



MATERIAL SAFETY DATA SHEET

(In accordance with ISO 11014-1 Standard)

Product Name: Tissue-Tek® Xpress® Pre-Processing Fixative

Revision Date: 2008-12-01

1. Identification of the Substance

Product Name: Tissue-Tek® Xpress® Pre-Processing Fixative – (Product Code #7117)

Synonym(s): N/A

General Use: Tissue-Tek® Xpress® Rapid Tissue Processor

Manufactured For: Sakura Finetek USA, Inc.
Torrance, CA 90501 USA
Tel: 310-972-7800

Emergency Telephone Number:
800-424-9300 (Chemtrec)

2. Composition/Data on Components

Hazardous Component Specific Chemical Identity	CAS #	% Weight	NIOSH (TWA)	ACGIH TLV	ACGIH STEL	OSHA PEL(TWA)
Trade secret-chemical identity withheld	Trade Secret	Trade Secret	Not established	0.1 mg/m3 as aerosol	Not established	Not established
Trade secret-chemical identity withheld	Trade Secret	Trade Secret	1000 ppm	1000 ppm	Not established	1000 ppm

3. Hazards Identification

EMERGENCY OVERVIEW

Clear liquid; colorless to very slightly pale yellow; mild, acidic/alcohol odor. Irritant to eyes and skin. Prolonged or extensive unprotected skin contact may cause allergic skin responses in sensitive individuals. Not likely to pose an inhalation threat under normal conditions of use. Ingestion is likely to cause adverse effects on gastrointestinal tract.

Potential Health Effects:

Primary route(s) of exposure: Eyes and skin.

Inhalation: Inhalation of vapors during normal conditions of use is not likely to present a health hazard because Pre-Processing Fixative exhibits almost no vapor pressure. No respiratory irritation has been reported due to inhalation.

Eye: Contact of liquid with eyes may cause irritation.

Skin: Contact of liquid with skin may cause irritation.

Ingestion: Ingestion of liquid is likely to produce adverse effects on the gastrointestinal system.

Chronic effects: No chronic effects reported. Pre-Processing Fixative is not considered to be a carcinogen or potential carcinogen by the National Toxicology Program, the International Agency for Research on Cancer, or OSHA (USA).

Signs and symptoms: Affected skin will appear dry, tough and perhaps cracked. Affected corneas may appear cloudy; eyes may water and become reddened. Effects on the gastrointestinal tract are unknown, but presumably may include nausea and/or vomiting. Effects on the respiratory system are unknown, but presumably may include coughing and difficulty in breathing. There are no pre-existing medical conditions known to be aggravated by exposure to this solution.

HMIS Rating

Health: 2
Flammability: 2
Reactivity: 0
Protection : C

HMIS Rating Scale

Minimal: 0
Slight: 1
Moderate: 2
High: 3
Severe: 4

HMIS Rating Notes:

Protection = C (Safety glasses, gloves, apron)

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4. First Aid Measures

Inhalation: Remove victim to fresh air if coughing or difficulty in breathing is experienced. Consult a physician if symptoms persist or worsen. Administer oxygen or artificial respiration as needed.

Eye Contact: Flush eyes for at least 15 minutes in an eyewash station. If symptoms persist after washing, consult a physician.

Skin Contact: Remove contaminated clothing, including footwear; wash before reuse or discard. For minor exposure, wash affected area with water and mild soap, rinsing thoroughly; apply a good quality skin lotion. In cases of prolonged, repeated or extensive exposure, rinse affected area or entire body for at least 15 minutes. For severe conditions, consult a physician.

Ingestion: Call a poison control center immediately. If victim is conscious, have him/her drink several glasses of water to dilute the solution. Induce vomiting only upon the advice of a physician or poison control authority.

Note to physician: Pre-Processing Fixative is a histological fixative. If ingested, it will fix lining cells of the gastrointestinal tract. The solution loses its efficacy as a fixative if the pH is raised to neutrality. In cases of accidental ingestion, neutralization could reduce the risk of damage to the lining; furthermore, neutralization might reduce the risk of damage to the respiratory tract if aspiration occurs during vomiting.

5. Fire Fighting Measures

Boiling Point: N/A

Auto Ignition Temp: Not determined.

Flash Point and Method: 102°F (38.9°C) (cc)

Flammable Limits (% by Volume): Not determined.

Extinguishing Media: ABC rated portable fire extinguishers should be used. Professional fire fighters may use water spray, dry chemical, or carbon dioxide.

Flammability classification: Combustible liquid (OSHA).

Flame propagation: None.

Hazardous products of combustion: Carbon monoxide and carbon dioxide.

Special Fire Fighting Procedures: Sealed chemical suits and self contained breathing apparatus are necessary for fighting fires involving substantial volumes of this product.

