

UNDERWRITERS LABORATORIES INC. CERTIFICATION REQUIREMENT DECISION

This Certification Requirement Decision is prepared by UL LLC. It is normative for the applicable UL Product Certification Program(s); however, it is currently not part of the UL Standard(s) referenced below.

Product Category (CCN): PGDQ2, PGGU2, PGJ12
Standard Number: UL 969
Standard Title: Standard for Marking and Labeling Systems
Edition Date: May 30, 2017
Edition Number: 5
Section / Paragraph Reference: Clause 7.3.1 and Table 7.4.
Subject: Addition 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.

DECISION:

7.3.1 Marking and labeling systems intended to be applied to products for use in Class I, Division 1, Zone 0 or Zone 1 hazardous locations shall be subjected to the applicable exposure conditions specified in 7.1.1 – 7.1.6 and shall be subjected to the conditions specified in 7.3.2 – 7.3.4.

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.
<u>Thermal shock</u>	<u>Exposure in one of the following mediums as specified in UL 796: 1.) Convection Oven, 2.) Sand Bath, 3.) Solder pot or 4.) IR Reflow Oven. The soldering or equivalent operation should be conducted at the maximum temperature and dwell time specified by the manufacturer.</u>
^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.	

RATIONALE FOR DECISION:

Clause 7.3.1 : The revision is intended to align the UL 969 requirement with the requirements specified in UL 1203, Standard for Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) locations.

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Table 7.4 : Definitive requirements added to cover a condition we have been evaluating marking and labeling systems for in the past.

No future effective date will be required.

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