuse empty packaging. They may contain remnants of the product and should be kept closed and sent for appropriate disposal, through selective separation according to the type of packaging. Observe specific State and Municipal legislation. Consult the specific State and Municipal Agency. Consult the State or Municipal Environment Agency. |
| <u>Waste water disposal recommendations</u> | : | No data available. |
| <u>Product/packaging arrangement recommendations</u> | : | No data available. |
| <u>Additional information</u> | : | No data available. |

SECTION 14: Transport information

National and international regulations

NOT COVERED BY THE CURRENT RESOLUTION ON THE TRANSPORTATION OF DANGEROUS GOODS BY AIR, WATER AND LAND.

Other information's

No data available.

SECTION 15: Regulatory informations

| | | |
|------------------------------------|---|---|
| <u>Brazilian local regulations</u> | : | Standard ABNT NBR 14725 Resolution 5998 – ANTT |
| <u>Regulatory reference</u> | : | Resolution 6016 – ANTT Resolution 6056 – ANTT IMDG CODE IATA |

SECTION 16: Other informations

"This SDS was prepared by TOXICLIN® Serviços Médicos 6964, from data provided by INNOVA. This SDS information represents the current data and accurately reflects our best knowledge for the proper handling of this product in accordance with the specifications on the label and package leaflet. Any other uses of the product other than those recommended are the responsibility of the user."

| | | |
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| Acronyms: | : | ABNT – Associação Brasileira de Normas Técnicas ACGIH – American Conference of Governmental Industrial Hygienists ANTT – Agência Nacional de Transporte Terrestre BEI – Biological Exposure Index CAS – Chemical Abstracts Service CNS – Central Nervous System CL₅₀ – Lethal concentration 50% CE₅₀ – Effective concentration 50% CE_{r50} – Effective concentration for 50% growth inhibition DL₅₀ – Lethal dose 50% IARC – International Agency for Research on Cancer IATA – International Air Transport Association ICAO – International Civil Aviation Organization IMDG – International Maritime Dangerous Goods Code IMO – International Maritime Organization Kow – Partition coefficient n-octanol/water Log Kow – Log of the n-octanol/water partition coefficient MT – Ministério dos Transportes |
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NBR – Brazilian Standard
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration (concentração de efeito não observado)
NTP – National Toxicology Program
ONU – Organização das Nações Unidas
OSHA – Occupational Safety & Health Administration
PEL – Permissible Exposure Limit
PPE – Personal protective equipment
REL – Recommended Exposure Limit
SDS – Safety Data Sheet
TLV – Threshold Limit Value
TWA – Time Weighted Average
UN – United Nations

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The regulations referred to above are those in effect on the day this document was updated. The regulations for transporting dangerous products and ABNT standards have periodic reviews and updates where it is important to follow up to verify the updating of documents.