



# Material Safety Data Sheet



## Section 1: Product and company Identification

Product Name	ARYAPET POLYESTER FILM	
Manufacturer	JBF RAK LLC	JBF BAHRAIN SPC
Address	Po Box : 6574 Al Jazeera , Al Hamra Ras AL Khaimah UAE	Building: 461, Road: 1508 Block: 115, P.O.Box:50397 Al Hidd, BIIP Salman Industrial City Kingdom Of Bahrain
Product Use	Industrial use	

## Section 2: Ingredients

ARYAPET polyester film is made from Co extrusion layers may be present various Fillers or additives used to modify the physical Appearance and/or surface properties of the various film , The following fillers and Additives are used in different grade of Film

**Product: ARYAPET Transparent, Haze, Matte Polyester film (A1\*\*, A2\*\*, A3\*\*, A4\*\*, A5\*\*)**

Ingredients	CAS Number	%
Polyethylene Terephthalate	25038-59-9	99 – 100
Silica	7631-86-9	<1

**Product: ARYAPET Milky white polyester film A6\*\*(A600, A610, A620, A627, A643, A660 etc)**

Ingredients	CAS Number	%
Polyethylene Terephthalate	25038-59-9	79 – 100
Silica	7631-86-9	<1
Titanium Di oxide	13463-67-7	<20

**Product: ARYAPET Opaque white Polyester film A7\*\* (A700, A710, A714, A731 etc)**

Ingredients	CAS Number	%
Polyethylene Terephthalate	25038-59-9	79 – 100
Silica	7631-86-9	<1
Barium sulphate	7727-43-7	<20

**Product : ARYAPET Metallised Polyester film AM\*\*\* & AZ\*\*\***

Ingredients	CAS Number	%
Polyethylene Terephthalate	25038-59-9	98 – 100
Silica	7631-86-9	<1
Aluminum	7429-90-5	<1



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**Product: ARYAPET Alox & Top Coated Polyester film AX\*\*\*, AC\*\*\*, AB\*\*\*, AQ\*\*\***

Ingredients	CAS Number	%
Polyethylene Terephthalate	25038-59-9	98 – 100
Silica	7631-86-9	<1
Aluminum oxide	1344-28-1	<1

## Section 3: Hazards Identification

Odor : PET is odorless

General Physical Form : Film / Sheet

Immediate health, physical, and environmental hazards: Unlikely to cause harmful effects under normal condition of handling and use.

### 3.1 OCCUPATIONAL EXPOSURE LIMITS

The following values apply to nuisance dust, which may be formed during cold processing (e.g., cutting, grinding, stamping).

- Total dust : 10 mg/m<sup>3</sup> (8 hr TWA)
- Respiratory dust : 5 mg/m<sup>3</sup> (8 hr TWA)

### 3.2 POTENTIAL HEALTH EFFECTS

- **Eye Contact:** Eye contact is not expected to occur during normal use of the product.
- **Skin Contact:** Contact with the skin during product use is not expected to result in significant irritation.
- **Ingestion:** Unlikely to be required but if necessary, treat symptomatically.

## Section 4: First Aid Measures

### 4.1 FIRST AID PROCEDURES

Only normally needed for thermal burns and following inhalation of smoke from burning material. Treat in same way as other normal burns and wood smoke inhalation.

- **Eye Contact:** Irrigate with eyewash solution or clean by water holding eyelid apart
- **Skin Contact:** If symptoms develop, obtain medical attention
- **Inhalation:** Remove patient from exposure.
- **Ingestion:** Unlikely to be required but if necessary treat symptomatically



## Section 5: Fire Fighting Measures

### 5.1 FLAMMABLE PROPERTIES

- Auto ignition temperature : 480° C – ASTM 10929-68
- Flash Point: 440° C – ASTM 09129-68
- Flammable Limits – LEL : No Data Available
- Flammable Limits – UEL : No Data Available

### 5.2 EXTINGUISHING MEDIA

Normal Extinguishing media

### 5.3 PROTECTION OF FIRE FIGHTERS

- Special Fire Fighting Procedures: Water may be used to blanket the fire.
- Unusual Fire and Explosion Hazards: Combustible but not readily ignited. This film will shrink away from source of flame. Persistent application of a flame will ignite the material. Burning is accompanied by melting and dripping which may cause the fire to spread. Combustion will evolve irritant vapors. At complete combustion, the major products formed are carbon dioxide and water. Some of the products of decomposition will also be present but at a concentration considerably less than carbon dioxide and water. During incomplete combustion a range of products will be formed but mainly carbon dioxide, water and carbon monoxide.

## Section 6: Spillage/ Accidental Release Measures

Scrap film generated through processing e.g. Slitting / Shredding should be swept up and disposed off in drums or plastic bags.

## Section 7: Handling and Storage

### 7.1 HANDLING

Thick gauges of film have very sharp edges, which can easily cause cuts.

### 7.2 STORAGE

ARYA PET need to be stocked in a closed warehouse & should not be exposed to direct sun light or light sources. Avoid extreme of humidity and heat. It is recommended to store below 40°C in dry places in original packing.



