



Flex Films SAFETY DATA SHEET

This Safety Data Sheet is in accordance with Regulation Annex I, Commission Regulation 453/2010. Polyester film is an article of commerce and is therefore not subject to the requirement of an MSDS. However, the information in this document is supplied for customer convenience as a conglomerate between Flex Films (USA) Inc. and Flex Americas, S.A. de C.V.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Polyethyleneterephthalate (PET) film

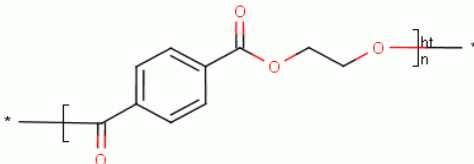
CAS Number: 25038-59-9

REACH Registration Number: Not applicable

Trade Name: FLEXPET™, FLEXMETPROTECT™ and FLEXALOXPROTECT™

Product Use: Flexible packaging, decorative, industrial, food packaging, building protection, cosmetic packaging, electrical insulation, and other applications.

Structural Formula:



Company:

Flex Film (USA) Inc.
1221 North Black Branch Road
Elizabethtown, KY 42701

Flex Americas, S.A. de C.V.
Boulevard de los Rios 5680 Zona Puerto Industrial
Altamira, Tamaulipas Mexico C.P. 89603

For more information please call:

Monday-Friday 8:00am-5:00pm EST **1-855-885-3593 (USA) / 52-833-260-8100 (MÉXICO)**

2. INGREDIENT AND HAZARD IDENTIFICATION

2a. FLEXPET™

Ingredient Name:	CAS Number:	EC Number:	Weight:
Diantimony trioxide	1309-64-4	215-175-0	.04%
Orthophosphoric acid	7664-38-2	231-633-2	.03%
Silicon Dioxide	7631-86-9	231-545-4	Max .40%
Polyethyleneterephthalate	25038-59-9	N/A	99.35 – 99.75%

2b. FLEXMETPROTECT™

Ingredient Name:	CAS Number:	EC Number:	Weight:
Diantimony trioxide	1309-64-4	215-175-0	.04%

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Orthophosphoric acid	7664-38-2	231-633-2	.03%
Silicon Dioxide	7631-86-9	231-545-4	Max .40%
Polyethyleneterephthalate	25038-59-9	N/A	99.35 – 99.75%
Aluminum	7429-90-5	231-072-3	a thin layer up to 300 Å

2c. FLEXALOXTPROTECT™

Ingredient Name:	CAS Number:	EC Number:	Weight:
Diantimony trioxide	1309-64-4	215-175-0	.04%
Orthophosphoric acid	7664-38-2	231-633-2	.03%
Silicon Dioxide	7631-86-9	231-545-4	Max .40%
Polyethyleneterephthalate	25038-59-9	N/A	99.35 – 99.75%
Aluminum Oxide	134-28-1	215-691-6	a thin layer up to 300 Å

Trace impurities and additional material names not listed above may also appear in Section 15 towards the end of the SDS. These materials may be listed for local "Right-to-know" compliance and for other reasons.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW No classification is necessary. This material does not have hazardous properties.

APPEARANCE AND ODOR

Physical State: Solid
Color: Clear or Metallized
Appearance: Glossy
Odor: Odorless

CLASSIFICATION PER REGULATION:

EC No. 1272/2008 (CLP) and GHS This substance is not dangerous.
Directive 67/548/EEC. This substance is not dangerous.

HMIS® rating involves data interpretation that may vary from company to company. There are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in the SDS must be considered.

4. FIRST AID MEASURES

SKIN
If skin becomes exposed to hot, molten material; rinse affected areas thoroughly with water and seek immediate medical treatment.
DO NOT ATTEMPT TO REMOVE CLOTHING OR ADHERING MATERIAL.



EYES

If eyes become exposed to hot, molten material; rinse area thoroughly with water and seek immediate medical treatment. If irritation occurs due to vapors or fumes; rinse with water and seek medical advice.

INHALATION

If fumes or vapors irritate the respiratory tract and breathing is difficult; move to fresh air and seek medical advice if there are persistent symptoms.

INGESTION

If swallowed, call a physician immediately. Only induce vomiting at the instructions of a physician. Never give anything by mouth to an unconscious person.

ADVICE TO PHYSICIANS

No specific instructions. Treat symptomatically.

5. FIRE FIGHTERS MEASURES

EXTINGUISHING MEDIA Use carbon dioxide, foam, Halon, or AFFF (aqueous film forming foam).

PROTECTIVE EQUIPMENT Firefighters, and others exposed, wear self-contained breathing apparatus.

SPECIAL HAZARDS Keep containers cool by spraying with water if exposed to fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS

May burn with an invisible flame. Fire hazard when exposed to heat, flame, or oxidizers. Vapors are heavier than air and may travel a considerable distance to an ignition source and flash back. Vapor mixtures are explosive.

