



# Safety Data Sheet

## Karnovskys Fixative

### 1. Identification

**Product Name:** Karnovskys Fixative

**Item #:** 0179

**Web SDS:** S411

**Synonyms:** N/A

**Recommended Use:** N/A

**Restrictions on Use:** N/A

**Manufacturer:**

**In Case of Emergency:**

BBC Biochemical  
409 Eleanor Lane,  
Mount Vernon, WA 98273  
1-800-635-4477

Chemtec US 1-800-424-9300  
Chemtec International 703-527-3887

### 2. Hazards Identification

**OSHA Hazard Classification(s):**

- Acute Toxicity - Inhalation - Category 4
- Skin Irritation - Category 2
- Eye Irritation - Category 2A
- Sensitization - Skin - Category 1B
- Carcinogenicity - Category 2
- Toxic to Reproduction - Category 2
- Specific Target Organ Toxicity (repeated exposure) - Category 2

**Signal Word:** Warning

**Hazard Statement(s):** Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. Suspected of causing cancer. Suspected of damaging fertility of the unborn child. May cause damage to organs (liver, lungs, kidney) through prolonged or repeated exposure.

**Pictogram(s):**



**Precautionary Statement(s):** Prevention: Avoid breathing dust, vapors. Use only outdoors or in a well-ventilated area. Wash body thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection and face protection. Do not breathe dust, vapors.

Response: If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell. If on skin: Wash with plenty of water. Specific treatment (see first aid section on this label). If skin irritation or rash occurs: Get medical attention. Take off all contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing If eye irritation persists: Get medical attention. If exposed or concerned: Get medical attention.

Storage: Store locked up.

Disposal: Dispose of contents/container in accordance with local regulations.

**Descriptions of Hazards not otherwise classified:** N/A

**Percent of mixture with unknown acute toxicity:** N/A

### 3. Composition and Information on Ingredients

Chemical Name	Common Name	CAS #	Concentration %
Water		7732-18-5	Trade Secret
Select Aldehydes		Trade Secret	Trade Secret
Select Buffers		Trade Secret	Trade Secret

### 4. First Aid Measures



# Safety Data Sheet

## Karnovskys Fixative

**Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention.

**Skin Contact:** If on skin (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

**Inhalation:** Remove to fresh air; give artificial respiration if breathing has stopped. Get medical advice/attention if you feel unwell.

**Ingestion:** Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

**Symptoms:** Irritation eyes, nose, throat; headache, dizziness

**Recommendations for immediate medical care/special treatment:** Get medical advice/attention if you feel unwell.

### 5. Fire- Fighting Measures

**Extinguishing Media:** Dry chemical, carbon dioxide, alcohol foam, water.

**Fire Hazards (Chemical):** Not flammable.

**Special Protective Equipment:** Fire fighters should use self-contained breathing apparatus and protective clothing.

**Precautions for Firefighters:** Carbon monoxide and unidentified organic compounds may be formed during combustion.

### 6. Accidental Release Measures

**Emergency Procedures:** Evacuate the area of all unnecessary personnel. Wear suitable protective equipment. Eliminate all sources of ignition and provide ventilation.

**Protective Equipment:** See section 8

**Environmental Precautions:** Prevent release to the environment by using barriers.

**Containment and Clean-Up Procedures:** Use barriers to prevent spreading. Collect spill in container. Call waste authorities.

### 7. Handling and Storage

**Handling:** Do not breathe vapors. Do not eat, drink or smoke when using this product.

**Storage:** Store locked up. Store in a well-ventilated, cool place. Keep lid tightly sealed when not in use. Store away from heat, sources of ignition and open flame.

### 8. Exposure Controls/Personal Protection

**OSHA Permissible Exposure Limits (PELs):**

Reagent	CAS #	OSHA PEL TWA
N/A		

**ACGIH Threshold Limit Values (TLVs):**

Reagent	CAS #	ACGIH PEL TLV	ACGIH STEL
N/A			

**Engineering Controls:** Use in a well ventilated area to prevent exposure. Maintain eyewash fountain and quick-drench facilities in work areas.

**Personal Protective Measures:** Wear gloves, lab coat, eye protection and impervious footwear. Contact lenses should not be worn when working with this material.

