Safe Use Instruction Sheet
Clarifoil T17, T24 and T95 Non-coloured films

0. General Information


Therefore, under normal usage of our products, a Material Safety Data Sheet (MSDS) is not required and will not be issued by Celanese.

To support our customers with additional data on safe handling and use instructions for our manufactured articles this Safe Use Instruction Sheet was created.
1. **Identification of the substance and company.**

1.1 Product name  
Clarifoil – T17 / T24 / T95 grade

1.2 Chemical name  
Cellulose Diacetate

1.3 Manufacturer's name and address  
Celanese Production UK Ltd  
1 Holme Lane  
Spondon  
Derby  
DE21 7BS UK

Company phone number  
+44 (0)1332 661422

Emergency Telephone  
+44 (0)1332 661422

Company website  
www.celanese.com/clarifoil

2. **Composition/information on ingredients.**

A flexible packaging material derived largely from natural resources. Materials of this type have been widely used for many years, with no adverse reactions reported. The principle components are cellulose diacetate (CA) and glycerol triacetate (triacetin).

3. **Hazards identification.**

3.1 Potential Hazards  
Clear, Smooth flat sheets. (similar safety hazards to paper).

3.2 Fire and Explosion Hazard  
Supports combustion. Flame retardant formulations are available.

3.3 Decomposition Products  
Carbon monoxide, carbon dioxide, acetic acid, water.

4. **First-aid measures.**

4.1 Inhalation  
Not applicable

4.2 Skin contact  
No adverse effects anticipated

4.3 Eye contact  
No adverse effects anticipated

4.4 Ingestion  
No adverse effects anticipated

No adverse effects expected on prolonged exposure.

5. **Fire-fighting measures.**

5.1 Extinguishing Media  
Water, carbon dioxide, foam, dry powder, sand.

5.2 Special Fire Fighting Procedure  
As with any fire, use breathing apparatus in presence of smoke/fumes.

6. **Accidental release measures.**

6.1 Steps to be taken if material is spilt. Loose waste and scrap material should be swept up for safe disposal.
7. Handling and storage.

7.1 Handling
- Avoid damage to the edge of the roll.
- **NEVER** stand rolls on end, avoid placing or rolling rolls on the floor.
- Handle rolls using mandrels inserted into the core.
- Store by suspending on racks using mandrels.
- Do not hammer mandrels into the core.

7.2 Storage
Decades of reliable performance have demonstrated that Clarifoil cellulose diacetate film can be used in its many applications with the confidence that the product provides a consistently high level of quality. However, cellulose diacetate, like all polymers, must be stored appropriately to preserve its performance. Close adherence to the following conditions will maintain Clarifoil rolls in the best possible state.

- Keep all rolls in their moisture-proof wrapping until required for processing. Re-wrap partially used and slit rolls.
- Suspend the rolls on racks by rods through the cores.
- Avoid “walking” rolls on one end as the edges will become damaged. This is very important for rolls of thin film (14 – 30µ).
- Avoid wide variations in temperature and humidity in the storeroom. Temperatures between 15°C– 23°C (59ºF - 73ºF) and a relative humidity between 40% - 65% are the best conditions.
- Avoid exposure to ketone and ester solvent vapours such as acetone or ethyl acetate.
- Do not store in bright sunlight.
7.3 Shelf Life

As a general rule, Clarifoil should be processed promptly. We would recommend that customers process Clarifoil within 12 months of its receipt. Particularly for hot and/or humid climates, and where the film is supplied as narrow reels (300mm or less), it is recommended to convert Clarifoil within 6 months of receipt. Thicker films (over 100µm) may suffer unidirectional curl (“roll set”) after even a few months storage as rolls. For applications where this might be critical, thicker films should be processed as soon as possible after receipt.

In case of problems after such periods, we reserve the right not to offer compensation in respect of problems arising with film quality.

8. Exposure controls/personal protection.
8.1 Special Requirements None
8.2 Ventilation Requirements Fume extraction and fresh air circulation is recommended where solvents are being used during lamination or other finishing processes.

9. Physical and chemical properties.
9.1 Appearance Flat sheets or rolled film
9.2 Odour Practically Odourless
9.3 Specific Gravity 1.32 ± 0.01 (T17/T95)
1.31 ± 0.01 (T24)
9.4 Flow Temperature Not applicable
9.5 Viscosity Not applicable
9.6 Solubility in Water Insoluble
9.7 Equilibrium Water Content Circa 2% (in air @ temp. 23°C, RH 50%)

10. Stability and reactivity.
10.1 Thermal Stability Decomposes circa 250°C
10.2 Solvent Resistance Low resistance to ketones and esters
Attacked by moderate to concentrated strong acids and bases.
Resistant to non-polar solvents.

11. Toxicological information.
Material of this type has been in use for many years. There have been no chronic, short- or long-term effects reported. Specific toxicological tests for T17 / T24 films have not been conducted. However, practical experience and literature surveys for the key components reveal the following information:-

11.1 Inhalation Not applicable
11.2 Ingestion/Oral Toxicity (LD50) 8600 mg/kg (rat) for Cellulose diacetate
3000 mg/kg (rat) for glycerol triacetate
11.3 Skin sensitivity No adverse effects anticipated
11.4 Eye contact

Normal discomfort resulting from foreign bodies in the eye.

12. Ecological information

This product is not expected to be harmful for the environment. More details can be found in our datasheet CFL 120

13. Disposal considerations

Disposal should be in accordance with applicable regional, national and local laws and regulations

14. Transport information

The material is not regulated for transport and shipping purposes. Materials packed on pallets should not be broken down during shipment.

15. Regulatory information

None.

16. Other information

Disclaimer

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.

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