SPECIAL FIRE FIGHTING PRECAUTIONS / INSTRUCTIONS

Wear self-contained breathing apparatus and protective clothing. Do not release run off from fire control methods to sewers or waterways. Keep fire exposed containers cool and reduce vapors with water spray.

Flash Point: 824°F (440°C)

Auto Ignition Temperature: 896°F (480°C)

Upper Flame Limit (volume % in air): Not determined

Lower Flame Limit (volume % in air): Not determined

Flame Propagation Rate (solids): Not applicable

OSHA Flammability Class: IB

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Use personal protective clothing.

EMERGENCY RESPONDERS

Handle the product using protective gloves and clothing. If material is exposed to flames, avoid contact with skin and inhalation of vapors or smoke. Refer to appropriate sections of this document for more details.

CLEAN UP METHOD

Handle the product using protective gloves and clothing. Pick up film to prevent a slipping hazard.



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Spills and releases may need to be reported to Federal and/or local authorities. See Section 15 regarding reporting requirements.

7. HANDLING AND STORAGE

NORMAL HANDLING

Always wear recommended personal protective equipment (PPE).

PRECAUTIONARY HANDLING

Handle in accordance with good industrial hygiene and safety practices. Keep the original wrapping on the film until it is used. In event the roll is partially used, the balance roll should be preserved on the standard packing with a sticker. Film rolls should be moved only with equipment designed for the purposed as film rolls and pallets are heavy. Film edges may be sharp. Edges may cause cuts or wounds, handle with care.

STORAGE RECOMMENDATIONS

Rolls should be stored in a closed space that is cool and dry. Ideal storage temperature is 75°F (23.8°C) with 50% relative humidity. It is recommended that films be used in a FIFO system, first in-first out. Shelf life for FLEXPET™ is nine (9) months from date of manufacturing. Shelf life for FLEXMETPROTECT™ is six (6) months from date of manufacturing. To prevent contamination, keep packages closed until ready to use.

Storage Temperature: Store at 75°F (23.8°C)

Reason: Quality

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

Use static controls. Static charges can build up and ignite dust or solvent laden atmospheres. There is a potential hazard for dust explosion. Use local ventilation systems to control fumes from hot processing.

SKIN PROTECTION

Wear protective gloves and clothing. If there is a potential to contact with hot, molten material; wear heat-resistant impervious clothing and footwear.

HAND PROTECTION

Wear protective gloves for good industrial practice.

EYE PROTECTION

Wear eye / face protection such as splash proof goggles or face shield.

RESPIRATORY PROTECTION

Avoid breathing dust, fumes, gas, mist, vapors, and sprays. Respirators are not needed for normal use. If airborne concentrations are expected to exceed exposure limits, approved respirators should be used in accordance with OSHA Respiratory Protection Standard CFR 1910.134.

WARNING! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

ADDITIONAL RECOMMENDATIONS

Prior to eating, drinking, or smoking, wash face and hands thoroughly with soap and water. Work clothing should then be laundered prior to reuse. Street clothing should be stored separately from work clothing and protective equipment. Work clothing and shoes should never be taken home.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Glossy

Physical State: Solid

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Molecular Weight:	Not applicable
Chemical Formula:	UVCB
Odor:	Odorless
Solubility in water (weight %):	Insoluble
pH:	Not applicable
Boiling Point:	Not applicable
Melting Point:	491-509°F (255-265°C) Co-polyester layers and coatings can melt at lower temperatures
Density:	1.3 – 1.4 gm/cm ³
Combustion:	The film burns along with flame. In case of non-contact with flame, film will shrink and extinguish on its own. Molten material may drip and ignite fire. Combustion will evolve irritant vapors.

STABILITY Stable under normal conditions of use up to 110°F (45°C)

CONDITIONS TO AVOID Strong acid and base may hydrolyze the film. Avoid contact with strong oxidizing agents. Do not heat to temperatures exceeding 445°F (235°C)

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS When heated to decomposition, PET will emit acrid smoke and irritating fumes.

IMCOMPATIBLE MATERIALS Acetaldehyde (CH₃CHO) is the dominant, volatile product that is formed during thermal degradation of PET.

OTHER HAZARDOUS REACTIONS No hazardous reaction are known under normal atmospheric conditions.

11. TOXICOLOGICAL INFORMATION

Toxicological information for these products are found under Section 3. Hazards Identification.

Toxicological information on the regulated components of this product are as follows:

LIKELY ROUTES OF EXPOSURE	Skin, Eyes, Oral
RESPIRATORY	None
INGESTION	Material is inert. There is no risk of ingestion under normal conditions.
LOCAL EFFECTS ON SKIN AND EYE	None expected under conditions. Hot, molten material may cause severe Burns. Small pieces and dust particles may irritate eyes.
ALLERGIC SENSITIZATION	None
GERM CELL MUTANGENICITY	None
GENOTOXICITY	None



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IARC No component of this product presents levels $\geq 0.1\%$ as probable, possible, or confirmed human carcinogens.

