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|---|---|---------|----------|
|  | MATERIAL SAFETY DATA SHEET - MSDS - POLYCARBONATE (PC) TRACK-ETCHED MEMBRANE | MSDS001 | |
| | | Version | 06 |
| | | Date | 01/10/18 |
| | | Page | 1/6 |

| | |
|--|---|
| SECTION 1 : COMPANY INFORMATION | 2 |
| MANUFACTURER / DISTRIBUTOR | 2 |
| MSDS MANAGER | 2 |
| SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENTS | 2 |
| SECTION 3 : HAZARD IDENTIFICATION / EMERGENCY OVERVIEW | 2 |
| APPEARANCE | 2 |
| CLASSIFICATION | 2 |
| ADVERSE HUMAN HEALTH EFFECTS | 2 |
| TARGET ORGANS | 2 |
| MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE | 2 |
| SECTION 4 : FIRST AID MEASURES | 2 |
| CONTACT WITH EYES | 3 |
| INGESTION | 3 |
| INHALATION | 3 |
| SKIN CONTACT | 3 |
| SECTION 5 : FIRE FIGHTING MEASURES | 3 |
| SUITABLE EXTINGUISHING MEDIA | 3 |
| SPECIFIC HAZARDS WITH REGARD TO FIRE-FIGHTING MEASURES | 3 |
| SPECIFIC FIRE-FIGHTING MEASURES | 3 |
| SPECIFIC FIRE-FIGHTING MEASURES | 3 |
| SECTION 6 : ACCIDENTAL RELEASE MEASURES | 3 |
| PERSONAL PRECAUTIONS | 4 |
| SMALL AND LARGE SPILLS | 4 |
| ADVERSE ENVIRONMENTAL AND PHYSIOCHEMICAL EFFECTS | 4 |
| CLEAN UP MEASURES | 4 |
| SECTION 7 : HANDLING AND STORAGE | 4 |
| HANDLING | 4 |
| STORAGE | 4 |
| SECTION 8 : EXPOSURE CONTROL AND PERSONAL PROTECTION | 4 |
| ENGINEERING MEASURES | 4 |
| PERSONAL PROTECTIVE EQUIPMENT | 4 |
| SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES | 5 |
| SECTION 10 : STABILITY AND REACTIVITY | 5 |
| STABILITY AND REACTIVITY | 5 |
| INCOMPATIBILITY | 5 |
| DECOMPOSITION PRODUCTS | 5 |
| CONDITIONS TO AVOID | 5 |
| SECTION 11 : TOXICOLOGICAL INFORMATION | 5 |
| SECTION 12 : ECOLOGICAL INFORMATION | 6 |
| SECTION 13 : DISPOSAL INFORMATION | 6 |
| SECTION 14 : TRANSPORTATION INFORMATION | 6 |
| SECTION 15 : LOCAL REGULATIONS | 6 |
| SECTION 16 : ADDITIONAL INFORMATION | 6 |

| | | | |
|---|---|---------|----------|
|  | MATERIAL SAFETY DATA SHEET - MSDS - POLYCARBONATE (PC) TRACK-ETCHED MEMBRANE | MSDS001 | |
| | | Version | 06 |
| | | Date | 01/10/18 |
| | | Page | 2/6 |

SECTION 1 : COMPANY INFORMATION

MANUFACTURER / DISTRIBUTOR

it4ip SA **ion track technology for innovative products**
 Address: avenue Jean-Etienne Lenoir, 1 – 1348 Louvain-la-Neuve - Belgium
 Tel: +32 (0)10 226114
 Mail: contact@it4ip.be

MSDS MANAGER

Manager: Quality Manager

SECTION 2 : COMPOSITION / INFORMATION ON INGREDIENTS

Trade name: ipPORE™ Track Etched Membrane
 Generic name: Polycarbonate (PC) Track Etched Membrane
 Other trade name: ipBLACK™ Track Etched Membrane
 ipCELLCULTURE™ Track Etched Membrane
 Chemical name: Bisphenol-A Polycarbonate
 Chemical formula: $(C_{16}H_{14}O_3)_n$
 CAS N°: 25037-45-0
 % weight > 99 %
 Other < 1%; not known to contain toxic chemicals
 EINECS unlisted

SECTION 3 : HAZARD IDENTIFICATION / EMERGENCY OVERVIEW

APPEARANCE

Translucent (white or black) or transparent solid porous film.

