

## Material Safety Data Sheet

### 1. PRODUCT AND COMPANY INFORMATION

**Product name** : Hot stamping foil  
**Company** : DONGJIN ENTERPRISE  
**Address** : #291, Ganab-ri, Gwangjeok-myeon, Yangju-city, Gyeonggi-do, 482 841  
 Republic of Korea  
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#### Recommended use of the chemical and restrictions on use

Recommended use : Hot stamping foil for textile application

Restrictions on use : Food

### 2. HAZARDS IDENTIFICATION

#### Globally Harmonized System of Classification and Labelling of Chemicals(GHS)

Physical hazard / Health hazard / Environment hazard : Not applicable

#### Label elements including precautionary statements

Symbol / Signal word / Hazard statements / Precautionary statements : Not applicable

#### NFPA Rating

Health : 0

Flammability : 1

Reactivity : 0

Water reactivity : 0

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients           | CAS No.     | EINECS No.                     | Conc. % |
|-----------------------|-------------|--------------------------------|---------|
| Polyester             | 113669-97-9 | No data available<br>from ESIS | 90 ~ 95 |
| Silicon dioxide       | 7631-86-9   | 231-545-4                      | < 1     |
| Neopen Red 336        | 12227-55-3  | No data available<br>from ESIS |         |
| Neozapon Black RE     | 12237-22-8  | No data available<br>from ESIS | < 1     |
| Neutral Yellow 2GL    | 5601-29-6   | 227-022-5                      |         |
| Resins, Pigments, Etc | -           | -                              | 5 ~ 10  |

## 4. FIRST AID MEASURES

### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

### **In case of skin contact**

No data available

### **If inhaled**

If breathed in, move person into fresh air.

If not breathing, give artificial respiration.

### **If swallowed**

Never give anything by mouth to an unconscious person.

### **Potential Health Effects**

May be harmful if swallowed.

## 5. FIRE-FIGHTING MEASURES

### **Flammable properties**

Flash point : No flash occurred under 110 °C (Rapid equilibrium method)

Autoignition temperature : No spontaneous combustion under 300 °C

Burning rate : < 0.333 mm/s (UN TDG test & criteria - Test N1)

### **Suitable extinguisher**

Water spray, alcohol-resistant foam, dry chemical, carbon dioxide

### **Specific hazards arising from the chemical**

No data available

### **Special protective equipment for fire-fighters**

Wear self-contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### **Personal precautions**

No data available

### **Environmental precautions**

No data available

### **Methods and materials for containment and cleaning up**

No data available

## 7. HANDLING AND STORAGE

### **Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed.

## Conditions for safe storage

Avoid direct sunlight, heat sources, and strong oxidizing agents.

## 8. EXPOSURE CONTROL/PERSONAL PROTECTION

### Components with workplace control parameter

KOSHA : Silicon dioxide (CAS No. 7631-86-9) TWA : 10 mg/m<sup>3</sup>

US ACGIH : No data available      \* from US Haz-Map

Appropriate engineering controls : No data available

### Personal protective equipment

Respiratory protection : No data available

Hand protection : Protective gloves

Eye protection : Protective goggles

Skin and body protection : No data available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

State : Solid at 20 °C

Appearance form : Foil

pH : 6.5 ~ 7.5 at 20 °C      \* Sample : H<sub>2</sub>O = 1 : 5 (V/V)

Flash point : No flash occurred under 110 °C (Rapid equilibrium method)

Autoignition temperature : No spontaneous combustion under 300 °C

Water solubility : Water Insoluble at 20 °C

Density(Apparent) : 1.304 at 20 °C

Melting range : > 150 °C

### Flammability

Burning rate : < 0.333 mm/s      \* UN TDG test & criteria - Test N1

### Explosive properties

No self-reaction hazard      \* UN TDG test & criteria - Test E3

Boiling point (Initial) : No data available

Oxidizing properties : No data available

Vapour pressure : No data available

Decomposition temperature : No data available

Partition coefficient (*n-octanol/water*) : No data available

Viscosity : No data available

Lower explosion limit : No data available

Upper explosion limit : No data available

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under general condition.

### Conditions to avoid

Avoid dust formation.

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

|            |        |                      |                        |
|------------|--------|----------------------|------------------------|
| Oral       | rat    | LD50 : > 5,000 mg/kg | ※ from IUCLID / US NLM |
| Inhalation | rat    | LC50 : > 220 mg/L    |                        |
| Skin       | rabbit | LD50 : > 2,000 mg/kg |                        |

Skin irritation : No data available

Eye irritation : No data available

Respiratory sensitization : No data available

Skin sensitization : No data available

Carcinogenicity : Not classifiable ※ from CCRIS

Reproductive toxicity : No data available

Specific target organ toxicity - single exposure (GHS) : No data available

Specific target organ toxicity - repeated exposure (GHS) : No data available

Aspiration hazard : No data available

## 12. ECOLOGICAL INFORMATION

### Toxicity

|            |                          |                        |
|------------|--------------------------|------------------------|
| Fish       | LC50 : > 100 mg/L - 96 h | ※ from IUCLID / US NLM |
| Crustacean | EC50 : > 100 mg/L - 48 h |                        |
| Algae      | EC50 : > 100 mg/L - 96 h |                        |

**Persistence and degradability** : No data available

**Bioaccumulative potential** : No data available

**Mobility in soil** : No data available

**Other adverse effects** : No data available

### 13. DISPOSAL CONSIDERATIONS

#### **Disposal consideration**

Observe all environmental regulations.

#### **Disposal precaution**

Avoid disposing to the environment.

### 14. TRANSPORT INFORMATION

**UN TDG** : Not dangerous goods

**IMDG** : Not dangerous goods

**IATA** : Not dangerous goods

**Marine pollution** : Not applicable

#### **Special precaution**

Fire EmS Guide (Recommendation) : F-A

Spillage EmS Guide (Recommendation) : Not dangerous goods

### 15. REGULATORY INFORMATION

**Korea Industrial Safety and Health Act (GHS)** : Not applicable

**Korea Hazardous Materials Safety Control Act** : Not hazardous material

**Korea Toxic Chemicals Control Act** : Not toxic chemical

**Korea Persistent Organic Pollutants Control Act** : Not applicable

**US OSHA Hazard** : Not applicable

### 16. OTHER INFORMATION

**Issued Date** : 2012. 04. 12

**Revision No.** : 0

**Revision Date** : 2012. 04. 12

#### **References**

- GHS Classification :

Korea MSDS Testing Lab Certificate (Report No. 2012-03-04-108), IUCLID, EC ESIS

- Physical and chemical properties : Korea MSDS Testing Lab Certificate
- Transport information : Korea MSDS Testing Lab Certificate
- Toxic & ecological information : OECD SIDS, IUCLID, US NLM, IARC, EC ESIS, CCRIS,

**※ Hazards Testing and Classification**

**Korea MSDS Testing Laboratory**

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This MSDS is composed in line with The Korea Occupational Safety and Health Act Article 41 to protect the health of the employees, and for documentation.

This MSDS is composed with reference to documents and criteria provided by KOSHA.

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