NIOSH:
IMMEDIATELY DANGEROUS TO LIFE OR HEALTH CONCENTRATION (IDLH) None

ORGAN TOXICITY None

OTHER INFORMATION The product toxicity information above has been estimated.

12. ECOLOGICAL INFORMATION

THIS PRODUCT IS NOT READILY BIODEGRADABLE OR COMPOSTABLE.

ECOTOXICITY:
ACUTE AQUATIC None

CHRONIC AQUATIC TOXICITY:
FRESHWATER None
MARINE WATERS None
SEDIMENT TOXICITY None

SOIL TOXICITY None

ADDITIONAL INFORMATION:
PURE CULTURE FOR FUNGI DEGRADATION After a three (3) week incubation, PET showed no growth. PET is not susceptible to fungi growth.

13. DISPOSAL CONSIDERATIONS

It is recommended that treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State, and Local regulations.

The most favorable course of action is to use an alternative chemical product with less inherent propensity for occupational exposure or environmental contamination. Recycle any unused portion of the material for the approved use or return it to the manufacturer / supplier, Flex films (USA) Inc. Ultimate disposal of the chemical must consider: the material's impact on air quality; potential migration in soil or water; effects on animal / aquatic / plant life and the conformance with environmental and public health regulations. This product should not be dumped, spilled, raised, or washed into sewers or public waterways.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

UN Number	Not applicable / not regulated
UN Proper Shipping Name	Not applicable / not regulated
US DOT Proper Shipping Name	Not applicable / not regulated
Hazard Class	Not applicable / not regulated
US DOT ID Number	Not applicable / not regulated
US DOT Packing Group	Not applicable / not regulated

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Transport Label required	Not applicable / not regulated
TRANSPORT CANADA Proper Shipping Name	Not applicable / not regulated
ICAO/IATA Proper Shipping Name	Not applicable / not regulated
IMO Proper Shipping Name	Not applicable / not regulated

15. REGULATORY INFORMATION

For additional information on shipping regulations affecting this material, contact the information number found in Section 1.

EU Regulations:

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 and CLP regulation. This material is not listed as a dangerous substance according to GHS. The substance is not intended to be released from article.

Chemical Safety Assessment:

A chemical safety assessment has been carried out for this substance/mixture by the supplier.

Global Harmonized System



GHS02 - Flammable

INVENTORY INFORMATION

United States (USA):

All components of this product are included on the TSCA Inventory in compliance with the Toxic Substance Control Act, 15 U.S.C. 2601 et seq.

Canada:

Components of this product have been reported to Environment Canada in accordance with Sections 66 and/or of the Canadian Environmental Protection Act (1999) and are included on the Domestic Substance List.

European Union (EU):

All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are polymers of which the components of which are in EINECS and is in compliance with Council Directive 67/548/EEC and its amendments.

Australia:

All components of this product are included in the Australian Inventory of Chemical Substances (AICS).

China:

All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory



Japan:

All components of this product are included on the Japanese (ENCE) inventory or are not required to be listed on the Japanese inventory.

Korea:

All components of this product are included on the Korean (ECL) inventory are not required to be listed on the Korean inventory.

Philippines:

All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

TOXIC CONTROL SUBSTANCE ACT (TSCA)

TSCA Inventory Status: All ingredients listed on the TSCA inventory.
 Other TSCA Issues: May be subject to export notification.

SARA TITLE III / CERCLA

“Reportable Quantities (RQs) and/or Threshold Planning Quantities (TPQs) exist for the following ingredients.

<u>Ingredient Name:</u>	<u>SARA/CERCLA RQ (lb.)</u>	<u>SARA EHS TPQ (lb.)</u>
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No ingredients listed in this section.

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [800-424-8802].

SECTION 311 HAZARD CLASS

SARA 313 Toxic Chemicals

The following ingredients are SARA 13 “Toxic Chemicals”. CAS numbers and weight percent are found in Section 2.

<u>Ingredient Name:</u>	<u>CAS Number</u>	<u>Comment</u>
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No ingredients listed in this section.

STATE RIGHT TO KNOW

In addition to the ingredients found in Section 2, the following are listed for state right-to-know purposes.

<u>Ingredient Name:</u>	<u>Weight %</u>	<u>Comment</u>
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No ingredients listed in this section.

ADDITIONAL REGULATORY INFORMATION

None

WHMIS CLASSIFICATION (CANADA)

Class B, Division 2
 Class D, Division 2a



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FOREIGN INVENTORY STATUS

16. OTHER INFORMATION

The information above is believed to be accurate and represents the best information currently available to Flex Films (USA) Inc and Flex Americas, S.A. deC.V. We make no warranty, expressed or implied, of merchantability with respect to such information. We assume no liability resulting from its use. We recommend you make your own investigation to determine the suitability of the information for your purposes. In no event shall Flex Films (USA) Inc and Flex Americas, S.A. deC.V. be liable for any claims, losses, or damages of any third party or for loss of profits or any special, indirect, incidental, consequential, or exemplary damages.

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