**Special PPE Requirements:** If ventilation hood not available wear respirator.

### 9. Physical and Chemical Properties Section

**Appearance:** Colorless to light yellow., Liquid

**Molecular Weight:** N/A

**Molecular Formula:** N/A

**pH:** N/A

**Boiling Point and Boiling Range:** N/A



## Karnovskys Fixative

**Melting Point/Freezing Point:** N/A  
**Flash Point:** N/A  
**Specific Gravity/Relative Density:** N/A  
**Odor:** Mild, like rotten apples.  
**Odor Threshold:** N/A  
**Color:** Colorless to light yellow.  
**Flammability (solid/gas):** N/A  
**Vapor Density:** N/A  
**Upper/Lower flammability or explosive limits:** N/A  
**Vapor Pressure:** N/A  
**Evaporation Rate:** N/A  
**Partition Coefficient: n-octanol/water:** N/A  
**Viscosity:** N/A  
**Auto-ignition temperature:** N/A  
**Solubility:** N/A  
**Decomposition Temperature:** N/A

### 10. Stability and Reactivity

**Reactivity:**  
**Chemical Stability:** Stable  
**Conditions of Stability/Instability:** Stable under normal conditions of temperature and pressure.  
**Stabilizers needed:** None  
**Safety issue indicated by appearance change:** N/A  
**Other:** N/A  
**Hazardous Reactions:** N/A  
**Hazardous Polymerization:** Does not occur  
**Conditions to avoid:** N/A  
**Classes of Incompatible Materials:** Oxidizers, Strong Acids, Strong Bases  
**Hazardous Decomposition Products:** Thermal-oxidation degradation can produce oxides of carbon. Toxic gases and vapors (I.e. Carbon monoxide) may be released in a fire.

### 11. Toxicological Information

#### Likely Routes of Exposure

**Eyes:** Irritation.  
**Skin:** Irritation.  
**Inhalation:** Dizziness, headache.  
**Ingestion:** Nausea.

**Signs or Symptoms of Exposure:** Nausea.  
**Effects from short term exposure (delayed, immediate, chronic):** Irritation to the eyes, nose, throat; headache, dizziness, nausea.  
**Acute Toxicity (Numerical Measures):** N/A  
**Carcinogenicity (NTP, IARC, OSHA):** Contains suspect carcinogens.

### 12. Ecological Information

**Ecotoxicity:** N/A  
**Persistence and degradability:** N/A  
**Bioaccumulation Potential (octanol-water partition coefficient, BCF):** N/A  
**Mobility in the soil:** N/A



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**Adverse Environmental Effects:** Very toxic to aquatic life.

### 13. Disposal Considerations

**Recommended Disposal Containers:** Check with your local waste authorities.\*

**Recommended Disposal Methods:** Do not dispose of in drains, check with your local waste authorities.\*

**Physical/Chemical Properties affecting Disposal:** See section 2 and section 9 applicable information.\*

**Special Precautions for Landfill and Incineration Activities:** Check with your local waste authorities.\*

**Waste Stream:** Consult your local or regional authorities.\*

### 14. Transport Information

**UN Number:** Not regulated.

**UN Proper Shipping Name:**

**Transport Hazard Class(es):**

**Packing Group Number:**

**Environmental Hazards (IMDG code):**

**Marine Pollutant:**

**Transport in Bulk (IBC Code):**

**Special Transport Precautions:**

### 15. Regulatory Information

**OSHA:** N/A

**DOT:** N/A

**EPA:** N/A

**CPSC:** N/A



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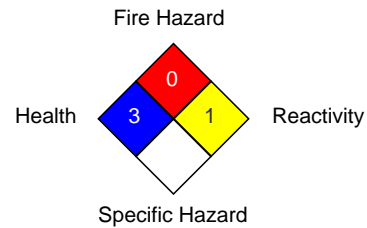
### 16. Other Information

Revision Date: 06/29/2016

#### NFPA

Health	3
Fire Hazard	0
Reactivity	1
Specific Hazard	

National Fire Protection Association (USA) NFPA



#### HMIS

Health	3
Flammability	0
Physical Hazard	1
Personal Protection	

Hazardous Material Information System HMIS

Health	3
Flammability	0
Physical Hazard	1
Personal Protection	

#### Notice to Reader:

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