

23815-0000



United States Testing Company, Inc.
Biological Services Division



Material Safety Data Sheet Interpretative Statement
for
Pentel® Roll n Glue Liquid Adhesive ER 101

Description of Product: This liquid adhesive is marketed in small (30cc) dispensers with a restricted flow devise. This water based glue dries to form an adhesive bond primarily for use with paper and cloth.

Physical Hazards: The adhesive is soluble in water and is not flammable per se. However, if ignited, a general type fire extinguisher and normal precautions would be adequate. There are no recognized hazardous decomposition products.

Health Hazards: The acute health hazards associated with this product are low. The adhesive is not a skin irritant and there are no fumes to irritate the eyes. The product can be easily washed from the body with water. Because the product contains 5% ethylene glycol ingestion of large amounts of the product may be slightly toxic. Another ingredient, polyvinyl alcohol, is listed as a suspected carcinogen but only in studies where the solid material (e.g. sponge) was implanted in animals. The solid form is not present in this product.

No special ventilation or protective clothing is currently required while using the product but gloves are recommended if large amounts of the adhesive are to be used.

No special procedures are currently required for storing or handling this product.

SIGNED FOR THE COMPANY BY

Brian L. Roberts 11.21.85

Brian L. Roberts, Ph.D.
TOXICOLOGIST

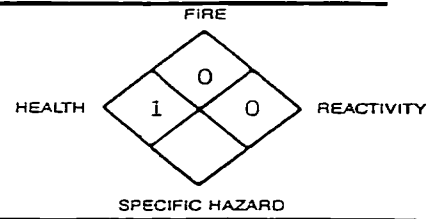
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Material Safety Data Sheet

QUICK IDENTIFIER (In Plant Common Name)
ER-101

Manufacturer's Name: Pentel of America, Ltd.
Address: 2715 Columbia St. Torrance, CA 90509
Signature of Person Responsible for Preparation: Brian L. Roberts, PhD

HAZARD RATING
4 = Extreme
3 = High
2 = Moderate
1 = Slight
0 = Insignificant



See Section (5):

SECTION 1 - IDENTITY

Common Name: (used on label) (Trade Name & Synonyms) Pentel Roll'n Glue Liquid Adhesive ER-101
Chemical Name: N/A
Formula: Proprietary

SECTION 2 - HAZARDOUS INGREDIENTS

Principal Hazardous Component(s) (chemical & common name(s))	%	ACGIH TLV	Other Limits Recommended
Ethylene glycol (EG; 1,2-ethanediol)	5	50 ppm	--
Polyvinyl alcohol (PVAL)	14.4	TLV not established	

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS (Fire & Explosion Data)

Boiling Point: not established
Specific Gravity (H₂O = 1): not established
Vapor Pressure (mm Hg): non-volatile
Percent Volatile by Volume (%): non-volatile
Vapor Density (Air = 1): N/A
Evaporation Rate: not established
Solubility in Water: very soluble
Reactivity in Water: none

Appearance and Odor: A viscous, odorless liquid (80% water) that is available as a clear, light blue or light pink product

Flash Point: > 160 F
Flammable Limits in Air % by Volume: Lower: unavailable, Upper: unavailable
Extinguisher Media: water, CO2, dry chemical
Auto-Ignition Temperature: not established
Special Fire Fighting Procedures: None

Unusual Fire and Explosion Hazards: None

2-3

IMPORTANT
Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

SECTION 4 - REACTIVITY DATA

ER-i01 continued

	Unstable		Conditions to Avoid
	Stable	X	
Incompatibility (Materials to Avoid) Avoid heating product, heat sources, oxidizing materials			
Hazardous Decomposition or Byproducts None recognized			
Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	X	

SECTION 5 - HEALTH HAZARDS

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	mild irritant	poorly absorbed	DO NOT INGEST
Health Hazards (Acute and Chronic) This product presents a slight health hazard if used as intended. The principal hazard is by ingestion and may be slightly toxic if swallowed. Not a skin irritant.			
Carcinogenicity: PVAL is listed as a suspect carcinogen by IRAC, NIOSH following parental implantation of PVAL sponges.			
Signs and Symptoms of Exposure Unknown			

Emergency and First Aid Procedures

1. Inhalation	Move to fresh air; artificial respiration if necessary
2. Eyes	Irrigate with water
3. Skin	Wash with soap and water
4. Ingestion	Give fluids, induce vomiting

SECTION 6 - SPECIAL PROTECTION INFORMATION

Respiratory Protection (Specify Type)	Not required			
Ventilation	Local Exhaust	Mechanical (General)	Special	Other
recommended	--	adequate	--	--
Protective Gloves	recommended but not required	Eye Protection	goggles if contact likely	
Other Protective Clothing or Equipment	None			

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage	Store in closed containers away from heat sources
Other Precautions	Avoid generation of mists or aerosols through agitation or heating

3-3

Steps to be Taken in Case Material is Released or Spilled	Flush spills with copious amounts of water. Principal ingredients (EG, PVAL) are stated to have low toxicity to aquatic life and degrade rapidly.
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Page 3 of 3

Waste Disposal Methods

Dispose in landfill in accordance with State, Federal regulations