



Material Safety Data Sheet (MSDS)

Version: 1.1
Language: en
Date: 27.07.2017

1. Identification of substance

Polyethylene foil

4films shield iron wet, 4films shield iron thermal

REACH registration number: -

Use of substance/preparation: Manufacture of paper and paper products

Company/undertaking identification

Manufacturer/Supplier:

4films GmbH . Thüringer Straße 14 . 37269 Eschwege

Telephone: +49 (0) 5651 7494-245

Further remarks:

4films GmbH

Information Telephone: +49 (0) 5651 7494-245

Information Telefax: +49 (0) 5651 7494-246

E-Mail (competent person): info@4-films.com

Website: www.4-films.com

Emergency telephone:

Telephone: +49 (0) 30 19240

Giftnotruf Berlin, Berliner Betrieb für Zentrale Gesundheitliche Aufgaben, Institut für Toxikologie

Dept. Responsible for information:

4films GmbH

2. Composition and Information on Ingredients

2.1. Product Name:

4films shield iron wet, 4films shield iron thermal

2.2. Product Name:

Substance/Mixture: 100 %

UN Number: Not Registered

| Chemical Name | Composition | Chemical Formula | Registr. No. | TSCA (CAS No.) |
|---------------|-----------------------------------|------------------------------|--------------|----------------|
| Polypropylene | Biaxially Oriented Propylene Film | (Polypropylene) _m | - | 9003-07-0 |



3. Type of Hazardous

- 3.1. GHS-Type:** unlisted
- 3.2. Danger in physicochemic:** none
During the molding process, it is important to maintain the proper temperature, as there is the possibility of gas emissions.
- 3.3. Harm to health** none
There is no toxicity to the human body.
- 3.4. Harm to enviroment** none
If the film is left outside, there is the possibility that animals may swallow film and suffocate.
- 3.5. Label display type** unlisted

4. Hazards Identification

- Class Name of Hazardous Chemical for MSDS in Japan:** Not Applicable
- Physical & Chemical Hazards:** Not Available under normal Condition
- Adverse Human Health Effects:** Not Available under normal Condition
- Environmental Effects:** -

5. First Aid Measures

- General Information:** Not Available under normal temperature. You should caution since some parts are melt condition when print laminate process.
- 5.1 Eye Contact:** In case of contact with EVA, immediatelly flush eyes with plenty of water for at least 15 minutes. If eye irritation persists, seek medical advice.
- 5.2 Skin Contact:** Isolatetd cases of dermic symptoms have been associated with handling of coated/plastic films and have been attributed to very rare forms of allergy.
The use of protective gloves can usually eliminate such problems, but in extreme cases, the person concerned should be removed from the environment. Cleaning of the skin after it's use is advisable.
- 5.3 Inhalation:** In the event of processing, precautions must be taken to avoid inhalation of the fumes generated, and the use of filter mask would be adviseable.
- 5.4 Ingestion:** Coated BOPP/BOPP are non-toxic. However in the unlikely event of ingestion of BOPP Thermal film, flake oder dust particles, it is recommended to seek medical advice.



6. Fire-Fighting Measures

Specific Hazards with Regard to Fire-Fighting Measures:

Firefighters should wear proper protective equipment. Coated BOPP/BOPP are not flammable material but it will burn if exposed to flame.

Extinguishing Media: Flame

7. Accidental Release Measures

Thermal Films are slippery. Film should not be allowed to litter floor or obstruct access areas where people may walk or stand.

8. Handling and Storage

8.1 Handling: Pallet strapping is under tension and when cut, will recoil exposing sharp corners. Various materials are utilized in the packaging, over wrapping of rolls and pallets during transit and storage. In any event, care should be taken in the handling and disposal of these materials and appropriate health and safety guidelines should be observed.

8.2 Storage: It is recommended that the rolls be stored below 25 °C at maximum 55% relative humidity.

9. Exposure Control / Personal Protection

9.1 Control Concentration: -
PEL (OSHA): Not established
TVL (ACGIH): Not established

9.2 Engineering Measures:
Ventilate a plant since there are a possibility that dissolution gas occurs during print lamination and use processing equipment with local exhaust ventilation.

9.3 Personal Protective Equipment:
Wear long-sleeved clothes, gloves (made of cotton or leather) and be careful not to be burned during print lamination. Wear safety shoes, safety helmet and face protection as required.

10. Physical / Chemical Properties

Appearance and form: Haze on Coated side and Glossy on the other side
Boiling point: No data available
Vapor pressure: Not Applicable
Volatility: No
Melting point: No data available
Solubility (in water): Insoluble
Others: -



11. Physical Hazard (Stability & Reactivity)

| | |
|-----------------------------|---|
| Flash point: | > 340°C (estimation) |
| Auto-ignition point: | > 400°C (estimation) |
| Explosion limit | (Upper): - (Lower): - |
| Flammability: | Yes |
| Spontaneous combustibility: | None |
| Oxidizibility: | None |
| Self reactivity: | None |
| Dust Explosion: | Possible in case of fluff. It is necessary to set equipments which remove static properly. |
| Stability, Reactivity: | Stable under normal temperature. Dissolved at 300°C and more, and produce hydrocarbon and its oxidized substances such as aldehyde, acid and alcohol. |
| Others: | - |

12. Toxicological Information

| | |
|---|------|
| Skin irritation: | None |
| Irritant properties: | None |
| Sensitizing effects: | None |
| Acute toxicity: | None |
| Sub-acute toxicity: | None |
| Chronic toxicity: | None |
| Carcinogenic effects: | None |
| Mutagenic effects: | None |
| Teratogenic effects: | None |
| Others (including the case that poisonous gas occur reacting with water): | - |

13. Ecological Information

| | |
|-------------------|------|
| Biodegradability: | None |
| Bioaccumulation: | None |
| Fish toxicity: | None |
| Others: | None |

14. Transport Information

- 1 Not classified as Dangerous Goods for Land/Sea/Air Transport.
- 2 This information relates only to the specific materials designated and may not be valid for such material used in combination with any other materials or in any process.



15. Disposal Consideration

Thermal Films are water insoluble, effectively non-toxic solid, which do not create any environment hazard. The disposal of thermal film in supervised waste tips is clean and effective. It can be recycled effectively and consequent products can be used in certain applications.

16. Toxicological Information

Warnings related to danger and safety: None

17. Other Information / References

17.1 4films GmbH
Thüringer Straße 14
37269 Eschwege
+49 (0) 5651 7494-245

17.2 Information:

The information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assure no liability resulting from its use. It is advised to make their own test to determine the safety and suitability of each such product for their own purpose.