



ThinFlex Corporation

No. 8, Luke 2nd.Rd.,
Luzhu Dist., Kaohsiung City, 821,
Taiwan, R.O.C.
(Kaohsiung Science Park)
Tel: +886-7-6955236 Fax: +886-7-6955539

SAFETY DATA SHEET

SDS DATE: 2018/01/18

THINFLEX- AR

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name

ThinFlex-AR

Manufacturer's Name & Address

ThinFlex Corporation
No. 8, Luke 2nd.Rd., Luzhu Dist.,
Kaohsiung City, 821, Taiwan, R.O.C.

Emergency Telephone Number

Tel: +886-7-6955236
Fax: +886-7-6955539

SECTION 2: HAZARDS IDENTIFICATION

Potential Health Effects

Eyes: Not a probable route of exposure for film.

Skin: No irritation is expected from handling film.

Ingestion: Not a probable route of exposure for film.

Inhalation: Not a probable route of exposure for product as shipped.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Material	Product Component	CAS No.	Percentage (%)
Polyimide Film	Dielectric Layer	-----	5.35~11.64
Copper Foil	Conductive Layer	7440-50-8	88.36~94.65

SECTION 4: FIRST AID MEASURES

Eye Contact: Flush eyes with water. Consult a physician if irritation persists.

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

Ingestion: Not a probable route of exposure for films.

Inhalation: No specific intervention is indicated as the compound is not likely to be hazardous by inhalation.



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SECTION 5: FIRE-FIGHTING MEASURES

Flammable Properties

Not a fire or explosion hazard. The flammability characteristic of polyimide film is reported as "self-extinguishing". Polyimide film chars but does not burn. However, polyimide film will burn in an atmosphere of 100% oxygen. The major off-gases are carbon dioxide and carbon monoxide.

The processing of 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 polyimide films.

Extinguishing Media

Use any available extinguishing media.

Fire Fighting Instructions

None required.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

Use appropriate personal protective equipment during clean-up.

Accidental Release Measures

Practice good housekeeping to prevent and eliminate slipping hazards.

SECTION 7: HANDLING AND STORAGE

Handling (Personnel)

Wash hands thoroughly after handling.

Storage

Store in a dry and cool place away from sunlight. Recommended storage conditions of below 25°C and below 70% humidity.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION



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Engineering Controls

Safe handling of polyimide films at high temperatures (above 200°C/ 392°F) requires adequate ventilation. If small quantities of polyimide film 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Roll
Color:	Metallic Copper
Odor:	Odorless
Solubility in Water:	Insoluble
Thermal Decomposition:	520°C

SECTION 10: STABILITY AND REACTIVITY

Chemical Stability

Stable at normal temperatures and storage conditions.

Incompatibility (Materials to Avoid):

None reasonably foreseeable.

Hazardous Decomposition or By-Products:

At temperatures above 400°C, the major off-gases of polyimide film are carbon monoxide and carbon dioxide. The quantity and composition of decomposition products will depend on the combined factors of film quantity, temperature and exposure time.

SECTION 11: TOXICOLOGICAL INFORMATION

Not classified as a toxic or hazardous material.



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SECTION 12: ECOLOGICAL INFORMATION

Aquatic Toxicity

Film is insoluble in water.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal

Incinerate or landfill in accordance with local laws and ordinances. Copper portions can be recycled.

SECTION 14: TRANSPORT INFORMATION

Road: Not a hazardous product.

Water / Air: Not a hazardous product.

SECTION 15: REGULATORY INFORMATION

None, since the product is not classified as hazardous.

SECTION 16: OTHER INFORMATION

Medical Use

CAUTION: Do not use in medical applications involving permanent implantation in the human body.

Disclaimer

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. This information is based upon technical data believed to be reliable, and is offered in good faith by the manufacturer. Users should perform additional tests to establish the suitability of any products for their intended applications. This Material Safety Data Sheet and the information herein are subject to revision as additional knowledge and experience is gained.