Peelable Solder Mask
863 Technical Data Sheet

Description

Our 863 *Peelable Solder Mask* is a latex product for temporary masking of circuit areas and contacts against solder, rosin, cleaning fluids. It consists of a high-temperature-resistant rubber latex.

Applications & Usages

The 863 mask can be applied by pouring, brushing, and by pneumatic dispensers.

Features and Benefits

- **High SIR (Surface Insulation Resistance) value**
- **Moderate odor**
- **Non-Flammable**
- **VOC Free**
- **Easy to peel**
- **Non-toxic**

Curing & Work Schedule

Properties	*Value*
Full Cure @room temp.	60 min
Full Cure @65 °C [149 °F]	30 min
Full Cure @80 °C [176 °F]	20 min
Shelf Life	1 y

Coverage and Limits

Properties	*Value*
Storage Temperature	22 °C [72 °F]
Coverage per tube [b)]	2 900 cm^2 [3.1 ft^2]

a) Shelf life for unopened products with respect to date of manufacture.
b) Idealized estimate based on a coat thickness of 500 μm [20 mil].

Chemical Components

Name	***CAS Number***
Natural Rubber Latex	*9006-04-6*
De-ionized Water	*7732-18-5*
Ammonia	*1336-21-6*

Date: 09 December 2013 / Ver. 1.01

Properties of Cured 863

Physical Properties	*Method*	*Value*
Color	Visual	Pink
Odor	Olfactory	Low
Weight Loss @250 °C for 10 min	Lab Oven	3.4%
Wave Solder Tolerant		Yes
Peelability		Excellent

Properties of Uncured 863

Physical Property	*Method*	*Value*
Color	Visual	Pink, opaque
Odor	Olfactory	Moderate, Ammonia
pH (5% solution)		9.5–11.0
Thickness Recommendation		500–760 µm[20–30 mil]
Viscosity (@25 °C, 20 RPM, RFV spindle 5)	Brookfield	13 000 cP [13 Pa·s]
Density @25 °C	ASTM D 1475	1.02 g/ml
Aq. Solubility		Miscible
Solids Content (w/w)		58-62%

Compatibility

The 863 mask is compatible with most materials found on printed circuit assemblies; however, in an uncured state it is not compatible with contaminants like oil, and greasy flux residues. MG Chemicals recommends cleaning the printed circuit assembly with a suitable electronic cleaner before applying the 863 mask or other coatings.

The chosen electronic cleaner should remove wax, greases, oils, and all other contaminants. (See recommended cleaners on page 4.)

Health, Safety, and Environmental Awareness

Please see the 863-Liquid **Material Safety Data Sheet** (MSDS) for more details on transportation, storage, handling and other security guidelines.

Environmental Impact: The volatile organic content is 0%.

This product meets the European Directive 2011/65/EU Annex II (ROHS); recasting 2002/95/EC.

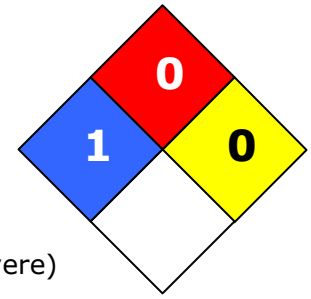
Health and Safety: The mixture may cause skin irritation skin or skin allergies. Most components are not classified as hazardous.

HMIS® RATING

HEALTH:	**1**
FLAMMABILITY:	**0**
PHYSICAL HAZARD:	**0**
PERSONAL PROTECTION:	

Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

NFPA® 704 CODES



Wear safety glasses and disposable gloves. Wash hands thoroughly after use.

The cured coating presents no known hazard.

Application Instructions

Squeeze a desired quantity on board. Use squeegee or template, if available, to get better control of coverage. If the product is too thick, thin it with deionized (D.I.) water.

To cure at Room temperature

- Let air dry 1 hour

To accelerate cure by heat

- Put in oven or under heat lamp at 65 °C [149 °F] for 30 minutes.
- Put in oven or under heat lamp at 80 °C [176 °F] for 20 minutes.

NOTE: Coats that are very thick require more time to dry.

Packaging and Supporting Products

Cat. No.	Form	Net Volume		Net Weight		Shipping Weight	
863-250ML	Tube	250 mL	8.5 fl oz.	0.25 kg	0.55 lb	0.25 kg [a)]	0.55 lb [a)]
863-1G	Pail	3.78 L	1.0 gal	3.85 kg	8.5 lb	4.0 kg	8.8 lb

a) Pack of 10 cans

Electronic Cleaners

- Cat. No. 4050A-340G, 4050-1L, 4050-4L, 4050-20L Safety Wash Electronics Cleaner
- Cat. No. 406B-450G Superwash Cleaner Degreaser
- Cat. No. 824 Isopropyl Alcohol

Technical Support

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

Email: support@mgchemicals.com

Phone: 1-800-340-0772 Ext. 1030 (Canada, Mexico & USA)
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Warranty

M.G. Chemicals Ltd. warranties this product for 12 months from the date of purchase by the end user. *M.G. Chemicals Ltd.* makes no claims as to shelf life of this product for the warranty. The liability of *M.G. Chemicals Ltd.* whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

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