


**Gillette Medical Evaluation Laboratories**

401 Professional Drive  
Gaithersburg, Maryland 20879  
301-590-9781

**MATERIAL SAFETY DATA SHEET**

NAME: LIQUID PAPER CORRECTION FLUID (WHITE AND COLORS, LPCF-4, LPCF-8, LPCF-9)

CAS NO: NAEffective Date: 8/22/90 Rev: 1**A. - IDENTIFICATION**

Composition* 1,1,1-Trichloroethane (71-55-6) Titanium Dioxide (13463-67-7) Resin(s) Mineral Spirits (64741-65-7) Di(2-ethylhexyl)Phthalate (117-81-7) Mustard Oil (57-06-7) Colorant(s)	%	Formula: Mixture
		Molecular Weight: NA
		Synonyms  Liquid Paper

**B. - PHYSICAL DATA**

Boiling Point <u>165</u> °F <u>74</u> °C	Melting Point <u>NA</u> °F <u>NA</u> °C	Freezing Point <u>NA</u> °F <u>NA</u> °C
Specific Gravity (H <sub>2</sub> O=1) <u>~1.7</u>	Vapor Density (air=1) <u>~4.5</u>	Vapor Pressure @ <u>68</u> °F <u>100</u> mmHg
Evaporation ( <u>Ether</u> =1) <u>Slower</u>	Saturation in Air (by volume @ <u>NA</u> °F) <u>NA</u> %	Autoignition Temperature <u>NA</u> °F <u>NA</u> °C
% Volatiles (by volume) <u>~50</u>	Solubility in Water <u>&lt;1%</u>	pH <u>NA</u>

Appearance/Odor White or colored fluid with a pungent solvent odorFlash Point and Test Method(s) >200°F, >93°C (Closed Cup) Product is non-flammable.Flammable Limits in Air (See Section H.)  
(% by volume) Lower NA % Upper NA %**C. - REACTIVITY**

Stability	Conditions to Avoid	Polymerization	Conditions to Avoid
stable <input checked="" type="checkbox"/>	Contact with open flame or other high temperature source.	may occur <input type="checkbox"/>	NA
unstable <input type="checkbox"/>		will not occur <input checked="" type="checkbox"/>	
Incompatible Materials For solvent: strong alkalis, oxidizers; aluminum, zinc and other reactive metals (e.g., potassium, sodium, magnesium).		Hazardous Decomposition Products Thermal degradation, e.g., open flame, can produce small amounts of phosgene, hydrogen chloride and chlorine.	

\*IF MULTIPLE INGREDIENTS INCLUDE CAS NUMBERS FOR EACH NA-NOT AVAILABLE

## Footnotes:

Physical data, except % Volatiles and Specific Gravity, refers to 1,1,1-Trichloroethane.

## D. - HEALTH HAZARD DATA

### Occupational Exposure Limits (PEL'S, TLV'S, etc.)

8 Hour TWA's: 1,1,1-Trichloroethane - 350 ppm (OSHA/ACGIH)  
Titanium Dioxide - 10 mg/cu m (OSHA/ACGIH)  
Di(2-ethylhexyl)Phthalate - 5 mg/cu m (OSHA/ACGIH)

These levels are not anticipated under foreseeable use conditions.

### Warning Signals

NA

### Routes/Effects of Exposure

1. Inhalation No adverse effects anticipated from normal use. If vapors are deliberately concentrated and inhaled (abuse), following symptoms may occur: respiratory irritation, dizziness, drowsiness, headache, nausea, unconsciousness, cardiac sensitization (abnormal heartbeat), coma and death. (Mustard oil is added to the product as an abuse deterrent.)
2. Ingestion  
No adverse effects anticipated from normal use. Depending on amount ingested, most of the symptoms described above may occur. Estimated LD<sub>50</sub> in rats is greater than 5 ml/kg or between 1 pint and 1 quart in humans (Ref. Gosselin, Smith and Hodge, Clinical Toxicology of Commercial Products, 5th ed., 1984).
3. Skin
  - a. Contact  
No adverse effects anticipated from normal use. Irritation may occur if contact is prolonged/repeated.
  - b. Absorption  
No adverse effects anticipated from normal use. Solvent can be absorbed through skin (prolonged contact), but not likely in acutely toxic amounts. Estimated LD<sub>50</sub> in rabbits is greater than 5 ml/kg.
4. Eye Contact  
Irritation
5. Other

See Statement Below

## E. - ENVIRONMENTAL IMPACT

### 1. Applicable Regulations

NA

### 2. DOT Hazard Class -

### 3. DOT Shipping Name -

### Environmental Effects

NA

Other: Based on animal feeding studies, Di(2-ethylhexyl)Phthalate or DEHP is listed by IARC and NTP as a possible human carcinogen, if ingested. Normal use of this product would result in no ingestion of DEHP. There is no evidence of cancer due to isolated incidents of ingestion, such as accidental ingestion. A quantitative risk assessment demonstrates that DEHP in Liquid Paper is not a significant risk to humans because of its low concentration and low exposure potential.

**F. - EXPOSURE CONTROL METHODS**

**Engineering Controls**

None under normal use conditions

**Eye Protection**

None under normal use conditions

**Skin Protection**

None under normal use conditions

**Respiratory Protection**

None under normal use conditions

**Other**

Product is non-hazardous when used as directed in an office/room with normal air circulation.

**G. WORK PRACTICES**

**Handling and Storage**

No unusual handling or storage when used as directed; when stored in large quantities (as in warehouse), it should be in a well-ventilated, cool area.

**Normal Clean Up**

Pick up spills with towels, tissues, etc.

**Waste Disposal Methods**

Dispose in accordance with applicable federal, state and local laws.

## H. EMERGENCY PROCEDURES

Steps to be taken if material is released to the environment or spilled in the work area

Not applicable

### Fire and Explosion Hazard

Concentrated vapor of 1,1,1-Trichloroethane can burn, producing hazardous decomposition products (Sec. C).

### Extinguishing Media

As for adjacent fire: dry chemical, foam, carbon dioxide, water fog

### Firefighting Procedures

In fires involving large quantities of product, use self-contained breathing apparatus.

## I. - FIRST AID AND MEDICAL EMERGENCY PROCEDURES

### Eyes

Flush with plenty of water. If irritation persists, obtain medical attention.

### Skin

Wash with soap and water.

### Inhalation

No adverse effects anticipated from normal use. In an abuse situation, remove from source of exposure. Treat symptomatically. Oxygen may be administered. Seek medical attention immediately and refer to "Notes to Physician" below.

### Ingestion

Consult physician.

### Notes to Physician

The formulation contains less than 5% petroleum distillates. Induction of vomiting should be considered at the discretion of the physician. Do not use sympathomimetic agents (e.g., epinephrine) in halogenated hydrocarbon poisoning because of possible induction of ventricular fibrillation.

The information contained in the Material Safety Data Sheet is based on data considered to be accurate, however, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof.