

# MATERIAL SAFETY DATA SHEET

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## 1. Manufacturer Information:

Product name : KEIJU (Single membrane)  
Company : Mitsubishi Plastics, Inc.  
Address : Mitsubishi Jushi Bldg., 1-2-2 Nihonbashihongokucho,  
Chuo-ku, Tokyo 103-0021, Japan  
Department in charge : Electronics & Industrial Film Department  
Tel. : +81-3- 3279-3042  
Fax. : +81-3-3279-6677  
Mail address : mpi7041@cc.mpi.co.jp  
Emergency phone No. : +81-3- 3279-3042  
Recommended and restriction in us: Silicone rubber film

Serial No. 733-009

Revision : July 30, 2010

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## 2. Summary of hazardous and toxicity

Name of classification : None  
Hazard : Combustible  
Eye contact : Slightly irritating to eye  
Skin contact : Slightly irritating to skin  
Inhalation : Low risk of inhalation  
Ingestion : Slightly harmful  
Other information : None

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## 3. Composition and ingredient

Single or mixture : Mixture  
Official gazette serial No. (Workers' safety and Health Law): 312 (Silica)  
Ingredient & content:  

Ingredient	Content
Silicone rubber	100%

(Cross-linked polyalkyl alkenyl siloxane,  
Silicone dioxide, small amount of additives)

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## 4. First aid measures:

Eye contact : Ordinary, flush eyes immediately with clean and plenty of water and ask for medical help.  
Skin contact : Ordinary, flush with water and soap.  
Inhalation : Not Applicable  
Ingestion : Take medical treatment as soon as possible

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## 5. Fire fighting

- Extinguishing method : Shut off fire source, use the following extinguisher. Toxic gases (formaldehyde), silica dust may form upon combustion.  
Firefighters should wear proper breathing gears.
- Extinguishing media : Dry chemical powder, foam, and carbon dioxide
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## 6. Accidental release measures

- Precaution to a human being : As this is solid having certain shape, not applicable.
- Precaution to environment : All leakage of the product shall be promptly collected, because it is persistent under natural environment.
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## 7. Caution upon handling and storage

- Handling : Keep away from fire source. After using this material, wash hands and face with plenty of water.
- Storage : Avoid direct sunshine. Store in dark and cool indoor.
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## 8. Exposure protection measures

- Concentration limitation : Not specified
- Allowable concentration:
- Japan Industrial Hygiene 1996 : Not specified
  - ACGIH 1997 : Not specified
- Facilities measures : Not required
- Respiratory protection : Not required
- Protective glasses : Goggle with side-seal is useful
- Protective gloves : Wear protective gloves during handling work piece having sharp edges.
- Protective clothes : Not required
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## 9. Physical & Chemical properties

- Appearance : Black
- Boiling point : Not applicable
- Vapor pressure : Not applicable
- Volatile liquids : None
- Melting point : Not applicable
- Initial distillation temperature : Not applicable
- Solubility (Water) : Not soluble
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## 10. Hazards identification (Stability & Reactivity)

Flash point	: Not applicable
Ignition temperature	: Not applicable
Explosion limit	: None
Flammability	: Combustible
Spontaneous combustibility (Reactivity with water)	: None
Oxidizability	: None
Self-reactivity, explosive	: None
Dust explosion	: None
Stability, reactivity	: Stable at ambient temperature. But decomposition will occur with strong acid and alkaline.

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#### 11. Toxicological information (Affection to human being including epidemiology)

Skin corrosiveness	: No knowledge
Irritant (skin, eye)	: No knowledge
Allergenic and sensitizing effects:	No knowledge
Acute toxicity (including 50% fatal dosage):	No knowledge
Sub-acute toxicity	: No knowledge
Chronic toxicity	: No knowledge
Carcinogenic effects	: No knowledge
Mutagenic effects (microbial, chromosome abnormalities):	No knowledge
Reproductive toxicity	: No knowledge
Teratogenic effects	: No knowledge
Others (Toxic gases may form if the material contact with water):	None

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#### 12. Ecological information

Biodegradability	: None
Bioaccumulation	: None
Fish toxicity	: None
Other information on eco-toxicity	: Do not discharging into drains or aquatic environment to avoid the ingestion of animals living in the ocean and the birds.

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#### 13. Caution upon disposal

Dispose of by incineration with authorized in a safety chemical incinerator in accordance with the laws or dispose of by land-fill. As silica dust may be formed during the incineration, wear dust proof mask as needed.

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#### 14. Caution upon transportation

Prevent product from breaking, handle with care. Avoid moisture, water, high temperature and direct sunshine.

#### 15. Important Safeguards

Absolutely do not implant, insert in the body. Never use for any applications for which the material will be left in the body. In case of using for medical devices, foodstuff, and other special purpose applications, please test and make certain that you can do so safely.

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#### 16. Utilization of above information

The above description has been prepared based on the latest data available. But, the physical properties, hazardous and toxicological information are not guarantee data. The cautions are mentioned for the case of normal handling. In the case of special handling, please apply safety precaution in consideration of application and method of using.

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## MATERIAL SAFETY DATA SHEET

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### 1. Manufacturer Information:

Product name : KEIJU (Multiple membrane)  
Company : Mitsubishi Plastics, Inc.  
Address : Mitsubishi Jushi Bldg., 1-2-2 Nihonbashihongokucho,  
Chuo-ku, Tokyo 103-0021, Japan  
Department in charge : Electronics & Industrial Film Department  
Tel. : +81-3- 3279-3042  
Fax. : +81-3-3279-6677  
Mail address : mpi7041@cc.mpi.co.jp  
Emergency phone No. : +81-3- 3279-3042  
Recommended and restriction in use  
: Silicone rubber, biaxially oriented Polyethylene terephthalate film

Serial No. 733-049

Revision : July 30, 2010

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### 2. Summary of hazardous and toxicity

Name of classification : None  
Hazard : Combustible  
Eye contact : Slightly irritating to eye  
Skin contact : Slightly irritating to skin  
Inhalation : Low risk of inhalation  
Ingestion : Slightly harmful  
Other information : None

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### 3. Composition and ingredient

Single or mixture : Mixture  
Official gazette serial No. (Chemical Substances Control Law): (7)-1022 (PET)  
Official gazette serial No. (Workers' safety and Health Law): 312 (Silica)  
Ingredient:  
Ingredient CAS No.  
Silicone rubber  
( Cross-linked polyalkenyl siloxane Silica,  
Small amount of additives)  
Polyethylene terephthalate (PET) 25038-59-9

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### 4. First aid measures

Eye contact : Ordinary, flush eyes immediately with clean and plenty of water and

	ask for medical help.
Skin contact	: Ordinary, flush with water and soap.
Inhalation	: Not Applicable
Ingestion	: Take medical treatment as soon as possible .

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#### 5. Fire fighting

Extinguishing method	: Shut off to fire source, and extinguish using the following media. Toxic gases (formaldehyde, etc.) and fine powder of silica may be formed at the time of combustion. Firefighters should wear proper breathing apparatus.
Extinguishing media	: Dry chemical powder, foam, and carbon dioxide

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#### 6. Accidental release measures

Precaution to a human being	: As this is solid having certain shape, not applicable.
Precaution to environment	: All leakage of the product shall be promptly collected, because it is persistent under natural environment.

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#### 7. Caution upon handling and storage

Handling	: Keep away from fire source. After using these materials, wash hands and face with plenty of water.
Storage	: Avoid direct sunshine. Store in dark cool indoor.

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#### 8. Exposure protection measures

Concentration limitation	: Not specified
Allowable concentration:	
Japan Industrial Hygiene 1996	: Not specified
ACGIH 1997	: Not specified
Facilities measures	: Not required
Respiratory protection	: Not required
Protective glasses	: Goggle with side-seal is useful
Protective gloves	: Wear protective gloves during handling work piece having sharp edges.
Protective clothes	: Not required

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#### 9. Physical & Chemical properties

Appearance	: Black
Boiling point	: Not applicable
Vapor pressure	: Not applicable
Volatile liquids	: None

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Melting : PET 255°C~S60°C  
Initial distillation temperature: Not applicable  
Solubility (Water) : Not soluble

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10. Hazards identification (Stability & Reactivity)

Flash point : Not applicable  
Ignition temperature : Not applicable  
Explosion limit : None  
Flammability : Combustible  
Spontaneous combustibility (Reactivity with water) : None  
Oxidizability : None  
Self-reactivity, explosive : None  
Dust explosion : None  
Stability, reactivity : Stable at ambient temperature. But decomposition will occur with strong acid and alkaline.

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11. Toxicological information (Affection to human being including epidemiology)

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Acute toxicity (including 50% fatal dosage): No knowledge  
Sub-acute toxicity : No knowledge  
Chronic toxicity : No knowledge  
Carcinogenic effects : No knowledge  
Mutagenic effects (microbial, chromosome abnormalities): No knowledge  
Reproductive toxicity : No knowledge  
Teratogenic effects : No knowledge  
Others (Toxic gases may form if the material contact with water): None

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12. Ecological information

Biodegradability : None  
Bioaccumulation : None  
Fish toxicity : None  
Other information on eco-toxicity : Do not discharging into drains or aquatic environment to avoid the ingestion of animals living in the ocean and the birds.

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13. Caution upon disposal

Dispose of by incinerating with authorized incinerator for waste material in accordance with law or by land-fill. Upon incineration, as silica dust may be formed, wear dust mask as necessary.

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14. Caution upon transportation

Prevent product from breaking, handle with care. Avoid moisture, water, high temperature and direct sunshine.

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15. Important Safeguards

Absolutely do not implant, insert in the body. Never use for any applications for which the material will be left in the body. In case of using for medical devices, foodstuff, and other special purpose applications, please test and make certain that you can do so safely.

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