

Thin Film Technology, Inc.

15 JULY 2015

TO: Our Valued Customers

RE: HAZMAT Shipping Status of Epoxy Resins

Dear All:

Please be advised that the Hazmat status of all of our epoxy bases has changed. Until now, TFT has been proud to claim that the great majority of our products were “Not Regulated”, (NonHazmat), for shipping by air, ocean, or surface.

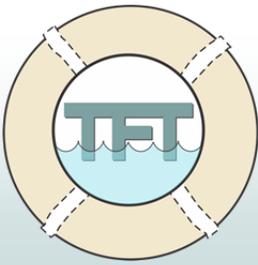
Recent changes by IATA have re-classified ALL liquid epoxy resins as “Environmentally Hazardous Substances, Liquid, N.O.S.” (The “N.O.S.” means **N**ot **O**therwise **S**pecified, a “catch-all” for the group of substances). The relevant classification in which TFT epoxies now fall (base components only) is “UN 3082 PGIII”. The “UN 3082” number is the identifier for environmentally hazardous substances; “PGIII” stands for “Packing Group III”, the least potentially harmful out of the three categories of threat.

Note: The IATA Dangerous Goods Board of the International Air Transport Association (IATA) publishes “Dangerous Goods Regulations”. This manual of rules and procedures is followed by all IATA member airlines. Following suit, the International Maritime Dangerous Goods (IMDG) Code, an almost-universally accepted code for regulating sea transport of hazardous materials, has also been revised.

Consequently, epoxy resins are now a regulated HAZMAT material for shipment by Air or by Ocean Freight. They remain unregulated for shipment by surface. This means **“NO CHANGE”** for all **GROUND** transportation including trucks and UPS / FedEx. Domestic and International shipping by Air or Ocean, however, is subject to NEW additional regulations:

- a) **Packaging:** As hazardous materials, epoxy resins must now be sealed in UN-approved containers (steel cans) packed inside approved “4G” fiberboard boxes. These boxes are more expensive due to the required inserts, safety packing, and special labeling. They are also oversized which makes a higher cube to freight size than previous packaging. This will increase shipping costs.
- b) **Paperwork:** TFT is also required to have shipments properly identified with a “Shippers Declaration for Dangerous Goods”. This document can be completed **ONLY** by a trained and certified individual whose certification is current and within a two-year re-certification period. For the present, TFT has arranged with a freight forwarder to use their Hazmat department to vet our shipments and complete the required paperwork. Within a couple of months, we will be able to handle this process in house.
- c) **Cost Increase:** Complying with the new regulations will take considerable added direct and indirect labor as well as training and an inventory of new packing materials. Consequently, TFT will have to recover the extra packing and documentation costs in order to continue providing our excellent epoxy products. We are in the process of compiling a proper estimate of our increased costs. When known, the price increase to TFT customers will be published.





In the interim, note that last minute shipping by FEDEX/UPS NEXT DAY or 2-DAY SERVICE (or any type AIR shipment) will now be dramatically more expensive than it has been.

- d) Split Shipments: Extra costs will be incurred ONLY for the epoxy base (Part A component). Whenever practical, TFT will send products as two shipments: one “Hazmat” with the bases only and the other “Not Regulated” with the curing agents and other miscellaneous items. This will help reduce consignee shipping costs because a single all inclusive “Hazmat” shipment would naturally be more expensive. It does mean, however, for air or ocean freight, that we will no longer be able to pack a “kit” with the base and curing agent in one carton.
- e) Mix Ratio & Packaging Challenges: We have sourced UN-approved containers for gallon, quart, and pint sizes so two-gallon or smaller kits with a standard 1/1 mix ratio will be unaffected. However, products with the 2/1 mix ratio or any kit requiring 2-gallon pails will be a bit more problematical as we have not yet found suitable UN-approved 2-gallon packaging.
- f) Air/Ocean Interim Packaging Options: Since UN-approved containers may be limited to a maximum 1 gallon can size for most kits, TFT is considering a few options below, but both options are a bit less than ideal:
 - a. Split the base into 2 x 1 gallon cans with a gallon of curing agent (and the customer would have to supply their own 2-gallon pail for mixing)
 - b. Ship ½ gallon of base in a gallon can with a full quart of curing agent

I'm sure that we shall get used to this new reality. It's certainly not going away any time soon! About 50% of TFT production is exported by Air or Ocean Freight so we obviously have no choice but to get up to speed as quickly as possible. Be assured that we will do everything we can to minimize the adverse impacts of these new requirements.

With kind regards and our sincere appreciation of our business relationship,

Sincerely:

Jeff Longmore
President

