

# MATERIAL SAFETY DATA SHEET

# SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product Details

| Product Name             | MAGICAL FILM                    |
|--------------------------|---------------------------------|
| Trade Name               | MAGICAL FILM                    |
| Composition/ Approx. wt% | Polyethylene Terephthalate      |
|                          | Acrylic polymer                 |
|                          | Methyl Methacrylate             |
|                          | Dioxosilane                     |
| CAS No.                  | 25038-59-9                      |
|                          | 9011-14-7                       |
|                          | 80-62-6                         |
|                          | 7631-86-9                       |
| Use type                 | COATING · PRINTING · LAMINATING |

### 1.2 Company Identingation

| Supplier's Name  | MAGICAL FILM ENTERPRISE CO., LTD.   |
|------------------|---|
|                  | NO.36, LANE 378, SEC.2, YOUNGSING RD., WUQI<br>DIST., TAICHUNG CITY 435, TAIWAN |
| Telephone Number | 886-4-2638-0889   |
| FAX Number       | 886-4-2630-8298   |

### **SECTION 2:COMPOSITION/INFORMATION ON INGREDIENT**

| Main ingredients Polyethylene Terephthalate |
|---|
|---|

### **SECTION 3:PHYSICAL AND CHEMICAL PROPERTIES**

| Appearance | Solid   |
|------------|---------|
| Colour     | RAINBOW |



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| Odour                                     | Odourless             |
|---|-----------------------|
| Solubility (in water)                     | Insoluble             |
| Boiling Point                             | Not applicable        |
| Melting Point(°ℂ)                         | 220-250°C (428-482°F) |
| Vapour Pressure                           | Not applicable        |
| Percentage Volatiles                      | Not applicable        |
| Evaporation Rate                          | Not applicable        |
| Vapour Density                            | Not applicable        |
| Specific Gravity                          | 1.26~1.35             |
| Flash point(°C)                           | >355°C(>671°F)        |
| Autoignition temperature                  | >420°C                |
| Flammable limit(%)and other properties if | Not applicable        |

# SECTION 4:HAZARD IDENTIFICATION

| Health hazard      |   |
|--------------------|---|
| Inhalation         | Combustion products may be irritant.  |
| Skin contact       | No evidence of irritant effects from normal handling and                          |
|                    | 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 5:FIRST AID MEASURES**

| Unlikely to be required but, if necessary, treat symptomatically.         |
|---|
| Irrigate with eyewash solution or clean water, holding the eyelids apart. |



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| Skin contact        | If symptoms develop, obtain medical attention.          |
|---------------------|---|
| Inhalation          | Remove patient from exposure                            |
| Notes to physician: | Only normally needed for thermal burns and following    |
|                     | inhalation of smoke from burning material. Treat in the |
|                     | same way as other thermal burns and wood smoke          |
|                     | inhalation  |

# **SECTION 6:FIRE FIGHTING MEASURES**

| Extinguishing media        | Normal extinguishing media   |
|----------------------------|--|
| Fire fighting instruction: | Combustible but not readily ignited. Thin films(<23 micron) will shrink away from a heat source or 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  |
| Special Hazards            | 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. |
| (Eg.Explosion properties a | nd explosion hazards in the presence of various chemicals.)  |

# SECTION 7:ACCIDENTAL, RELEASE MEASURES

Scrap film generated through processing, eg, slitting/shredding, should be swept up and disposed of in drums or plastic bags.

# **SECTION 8: HANDLING AND STORAGE**

| HANDLING | Thick gauges of film have very sharp edges which can |
|----------|--|
|          | easily cause cuts.                                   |



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#### **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 educed as much as possible, since they provide a source of ignition for flammable vapours 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 organised 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(eg, 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

All polymers degrade to some extent at their processing temperature, an effect Which increases with increasing temperature. TALILIN film has a relatively high melting point of 255-260 deg C. Prior to this temperature, film shrinkage will occur-the degree of shrinkage being time/temperature

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. The major components are given in section 10. Appropriate control measures, such as ventilation, should be applied.

### Storage

Keep away from heat and sources of ignition.

Storage temperature: Ambient.

Exposure to extremes of heat and cold should be avoided. Avoid extremes of humidity.



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| Unlikely to cause harmful effects under normal conditions of handling and use. |  |
|--|--|
| The following values apply to nuisance dust which may be formed during cold    |  |
| processing (eg, cutting, grinding, stamping).                                  |  |
| a.Exposure Limit   | Total dust: 10mg/m3 (8hr TWA)  |
|  | Respiratory dust: 5mg/m3 (8hr TWA)   |
| b.Engineering measures   | UK EH40 OES  |
| c.Personal protection  | Wear suitable gloves to avoid cuts from the sharp edges of films > 125 micron thickness. Wear suitable eye protection when using the material in cold processes (eg, cutting, stamping, grinding). |

# **SECTION 10:STABILITY AND REACTIVITY**

| Stability                | Stable under normal conditions  |
|--------------------------|---------------------------------|
| Incompatibility          | Strong oxidizing agent          |
| (Materials to avoid)     |                                 |
| Combustion products      | Carbon dioxide, Carbon monoxide |
| Thermal decomposition    | Acetaldehyde, Ethylene          |
| Hazardous polymerization | Will not occur                  |

# **SECTION 11:TOXICOLOGICAL INFORMATION**

| Toxicity Data           | None |
|-------------------------|------|
| Carcinogenicity         | None |
| Reproductive Effect     | None |
| Effects of overexposure | None |
| Chronic effects         | None |
| Target organs           | None |
| Medical Conditions      | None |
| Generally Aggravated by |      |
| exposure                |      |

# **SECTION 12:ECOLOGICAL INFORMATION**



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| Mobility         | Will slowly degrade with exposure to UV light. |
|------------------|--|
| Bioaccumularion  | No data available                              |
| Biodegradability | No data available                              |
| Aquatic toxicity | No data available                              |

# **SECTION 13:DISPOSAL INFORMATION**

#### WASTE DISPOSAL:

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

# **SECTION 14:TRANSPORT INFORMATION**

| Any international and national regulatory requirements | None                                       |
|--|--|
| Packaging information                                  | Using the cartons \ pallet and paper core. |
| Any other special requirements                         | None                                       |
| Transportation   | By land transport and sea transport.       |

### **SECTION 15:REGULATORY INFORMATION**

| USER           | Not classified as hazardous to users      |
|----------------|---|
| IATA TRANSPORT | Not classified as hazardous for transport |