



**E K Industries, Inc.**

1403 Herkimer Street  
Joliet, IL 60432-1059  
(815) 723-4000  
[www.eki-chem.com](http://www.eki-chem.com)

## MATERIAL SAFETY DATA SHEET

**PRODUCT** Carnoy Fixative

**PRODUCT CODES** 2870

**REVISION DATE** 5/10/2010

Page 1 of 4

### SECTION 1 PRODUCT IDENTIFICATION

**PRODUCT NAME** Carnoy Fixative

**PRODUCT CODES** 2870

**SYNONYMS** Does Not Apply.

**CAS NUMBER** Does Not Apply.

**FORMULA** Does Not Apply.

**FORMULA WEIGHT** Does Not Apply.

**REVISION DATE** 5/10/2010

**24 HOUR EMERGENCY TELEPHONE**

**CALL CHEMTREC (800) 424-9300**

Contact CHEMTREC (Chemical Transportation Emergency Center) only in the event of emergencies involving a chemical spill, leak, fire, exposure or other accident.

### SECTION 2 HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW**

DANGER. HARMFUL IF SWALLOWED OR INHALED. HARMFUL IF ABSORBED THROUGH THE SKIN. CAUSES IRRITATION. AFFECTS LIVER HEART AND KIDNEYS. SUSPECT CANCER HAZARD. CONTAINS CHLOROFORM WHICH MAY CAUSE CANCER.

**PRECAUTIONARY MEASURES**

Keep away from heat, sparks and flame. Avoid contact with skin, eyes and clothing. Avoid breathing vapor. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**ROUTES OF ENTRY AND EFFECTS OF OVEREXPOSURE**

**SKIN CONTACT** CAUSES IRRITATION.

**EYE CONTACT** CAUSES IRRITATION.

**IF INHALED** MAY BE FATAL IF INHALED.

**IF SWALLOWED** MAY CAUSE RESPIRATORY TRACT IRRITATION.

**CHRONIC** Repeated skin exposure may cause drying and cracking of skin. May affect CNS, liver, blood. May cause permanent vision loss.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE** Skin and eye disorders, liver and kidney disease.

**TARGET ORGANS** Liver, blood.



**E K Industries, Inc.**

1403 Herkimer Street  
Joliet, IL 60432-1059  
(815) 723-4000  
[www.eki-chem.com](http://www.eki-chem.com)

## MATERIAL SAFETY DATA SHEET

**PRODUCT** Carnoy Fixative

**PRODUCT CODES** 2870

**REVISION DATE** 5/10/2010

Page 2 of 4

**CARCINOGENICITY** Chloroform NTP-R Reasonably anticipated to be a human carcinogen.  
IARC-2B Possibly carcinogenic to humans.

### SECTION 3 FIRST AID PROCEDURES

**SKIN CONTACT** Immediately wash with plenty of soap and water. Get medical attention for persistent irritation.

**EYE CONTACT** Immediately flush with plenty of water for at least 15 minutes, separating eyelids occasionally. Get immediate medical attention.

**IF INHALED** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.

**IF SWALLOWED** If conscious, induce vomiting immediately as directed by medical personnel.

### SECTION 4 FIRE FIGHTING MEASURES

**FLASH POINT (C)** ~21 ( All data for 70% Ethanol)

**EXPLOSIVE LIMITS (%)** **UPPER** N/E **LOWER** N/E

**AUTOIGNITION TEMPERATURE (C)** N/E

**NFPA HAZARD IDENTIFICATION** Health: 2 Flammability: 3 Reactivity: 0 Special Hazards: -

NFPA HAZARD IDENTIFICATION is *not* intended to address occupational exposure occurring under normal conditions of use. It only addresses hazards presented by Fire, Spill or Similar Emergencies. NFPA 704 2007 ed. 1.1 and 1.3.2(1).

**EXTINGUISHING MEDIA** Water spray, dry chemical, "alcohol foam," CO<sub>2</sub>

**SPECIAL FIRE FIGHTING PRODECURES** Fire fighters should wear self-contained breathing apparatus with full facepiece operated in pressure-demand or other positive pressure mode.

**UNUSUAL FIRE AND EXPLOSION HAZARDS** Vapors may flow along surfaces to distant ignition source and flash back. Hot containers may burst.



**E K Industries, Inc.**

1403 Herkimer Street  
Joliet, IL 60432-1059  
(815) 723-4000  
[www.eki-chem.com](http://www.eki-chem.com)

## MATERIAL SAFETY DATA SHEET

**PRODUCT** Carnoy Fixative

**PRODUCT CODES** 2870

**REVISION DATE** 5/10/2010

Page 3 of 4

### SECTION 5 ACCIDENTAL RELEASE MEASURES

**IF SPILLED** Eliminate sources of ignition. Absorb spill with inert material, scoop up containerize for disposal.

**WASTE DISPOSAL METHOD** Dispose in accordance with all local, state and federal environmental regulations.

### SECTION 6 EXPOSURE CONTROL AND STORAGE

**VENTILATION** Local or general.

**RESPIRATORY PROTECTION** If necessary, APPROVED Organic Vapor respirator.

**EYE PROTECTION** Chemical splash safety goggles and/or chemical splash face shield.

**SKIN PROTECTION** Nitrile gloves, lab coat and impervious apron.

**STORAGE** Store tightly closed in an approved FLAMMABLE LIQUIDS storage area.

### SECTION 7 HAZARDOUS COMPONENTS AND EXPOSURE LIMITS

COMPONENT	CAS NUMBER	OSHA PEL	ACGIH TLV
Ethanol	64-17-5	1000 PPM TWA	1000 ppm TWA
Methanol	67-56-1	200 ppm TWA	200 ppm TWA Skin 250 ppm STEL Skin
Isopropanol	67-63-5	400 ppm TWA	200 ppm TWA 400 ppm STEL
Acetic Acid	64-19-7	10 ppm TWA	10 ppm TWA 15 ppm STEL
Chloroform	67-66-3	50 ppm CEIL	10 ppm TWA

Methanol, ~3.3%, and Chloroform, ~30%, may be subject to the reporting requirements of SARA 313 and 40CFR372



**E K Industries, Inc.**

1403 Herkimer Street  
Joliet, IL 60432-1059  
(815) 723-4000  
[www.eki-chem.com](http://www.eki-chem.com)

## MATERIAL SAFETY DATA SHEET

**PRODUCT** Carnoy Fixative

**PRODUCT CODES** 2870

**REVISION DATE** 5/10/2010

Page 4 of 4

### SECTION 8 PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE AND ODOR</b>	Clear, colorless liquid. Characteristic odor.	<b>BOILING POINT (C)</b>	N/E
<b>SOLUBILITY IN WATER</b>	Miscible	<b>EVAPORATION RATE</b>	N/E
<b>DENSITY / SPECIFIC GRAVITY</b>	N/E	<b>VAPOR PRESSURE (mm Hg)</b>	N/E
<b>MELTING POINT (C)</b>	N/E	<b>VAPOR DENSITY</b>	N/E

### SECTION 9 STABILITY AND REACTIVITY

**STABILITY** Stable

**CONDITIONS TO AVOID** Excessive heat, sources of ignition.

**MATERIALS TO AVOID** Strong oxidizers, silver salts, chlorides, alkali metals, chemically active metals, and many other substances.

**HAZARDOUS DECOMPOSITION PRODUCTS** CO, CO<sub>2</sub>, HCl, Phosgene.

**HAZARDOUS POLYMERIZATION** Will not occur.

#### DISCLAIMER:

E K Industries, Inc. makes no representation as to the comprehensiveness or accuracy of this information. Individuals using this information, or the product to which it refers, must exercise their independent judgment in determining all appropriateness for a particular purpose. Accordingly, E K Industries, Inc. will not be responsible for damages of any kind or nature resulting from the use of this information or the corresponding product. No representations or warranties of any kind or nature, including but not limited to: express warranties, implied warranties or merchantability, or warranties of fitness for a particular purpose, are made hereunder with respect to the information set forth herein or to the product to which the information refers.