



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
Material Safety Data Sheet

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"KAPTON" FORMABLE FILM JP
KAP00009 Revised 30-JUN-2007

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

Kapton is a registered trademark of DuPont.

Tradenames and Synonyms

FORMABLE FILM JP
"KAPTON" JP, JPB, JPC
"KAPTON" FWR
"KAPTON" TS

Company Identification

MANUFACTURER/DISTRIBUTOR
DuPont
"Kapton"/"Teflon" Customer Service
P.O. Box 89
Circleville, OH 43113

PHONE NUMBERS

Product Information : 1-800-237-4357
Transport Emergency : 1-800-424-9300
Medical Emergency : 1-800-441-3637

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
INERT POLYIMIDE FILM		100
JPC contains:		
ALUMINA	1344-28-1	0-35
JPB and JPC contain:		
CARBON BLACK	1333-86-4	0-30

Components (Remarks)

The specific identity of the polymer is withheld as a trade secret.

HAZARDS IDENTIFICATION

Potential Health Effects

Before using "Kapton" Polyimide Films, read the bulletin on safe handling and use.

POTENTIAL HEALTH EFFECTS

INHALATION: Not a probable route of exposure for film. Exposure to alumina or carbon black encapsulated in the polymer is not likely.

SKIN CONTACT: No test data for this product. Testing of similar products produced no irritation to mild irritation. Normal manufacturing use is not expected to be a problem, but handling these films may result in skin irritation in susceptible individuals.

EYE CONTACT: Not a probable route of exposure for film.

INGESTION: Not a probable route of exposure for film.

Carcinogenicity Information

The following components are listed by IARC, NTP, OSHA or ACGIH as carcinogens.

Material	IARC	NTP	OSHA	ACGIH
CARBON BLACK				2B

FIRST AID MEASURES

First Aid

INHALATION

Not a probable route of exposure for films.

SKIN CONTACT

Wash with soap and water after handling. If skin irritation develops, consult a physician.

EYE CONTACT

Flush eyes with water. Consult a physician if irritation persists.

INGESTION

Not a probable route of exposure for films.

FIRE FIGHTING MEASURES

Flammable Properties

Not a fire or explosion hazard.

The flammability characteristic of polyimide film is reported as "self-extinguishing".

"Kapton" will burn in an atmosphere of 100% oxygen. The major off-gases are carbon dioxide and carbon monoxide. "Kapton" chars but does not burn in air.

The processing of "Kapton" polyimide films can cause the generation of static charge. Precautions for static charges should also be taken when removing plastic films used as protective packaging for "Kapton".

Extinguishing Media

Use any available extinguishing media.

Fire Fighting Instructions

This material is not flammable. Use normal firefighting procedures for the area.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill Clean Up

Practice good housekeeping to prevent and eliminate slipping hazards.

HANDLING AND STORAGE

Handling (Personnel)

Wash thoroughly after handling.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Safe handling of "Kapton" polyimide films at high temperatures (above 200 degC) requires adequate ventilation. If small quantities of "Kapton" are involved, normal air circulation may be all that is needed in case of overheating. Whether or not existing ventilation is adequate at higher temperatures will depend on the combined factors of film quantity, temperature and exposure time.

Personal Protective Equipment

Safety glasses are recommended as good industrial practice.

Respirators are not needed for normal use.

Special protective clothing is not needed for normal use. Gloves are recommended as good industrial practice.

Exposure Guidelines

Applicable Exposure Limits

ALUMINA

PEL (OSHA) : 15 mg/m3, total dust, 8 Hr. TWA
5 mg/m3, respirable dust, 8 Hr. TWA
TLV (ACGIH) : Notice of Intended Changes (2007)
Withdraw Adopted Documentation and TLV;
See NIC Entry for Aluminum Metal and
Insoluble Compounds
AEL * (DuPont) : None Established

CARBON BLACK

PEL (OSHA) : 3.5 mg/m3, 8 Hr. TWA
TLV (ACGIH) : 3.5 mg/m3, 8 Hr. TWA, A4
AEL * (DuPont) : 0.5 mg/m3, 8 & 12 Hr.TWA, (Polynuclear
Aromatic Hydrocarbon Content <0.1%)
Includes Channel, Lamp, and Thermal
Black

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Solubility in Water : Insoluble
Form : Transparent film
Color : Amber-colored
Specific Gravity : >1.4

STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

DISPOSAL CONSIDERATIONS

Waste Disposal

Landfill or incinerate in compliance with federal, state and local regulations.

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : All components are listed on the TSCA inventory.

State Regulations (U.S.)

STATE RIGHT-TO-KNOW

No substances on the state hazardous substances list, for the states indicated below, are used in the manufacture of products on this Material Safety Data Sheet, with the exceptions indicated.

SUBSTANCES ON THE PENNSYLVANIA HAZARDOUS SUBSTANCES LIST PRESENT AT A CONCENTRATION OF 1 % OR MORE (0.01% FOR SPECIAL HAZARDOUS SUBSTANCES)- Carbon black; alumina

SUBSTANCES ON THE NEW JERSEY WORKPLACE HAZARDOUS SUBSTANCE LIST PRESENT AT A CONCENTRATION OF 1% OR MORE (0.1% FOR SUBSTANCES IDENTIFIED AS CARCINOGENS, MUTAGENS OR TERATOGENS)- Carbon black; alumina

OTHER INFORMATION

Additional Information

MEDICAL USE: CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications see DuPont CAUTION Bulletin No. H-50102.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : "Kapton" Customer Service

(Continued)

Address : DuPont
 : Circleville, OH
Telephone : 800-237-4357

Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS