



## Phenolphthalein Forensic Set

Instructions for Use and  
MSDS (Material Safety Data Sheet)  
Product Code: PF-040  
Effective Date: September 18, 2012  
24 Hour Emergency Contact:  
www.pioneerforensics.com  
ChemTel: (800)255-3924

### Instructions for Use

*This test is only a presumptive test for blood. It will not discriminate between human and non-human species. Analytical testing should follow to characterize the sample as either human or non-human in origin.*

- 1.) Apply a drop of solution A to swab
  - 2.) Press swab onto unknown stain
  - 3.) Apply a drop of solution B
  - 4.) Apply a drop of solution C
  - 5.) An immediate "flash" of pink color indicates a presumptive positive for blood.
- For more information and technical support, please visit us at [www.pioneerforensics.com](http://www.pioneerforensics.com)

### MSDS (Material Safety Data Sheet)

#### COMPOSITION and INFORMATION on INGREDIENTS

##### Phenolphthalein Forensic Set Solution B

Hazardous Ingredient: Denatured Ethanol, ~80%  
CAS #: 64-17-5      Molecular Weight: 46.07

Synonyms: doubly denatured ethanol, modified 3A alcohol, alcohol anhydrous  
Chemical Formula: CH<sub>3</sub>CH<sub>2</sub>OH      PEL/TLV: 1000 ppm

Hazardous Ingredient: Sodium Hydroxide, ~1%  
CAS #: 1310-73-2      Molecular Weight: 40.00

Synonyms: caustic soda, lye  
Chemical Formula: NaOH      PEL/TLV: 2 ppm from ACGIH

Hazardous Ingredient: Methanol, ~5%  
CAS #: 67-56-1      Molecular Weight: 32.04

Synonyms: methyl alcohol, wood alcohol, carbinol  
Chemical Formula: CH<sub>3</sub>OH      PEL/TLV: 200 ppm

Hazardous Ingredient: Isopropanol, ~5%  
CAS #: 67-63-0      Molecular Weight: 60.10

Synonyms: isopropyl alcohol, IPA  
Chemical Formula: C<sub>3</sub>H<sub>8</sub>O      PEL/TLV: 200 ppm

##### Phenolphthalein Forensic Set Solution C

Hazardous Ingredient: Hydrogen Peroxide, ~3%  
CAS #: 7722-84-1      Molecular Weight: 34.01

Synonyms: hydrogen dioxide solution  
Chemical Formula: H<sub>2</sub>O<sub>2</sub>      PEL/TLV: 1 ppm from ACGIH

#### HAZARDS IDENTIFICATION

##### Emergency Overview - Phenolphthalein Forensic Set Solution B- Denatured Ethanol:

**POISON! DANGER! MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. CONTAINS METHANOL. CANNOT BE MADE NONPOISONOUS. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM AND LIVER.**  
**SAFETY RATINGS:** Health: 2, Moderate      Reactivity: 0, None      Flammability: 3, Severe      Contact: 1, Slight  
**PROTECTIVE EQUIPMENT:** Safety Glasses, Lab Coat or Apron, Gloves and General Exhaust Ventilation.  
**STORAGE CODE:** Red, Flammable

##### Potential Health Effects - Phenolphthalein Forensic Set Solution B- Denatured Ethanol:

**INHALATION:** A slight irritant to the mucous membranes. Symptoms of overexposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death.  
**INGESTION:** Toxic! Symptoms parallel inhalation. Can intoxicate and cause blindness.  
**SKIN CONTACT:** May cause irritation and defatting of skin on prolonged contact.  
**EYE CONTACT:** Irritant. Continued exposure may cause eye lesions.

#### FIRST AID MEASURES

##### Phenolphthalein Forensic Set Solution B- Denatured Ethanol:

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention immediately.  
**INGESTION:** Induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.  
**SKIN CONTACT:** Wash exposed area with soap and water. Get medical advice if irritation develops.  
**EYE CONTACT:** Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

#### FIRE FIGHTING MEASURES

**FIRE:** No information found.  
**EXPLOSION:** No information found.  
**FIRE EXTINGUISHING MEDIA:** Use any means suitable for extinguishing surrounding fire.  
**SPECIAL INFORMATION:** No information Found.  
**NFPA RATINGS:**      Health: 2      Flammability: 3      Reactivity: 0

**ACCIDENTAL RELEASE MEASURES**

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in the Personal Protection Section. Isolate hazard area. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth).

**HANDLING and STORAGE**

Store in a cool, dry, ventilated area away from flame, sources of ignition and heat. Keep containers tightly closed and upright. Protect from physical damage. Keep out of direct sunlight. Storage and use areas should be non-smoking.

**EXPOSURE CONTROL and PERSON PROTECTION**

**Phenolphthalein Forensic Set Solution B- Denatured Ethanol:**

**AIRBORNE EXPOSURE LIMITS:**

OSHA; Permissible Exposure Limit (PEL): Ethanol: 1000ppm (TWA); Methanol: 200 ppm (TWA); Isopropanol: 400ppm (TWA)

ACGIH; Threshold Limit Value (TLV): Ethanol: 1000ppm (TWA); Methanol: 200 ppm (TWA); Isopropanol: 200ppm (TWA)

**VENTILATION SYSTEM:** A system of general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits.

**SKIN PROTECTION:** Wear protective clothing, gloves, lab coat or apron, as appropriate, to prevent skin contact.

**EYE PROTECTION:** Use chemical safety glasses or goggles.

**PHYSICAL and CHEMICAL PROPERTIES**

**APPEARANCE:** Solution A & C: Clear Colorless Liquid

Solution B: Slight Pink, Clear Liquid

**ODOR:** Solution A & C: None

Solution B: Characteristic odor.

**SOLUBILITY:** Miscible with water.

**SPECIFIC GRAVITY:** No information found.

**pH:** No information found

**% VOLATILES by VOLUME:** No information found.

**BOILING POINT:** No information found.

**MELTING POINT:** No information found.

**VAPOR DENSITY (Air =1):** No information found.

**VAPOR PRESSURE (mm Hg):** No information found.

**EVAPORATION RATE (BuAc=1):** No information found.

**STABILITY and REACTIVITY**

**STABILITY:** Stable under ordinary conditions of use and storage.

**HAZARDOUS DECOMPOSITION PRODUCTS:** No information found.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**INCOMPATIBILITIES:** No information found.

**CONDITIONS to AVOID:** Heat, flames, ignition sources and incompatibles.

**ECOLOGICAL INFORMATION**

**ENVIRONMENTAL FATE:** When released into the soil, this material may leach into ground water; it is expected to readily biodegrade and quickly evaporates. When released into water, this material is expected to have a half-life between 1 - 10 days.

**ENVIRONMENTAL TOXICITY:** This material is expected to be slightly toxic to aquatic life.

**DISPOSAL INFORMATION**

Dispose of container and unused contents in accordance with federal, state and local requirements. State and local disposal regulation may differ from federal disposal regulations.

**TRANSPORT INFORMATION**

**TRANSPORT (Land, DOT)**

Alcohols, n.o.s. (denatured ethanol), 3, UN1987, PGII \*Limited Quantity 1L or less

**OTHER INFORMATION**

**Product Use:**

Laboratory and/or Field Reagent

Pioneer Forensics, LLC. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

**PIONEER FORENSICS, LLC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS, ACCORDINGLY, PIONEER FORENSICS, LLC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.**