CLASSIFICATION

This product is not classified as dangerous according to directive 1999/45/EC.

ADVERSE HUMAN HEALTH EFFECTS

Repeated or prolonged skin contact may cause slight skin irritation.


TARGET ORGANS

None determined.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

None found.

SECTION 4 : FIRST AID MEASURES

| | | | | |
|---|-----------------------------------|--|---------|----------|
|  | MATERIAL SAFETY DATA SHEET | | MSDS001 | |
| | - MSDS - | | Version | 06 |
| | POLYCARBONATE (PC) | | Date | 01/10/18 |
| | TRACK-ETCHED MEMBRANE | | Page | 3/6 |

CONTACT WITH EYES

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice; have the victim remove contact lenses if he is wearing them and continue rinsing.

Eye injury could result from physical impact; get medical attention immediately.

INGESTION

This material is not expected to present an ingestion hazard in the form and quantities present in a workplace setting. However, if ingestion occurs, induce vomit and seek medical advice.

INHALATION

This product is not considered to represent an inhalation hazard.

Move the victim to the fresh air when inhales the gas decomposed from molten polymer or burning; medical check if still feels bad.

SKIN CONTACT

Repeated or prolonged contact may cause dry or irritated skin.

Cool down affected area immediately with plenty of water if contact the molten polymer; do not remove the resin if sticking to the skin and seek medical advice.

SECTION 5 : FIRE FIGHTING MEASURES

Polycarbonate Track Etched Membrane can be combusted by remaining in contact with flame.

During processing, film may pick up a strong static charge; avoid discharge into dust or solvent laden air as a flash fire or explosion may result.

SUITABLE EXTINGUISHING MEDIA

Water-spray, water-fog, water-stream, CO₂, dry-chemical, foam, earth or sand, and remove from source of flame.

No unsuitable extinguishing media found.

SPECIFIC HAZARDS WITH REGARD TO FIRE-FIGHTING MEASURES

During a fire, irritating and highly toxic gases and fumes (carbon dioxide, carbon monoxide, organic acids, aldehydes, alcohols) may be generated by thermal decomposition and combustion.


SPECIFIC FIRE-FIGHTING MEASURES

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

SPECIFIC FIRE-FIGHTING MEASURES

Evacuate non-essential personnel to safe area.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

| | | | |
|---|---|---------|----------|
|  | MATERIAL SAFETY DATA SHEET - MSDS - POLYCARBONATE (PC) TRACK-ETCHED MEMBRANE | MSDS001 | |
| | | Version | 06 |
| | | Date | 01/10/18 |
| | | Page | 4/6 |

PERSONAL PRECAUTIONS

Wear proper protective equipment.

SMALL AND LARGE SPILLS

Collect material into suitable, covered container for disposal; unused membranes may be disposed as ordinary trash.

ADVERSE ENVIRONMENTAL AND PHYSIOCHEMICAL EFFECTS

The polymeric components of this product are not expected to biodegrade significantly in contact with soils or natural waters.

CLEAN UP MEASURES

The consolidated nature of the product allows spilled product to be manually collected and placed in a container for proper disposal.

SECTION 7 : HANDLING AND STORAGE

HANDLING

Avoid rough handling or dropping to maintain product integrity and cleanliness.
Take precautionary measures against static discharges.

STORAGE

Store in dark and dry location at temperature from 5°C (41°F) to 35°C (95°F).
Keep away from sources of ignition – no smoking.
No specific container is designated.

SECTION 8 : EXPOSURE CONTROL AND PERSONAL PROTECTION

ENGINEERING MEASURES

Use static eliminator against static charge


PERSONAL PROTECTIVE EQUIPMENT

Respiratory protection: No specific breathing apparatus is typically needed; nature of fluids process may nevertheless dictate the use of respiratory protection.

Ventilation: General ventilation is adequate for most applications.
Process involving material heating may require exhaust ventilation to keep the concentration of decomposition products below applicable exposure limits.

