

SUMMARY OF TOPICS

The following topic for the Standard for Marking and Labeling Systems, UL 969, is being recirculated:

1. Revision of thermal shock requirements that have been applied to labels affixed to PWB's and clarification of labels evaluated for use in Class I, Division 1 hazardous locations

COMMENTS DUE: February 19, 2018

For your convenience in review, proposed additions to the previously proposed requirements dated (2017-10-20) are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Revision of thermal shock requirements that have been applied to labels affixed to PWB's and clarification of labels evaluated for use in Class I, Division 1 hazardous locations

RATIONALE

Responses to comments have been posted within the UL 969 Proposal Review Work Area dated (2017-10-20).

This change is based on a comment received during the balloting period.

PROPOSAL

Table 7.4
Exposure conditions for common agents

Agent	Exposure condition ^a
Cooking oil	Immersion for 48 ±0.5 h in corn oil.
Detergent (dishwasher)	Immersion for 48 ±0.5 h in a solution of 25 ±1 g of granular dishwashing detergent ^b specified in the Standard for Household Dishwashers, UL 749, in 1 L of demineralized water.
Detergent (laundry)	Immersion for 48 ±0.5 h in a solution of 25 ±1 g of granular laundry detergent ^b specified in the Standard for Electric Clothes Washing Machines and Extractors, UL 2157, in 1 L of demineralized water.
Fuel Oil No. 1	Immersion for 48 ±0.5 h in fuel oil No. 1.
Fuel Oil No. 2	Immersion for 48 ±0.5 h in fuel oil No. 2.
Gasoline (splashing)	Immersion for 60 ±5 min in ASTM Reference Fuel C. ^c
Kerosene	Immersion for 48 ±0.5 h in kerosene.
Lubricating oil	Immersion for 48 ±0.5 h in IRM903 Oil.
Hydraulic fluid	Immersion for 48 ±0.5 h in hydraulic fluid that has a ISO Viscosity grade of 46.

Table 7.4 Continued

Agent	Exposure condition ^a
Thermal Shock	Exposure in one of the following mediums as specified in the Standard for Printed-Wiring Boards, UL 796; 1) Convection Oven, 2) Sand Bath, 3) Solder pot or 4) IR Reflow Oven. The ~~soldering or equivalent operation~~ <u>thermal shock</u> should be conducted at the maximum temperature and dwell time specified by the manufacturer.
^a The liquid for the immersion test is to be maintained at the temperature the liquid will attain in service, but not less than 23 ±2°C (73.4 ±3.6°F). ^b For dishwashing applications, Cascade may be used; for clothes-washing machine applications, Tide may be used. ^c A 50/50 mixture by volume of isoöctane and toluene.	

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