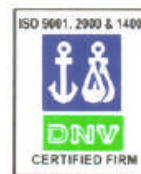




# UFLEX LIMITED

(Formerly known as Flex Industries Limited)

A-1, SECTOR - 60, GAUTAM BUDH NAGAR, NOIDA - 201 301 (U.P) INDIA  
PHONE : 0091-120-2580500, 3982121, 4002121  
FAX : 0091-120-2580003, 2580422, 2580152, 2580322



Ref: MSDS/MB/0801

Issue Date :20.08.08

## ( Material Safety Data Sheet - MSDS )

### 1.) Identification of the Product and Manufacturer

Product Details	
Trade Name:	FLEX METPROTECT™
Manufacturer Details	UFLEX LIMITED
Address:	A-1,SECTOR-60,NOIDA – 201301 (U.P), INDIA
Telephone:	+91 120-3982121, 3982535, 3982658
Fax:	+91 120-2580152, 2580511, 2580003

### 2.) Composition/Information on Ingredients

Component	Polypropylene > 99.0% ,Aluminium < 0.1%
Substance	
Chemical Name	Aluminium Metallized Polypropylene and its copolymer and terpolymer
Synonyms	Bi axially oriented Polypropylene (BOPP)
Chemical classification	Polyolefin
Formula	Propene Homo polymer, (C <sub>3</sub> H <sub>6</sub> ) <sub>n</sub> - (min.90%)
CAS NO.	9003-07-0 (Polypropylene) , 7429-90-5 (Aluminium)

### 3.)Hazard Identification

Inhalation:	If heated to 235 °C, the product may form vapors or fumes which may cause irritation to the respiratory tract.
Skin contact:	The contact with hot molten material may cause severe burns
Eye contact:	If heated to 235 °C, the product may form vapors or fumes which may cause irritation to the eyes.
Ingestion	Material is biologically inert.
Environmental Impact	Non biodegradable, non compostable
Physico-chemical hazards	The material is combustible if exposed to flames , handling of material may create electrical charges and spark which may be cause of ignition for other flammable material.

### 4.) First Aid Measures

Root of Exposure:	
Inhalation:	Fumes and vopours produced by heated or burnt material may be irritating for the repiratory track. Bring patient into fresh air,get medical advise if the symptoms continue.
Skin contact:	Exposure to hot molten material. In this case: Rinse with plenty of water. Do NOT remove clothing (risk of sticking to skin) or do not try removing adhering material.  Injured area should be treated as burns.  Seek medical advise immediately. However, use of protective gloves/clothing is good industrial practice
Eye contact:	Exposure to hot molten material. In this case: Rinse with plenty of water. Seek immediate special treatment at hospital or medical center in case of irritation caused by vapours or fumes wash with water and seek medical advise.



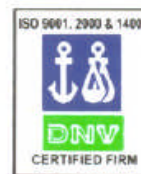
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## 5.) Fire-Fighting Measures

Fire Class Regulation	A type
Technical measures	Stop the fire spreading, call the Fire brigade immediately, evacuate non-essential personal. Protective clothings, goggles and self contained breathing equipment should be made available for fireman.
Suitable Extinguishing media:	Water mist only to cool the surface exposed to fire, carbon dioxide, foam, Halon, AFFF(Aquous film forming foam)
Not to be used	Do not use water jets for estinguishing fire,since they could help to spread the flames.
Hazardous combustion products:	Complete combustion with excess of oxygen foams : s carbon dioxide and water vapour.  Incomplete combustion gives, in addition, carbon monoxide, and vapours.
Special fire fighting instruction:	wear suitable Self-contained breathing equipment in case of risk of exposure to vapors or fumes.

## 6.) Accidental Release

Methods for cleaning/removal	Pick up mechanically. Dispose according to local and National regulations., Refer 8 and 13 regarding slippery behavior of PP film on floor.
Environmental	Keep out of drains and water sources.

## 7.) Handling and Storage

Handing	Keep away from ignition sources. Observe the general rules of industrial fire protection. Keep the film at room temp. 24hrs.prior to processing. Keep original wrapping on the film until it is used. In case the roll is partially used, the balance roll should be preserved on the standard packing with sticker. Film rolls should be moved only with equipment designed for the purpose as film rolls and pallets are heavy. Film edges are sharp and may cause cuts/wounds, handle with most care.
Storage:	Store in cool, dry place at an ambient temperature (preferably 25°C with Relative Humidity of 50%) in a closed shed.  Use FLEXMETPROTECT™ (METALLIZED BOPP FILM) film on FIFO system & it is advised to rotate the film stock. It is advised to consume the material within three months from the date of manufacturing. Keep packages closed to prevent contamination.

## 8.) Exposure Controls/Personal Protection

Exposure controls:	
Occupational Exposure control	Standard usage condition of material do not generate the dust particles.
Respiratory protection / ventilation	In case of risk of exposure to dust, vapour or fumes generated by thermal decomposition of the material ,it is recommended that a local exhaust system is placed above the converting equipment (hood) and the working area mu8st be properly ventilated.
Skin & Body & Eye protection	If contact with hot molten material is possible, wear heat insulating and chemical proof gloves and clothes and face shield and goggles for eyes
Other personal Protection	Slabs of film on the floor can be slippery. Exercise due care in areas where slippage can occur.



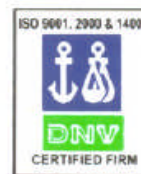
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## 9.) Physical and Chemical Properties

\* These are indicative values only and should not be regarded as product specification.

### General Information

Appearance	Flexible Plastic Film
Physical state at 20 °C	Solid
Colour:	Glossy, Silver plastic film
Odour:	Odourless
Important health ,safety and Environmental information	
Temperature Characteristics:	
Melting point	160 - 165 °C.
Flammability Characteristics:	
Flash point	350°C
Auto ignition temperature:	>380°C
Explosion Limit	Not applicable
Oxidizing Properties:	Not applicable
Solubility:	
In water at 20°C:	Practically insoluble.
In organic solvents at 20°C	Insoluble in common organic solvents.
Density	0.8 - 0.95 gm/cm <sup>3</sup>

## 10.) Stability and Reactivity

Stability:	Stable under normal conditions of use upto 45°C.
Hazardous reactions:	No hazardous reactions known under normal atmospheric conditions.
Condition to avoid	Do not heat to temperature exceeding 235 deg. C

## 11.) Toxicological Information

Acute toxicity	The product is harmless and biologically inert.
Specific effects	At the best of current knowledge, the material is not genotoxic, carcinogenetics or harmful for reproduction.

## 12.) Ecological information

Bio degradation	Material is not bio-degradable
Information on Ecological effects	Avoid dissamination in the Environment

## 13.) Disposal Information

Spill, leak or release	Pick up film to avoid a slipping hazard.
Waste disposal	Dispose in accordance with local regulations, Landfill is preferred. Forced draft incineration is an alternate or recycling



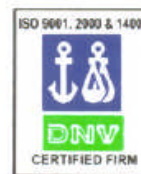
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## 14.) Transport Information

The date provide in this section is for information only please apply the appropriate regulations to properly classify your shipment for transportation.

Land: Rail/Road:	Not restricted
Sea:	Not restricted
Air:	Not restricted
Dispatch by mail:	Permitted

## 15.) Regulatory Information

Labeling in accordance with EEC/FDA

## 16.) Other Information

The information as mentioned above relates only to the specific material designated here in and does not relate to use in combination with any other material in our process.

AUTHORIZED SIGNATORY

FOR UFLEX LIMITED