Eye protection: Safety glasses with side shields are adequate for normal use of this product.

Skin protection: Wear appropriate protective gloves to prevent skin exposure.

| | | | |
|---|---|---------|----------|
|  | MATERIAL SAFETY DATA SHEET - MSDS - POLYCARBONATE (PC) TRACK-ETCHED MEMBRANE | MSDS001 | |
| | | Version | 06 |
| | | Date | 01/10/18 |
| | | Page | 5/6 |

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

Appearance: solid film (porous)
 Color: translucent (white or black) or transparent
 Odor: Odorless
 Melting point: 220°C (428°F)
 Flash point: 226°C (440°F)
 Ignition temperature: 580°C (1070°F) - estimation
 Explosion: none
 Vapor pressure: none
 Density: 1.2 g/cm³
 Solubility: insoluble in water

SECTION 10 : STABILITY AND REACTIVITY

STABILITY AND REACTIVITY

This product is considered as a stable material under normal storage and handling conditions.

INCOMPATIBILITY

Hydrolyzed with bases.

DECOMPOSITION PRODUCTS

Not applicable at normal storage conditions.


Toxic gases and fumes (carbon dioxide, carbon monoxide, organic acids, aldehydes, alcohols) may be generated by thermal decomposition.

CONDITIONS TO AVOID

Elevated temperatures (>225 °C) release flammable vapors.

SECTION 11 : TOXICOLOGICAL INFORMATION

Inhalation: this product does not pose an inhalation health hazard.
 Ingestion: this product does not pose an ingestion health hazard (acute oral estimated to be > 5.0g/kg)
 Skin contact: this product does not pose a skin health hazard.
 Eye contact: this product does not pose an eye injury hazard.
 Carcinogenicity: none.
 Chronic toxicity: no adverse health effects are expected from prolonged or repeated exposure to this product.
 Toxicology data: Bisphenol-A polycarbonate or Poly(oxy-carbonyloxy-1,4-phenylene(1-methylethylidene)-1,4-phenylene) Bisphenol-A polycarbonate RTECS# TR1580150
 LD50, oral, rat >10 gm/kg - LD50, oral, mouse >10 gm/kg

| | | | |
|---|---|---------|----------|
|  | MATERIAL SAFETY DATA SHEET - MSDS - POLYCARBONATE (PC) TRACK-ETCHED MEMBRANE | MSDS001 | |
| | | Version | 06 |
| | | Date | 01/10/18 |
| | | Page | 6/6 |

SECTION 12 : ECOLOGICAL INFORMATION

Biotransportability: none

Biodegradability: this product persists in the soil.

Bioaccumulation: none

Ecological and fish toxicity: none; toxicity is expected to be low based on insolubility in water.

SECTION 13 : DISPOSAL INFORMATION

To follow local regulations regarding disposal.

European Union: Once exhausted, this membrane filter should be considered according to the European Waste catalogue (European commission decision of 03/05/01 modifying directives 94/3/CE and 75/442/CE) as part of the following categories : when used to filter non-dangerous substances : 20 01 39, separately collected fractions, plastics; other uses involving dangerous substances : consult the European Waste Catalogue for specific classifications.

United States : PC is not a US Environmental Protection Agency RCRA Hazardous Waste. Transport and dispose of waste membrane in accordance with all federal, state and local regulations.

SECTION 14 : TRANSPORTATION INFORMATION

Transportation must be in accordance with applicable federal, state, provincial and local regulations.

Specific safety measures and conditions on transport: keep at dry place to prevent from carton box crushes by wetting; do not give a shock.

SECTION 15 : LOCAL REGULATIONS

Ensure this material in compliance with federal requirements and ensure conformity to local regulations. (United States toxic substances control act (TSCA): in accordance with TSCA inventory requirements for commercial purposes).

SECTION 16 : ADDITIONAL INFORMATION

Abbreviations used :

ALD Approximate Lethal Dose

LD50 Lethal Dose 50% is the dose of a chemical which kills 50% of a sample population.

RCRA Resource Conservation and Recovery Act

TSCA Toxic Substances Control Act

This safety data sheet has been prepared to comply with the requirements of European Union Directive 2001/58/EC and ANSI Z400.1-1998.

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