## Section 8: Exposure controls / Personal Protection

### 8.1 ENGINEERING CONTROLS / PROCESS HAZARDS

- **STATIC**

In most processes in which there is movement of film (of any kind) over metal or other rollers, surface electrical charges develop on the film. Static charges should be eliminated or reduced as much as possible, since they provide a source of ignition for flammable vapors and gases or may give electrical shock to operators. Use either passive or active static eliminators to reduce the charges.

- **REELING**

Machine design and work practices should be organized to remove the danger of trapping parts of the body, or clothing, in reeled materials and between the film and machinery parts.

- **DUSTS**

Operations, which produce dusts, (e.g., stamping, tape slitting, cutting, and grinding) should be controlled so that the appropriate standard for dusts is not exceeded.

Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it.

- **HEATING DURING PROCESSING**

Extra care should be taken to prevent burns from contact with hot material.

All polymers degrade to some extent at their processing temperature, an effect which increases with increasing temperature.

PET film has a relatively high upper melting point of 255-260 deg C. prior to this temperature, film shrinkage will occur - the degree of shrinkage being time / temperature related.

The exact quantity and nature of the degradation products varies with temperature, oxygen supply and process conditions. It is therefore, impossible to be precise about which substances may be evolved. However, it is only the minor components, which vary substantially. Appropriate control measures, such as ventilation, should be applied.



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### 8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### 8.2.1 Eye/Face Protection

Wear suitable eye protection when using the material in cold process (e.g. cutting, stamping, grinding)

#### 8.2.2 Skin Protection

Wear suitable gloves to avoid cuts from sharp edges of film.

#### 8.2.3 Respiratory Protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection.

#### 8.2.4 Prevention of Swallowing

Not an expected route of exposure

### 8.3 Exposure Guidelines

Not established.

## Section 9: Physical & Chemical Properties

Upper melt temperature (Deg C)	: Min 250 BY D.S.C.
Specific heat	: 1.34 KJ/Kg @ 25°C
Thermal conductivity	: 0.14 W/mk
Heat of combustion	: 23.5 MJ/Kg
Limiting oxygen index	: 21 ASTM D863
Density (gm/cc)	: 1.39-1.42
Flash point (Deg C)	: 440
	ASTM 09129-68
	PET film is one of the slower burning films.
Minimum ignition temperature.(Deg C)	: 480 ASTM 10929-68
Decomposition temperature. (Deg C)	: >260
Solubility in Water	: Insoluble

## Section 10: Stability and Reactivity

Hazardous decomposition: Above the decomposition temperature the major volatiles will be terephthalic acid, Carbon dioxide, carbon monoxide and small molecular weight alcohols / Aldehydes.

Hazardous Reactions : Not Known, Chemically inert



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### Section 11: Toxicological Information

Inhalation	: Combustion products may irritant.
Skin contact	: No evidence of irritant effects from normal handling use. Sharp edges may cause cuts.
Eye contact	: Sharp off-cuts may cause eye damage.
Ingestion	: Not applicable.
Long Term Exposure	: This material has been in use for many years with no evidence of adverse effects.

### Section 12: Ecological Information

Will slowly degrade with exposure to UV light. Adverse effects would not be expected.

### Section 13: Disposal Considerations

Waste material should be burned in a smokeless incinerator capable of high temperatures and long residence times, to enable complete combustion. To achieve this, the incinerator must have an after burner, which maintains the gases at a suitable temperature for 3 or 4 seconds.

### Section 14: Transport Information

Land Transport	: Not classified as Hazardous goods under transport Regulation
Sea Transport	: Not classified as Hazardous goods under transport Regulation
Air Transport	: Not classified as Hazardous goods under transport Regulation

### Section 15: Regulatory Information

USER	: Not Classified as Hazardous to Users
RCRA	: Arya PET Polyester film is not Hazardous can be disposed in the landfills and can be Incinerated in Compliance with federal regulation; the unused product is not Hazardous if discarded.
TSCA	: Arya PET Polyester films are in compliance with the TSCA inventory requirements For commercial purpose
CERCLA	: Arya PET polyester films are safe to be disposed of. It does not cause any Pollution upon disposal of Uncontrolled and abandoned waste
SARA Regulation Section 313 and 40 CFR 372	: This product does not contain any chemicals Subject to the reporting requirement of SARA
Clean Air Act Status	: This Product does not contain, and is not manufactured with ozone depleting Chemical as defined in 58 FR 8136, February 11, 1993 (Final Rule)



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### State Regulations (U.S.)

**CONEG** : Arya PET polyester films are compliant with CONEG Regulations, the sum of the Concentrations of Cadmium, Chromium, Lead and Mercury does not exceed 100 PPM. None of these metals is used as an ingredient or processing aid.

**California**

**Proposition 65 Status** : This product does not contain substances that require a warning pursuant to Proposition 65.

### Section 16: Other Information

PET film is free from Cadmium, Hexavalent Chromium, Lead, Mercury, and PBB & PBDE, hence it is RoHS compliant