

MATERIAL SAFETY DATA SHEET

Product :

MINSEO SL, NE Series

Version : 1

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1. CHEMICAL PRODUCT AND COMPANY INDICATION

Chemical Name: Polyurethane Heat Transfer Film
Company Name: **MINSEO CO., LTD.**
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2. COMPOSITION

INGREDIENTS	WEIGHT%	CAS NO.
Polyester film	60.7%	25038-59-9
PU layer	13.1%	70050-06-0
Polyester hot melt adhesive	26.2%	Trade secret

3. HAZARD IDENTIFICATION

As the properties of this product have not yet fully been explored, care should be exercised when handling.
By excessive exposure to dust, eye, skin and respiratory tract irritation is possible.

4. FIRST AID PROCEDURES

Irritation: Take to fresh air and seek medical attention.(*)
If breathing is difficult, give oxygen.
Eye contact: Irritate with pure water for at least 3 minutes, then seek medical attention.(*)
Skin contact: Wash with soap.(*)
Rinse with water.
Ingestion: Remove any material from mouth.
Wash the mouth thoroughly with water.
Seek medical attention.

5. FIRE FIGHTING PROCEDURES

Suitable extinguishing media: Water
Foam, dry powder, CO₂.
Unsuitable extinguishing media: None to our knowledge.
Exposure hazard: Keep container cool by spraying with water if exposed to fire.
Aldehydes and acids can be liberated.(*)
Thermal decomposition can lead to the evolution of irritant vapour or gases and/or fire.(*)
Special equipment: Pressure demand self contained breathing apparatus should be provided to fire fighters in building or confined area where this material is stored.

6. ACCIDENTAL RELEASE PROCEDURES

Precautions with respect to individuals:	No special precautions are necessary.(*) Confine area of spill and transfer spilled product to suitable containers for disposal
Precautions with respect to environment:(*)	Avoid discharge into the environment. Clean up spillage immediately.
Cleaning up spillage:	Sweep up into suitable containers for disposal.

7. STORAGE AND HANDLING

Storage:	Do not expose to temperature exceeding 40 °C for a prolonged time. Keep in the original container in a cool & well-ventilated place. Protect from direct sunlight and all heat sources in order to avoid sintering.
Handling:(*)	Avoid inhalation of dust during the processing of the resin Local exhaust is recommended.

8. EXPOSURE CONTROL/INDIVIDUAL PROTECTION

Exposure control:(*)	Local exhaust is recommended. Avoid inhalation of dust
Individual protection-respiration:	Use adequate respiratory equipment.(*)
Individual protection-hands:	Use protective gloves.(*)
Individual protection-eyes:	Protection from dust by safety glasses.(*)
Individual protection-skin:	None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Liquid
Odor:	Odorless
Acidity(acid value; mg KOH/g):	N/A
Intrinsic Viscosity:	70,000-90,000cps at 25 °C
Softening point/interval:	95 ± 2
Freezing point/interval:	Not applicable
Exposure properties:	Not applicable.
Vapor pressure:	<22 mm Hg(20 °C)
Specific density:	3.14 g/cm ³ (H ₂ O = 1 g/cm ³)

10. STABILITY AND REACTIVITY

Conditions to avoid:	This product is stable at room temperature and in normal handling conditions. Protect from direct sunlight and all heat sources.(*)
Materials to avoid:	Avoid contact with strong acids and bases.
Hazardous decomposition procedure:	Smoke, carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

Information on the product:	No exact toxicological data are available.
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12. ECOLOGICAL INFORMATION

The product is not harmful for the environment.

As this product is a 100% active material, no evaporation or air pollution during handling under normal conditions can occur.(*)

13. DISPOSAL CONSIDERATIONS

The product may be disposed of under controlled incineration and in agreement with local and national legislation.

14. TRANSPORT REGULATIONS

Not subject to regulation.(*)

15. REGULATORY INFORMATION

No label required.

16. OTHER INFORMATION

(*) Denotes a revision from the previous version of this MSDS.

17. User responsibility/Disclaimer of Liability

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state and local laws and local regulations remains the responsibility of the user. This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation should be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to develop appropriate work practice guidelines and employee instructional programs for your operation.

“This Material Safety Data Sheet complements, but does not replace, our Technical Data Sheet. The information is provided by way of a guide to the use of our product and is correct to the best of our knowledge.

We can not guarantee that the risks referred to above are the only risks present. The final choice of the application of a product is thus the sole responsibility of the user.”

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Provided by : **MINSEO CO., LTD.**