6. Accidental Release Measures

The size of a spill is defined in part by the local situation, especially regarding ventilation. At room temperature in a well ventilated room, a few hundred milliliters might be considered a small spill. Vapors generated during a spill are not likely to exceed OSHA's Permissible Exposure Limits. Wear protective gloves, splash-proof goggles, and impermeable aprons. Use a damp sponge or mop to remove spilled liquid. Wash contaminated area with water. Spills left to dry will become sticky. Liquid waste may be discarded down the drain with approval by wastewater authorities, or may be removed by a licensed waste hauler. Comply with all applicable governmental regulations on spill reporting and on the handling and disposal of hazardous waste.

7. Handling and Storage

Handling: Wear a plastic or rubber apron, protective gloves, and splash-proof goggles. Avoid all contact with skin and eyes. Do not continue to wear contaminated clothing after a spill.

Storage: Store at room temperature.

8. Exposure Controls/Personal Protection

PERSONAL PROTECTIVE EQUIPMENT

Eyes, Skin, and Face: Nitrile gloves are recommended. Do not use latex surgical gloves for protection against any hazardous liquid. Use splash-proof goggles. If a face shield is worn as protection against biohazards, splash-proof goggles also must be used.

Respiratory: A NIOSH-approved respirator suitable for organic vapors must be used if vapor levels exceed the exposure limits.

Other Protective Clothing or Equipment: An eyewash station and safety shower must be nearby, preferably in the same room, no more than 10 seconds away.

Ventilation: Good general room ventilation is essential. Product should be used with local ventilation (fume hood).

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9. Physical and Chemical Properties

Appearance: Clear, colorless to very slightly pale yellow liquid

Odor: Mild, acidic/alcohol odor

Specific Gravity: 1.003 @ 20°C

Vapor Pressure: Not tested. Vapor pressure of active ingredient is negligible.

Solubility in Water: Yes

Flash Point: 102°F (38.9°C), closed-cup

pH: 3.75-4.25

Boiling Point: 185°F-220°F

Freezing Point: Not tested

Melting Point: Not applicable

Pour Point: Not applicable

Density: Not tested

Viscosity: Not tested

Volatile Organic: Not tested

Flammability Class: II

10. Stability and Reactivity

Stability: Stable at standard temperature and pressure.

Conditions to Avoid: None.

Incompatible Materials: Strong oxidants.

Hazardous Decomposition Products: None.

Hazardous Polymerization: None.

11. Toxicological Information

The following toxicity data are researched from sources such as MSDS of raw materials and Dangerous Properties of Industrial Materials, Seventh Edition, 1989 publication:

Eye Effects: Severe irritant (rabbit): 20 mg with standard Draize test.

Skin Effects: Contact dermatitis and eczema have been reported in hospital workers who used strong antiseptics containing the active ingredient of Pre-Processing Fixative. Symptoms abated when use of these products were discontinued.

Oral LD50: Toxicity LD50: 760 Mg/Kg in guinea pigs and 1.1-4.3 g/Kg in rats.

Acute and subchronic inhalation effects: Inhalation of air saturated with for 8 hours was not lethal to rats. Inhalation of aerosols containing the active ingredient of Pre-Processing Fixative is harmful but not likely to be encountered in laboratory use. ACGIH has established a TLV-TWA of 0.1 mg/m³ based upon unpublished findings of squamous cell metaplasia in the larynx of rats exposed to 2 mg/m³ to 10 mg/m³ for 6 hours/day, 5 days/week for 29 days.

Carcinogenicity:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: Proposition 65: Not listed

12. Ecological Information

The following ecological information is taken from MSDS and the *Handbook of Environmental Data on Organic Chemicals*, 2nd edition, 1983:

Pre-Processing Fixative exhibits a low order of environmental toxicity and a low potential to bioaccumulate. There is no inhibition of bacteria in wastewater effluent when Pre-Processing Fixative is properly introduced into an acclimated biological treatment facility. All ingredients in Pre-Processing Fixative consist solely of carbon, hydrogen, and oxygen. Pre-Processing Fixative is readily biodegradable to carbon dioxide and water.

13. Advice on Disposal

Disposal Method: Pre-Processing Fixative itself is not an EPA-listed hazardous waste. Pre-Processing Fixative is ignitable. Drain disposal is the recommended method of disposal, based on ecotoxicity and biodegradation information, provided approval is granted by local wastewater treatment authorities. As an alternative to drain disposal, use a licensed hazardous waste hauler. This product is not recyclable. Regardless of the method chosen for disposal, be sure to follow federal, state (provincial), and local regulations. Proper waste disposal is the generator's responsibility.

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14. Transport Information

Packaging for hazardous shipments must meet the specifications as required by the current editions of International Air Transportation Association (IATA) Dangerous Goods Regulations and the United States Department of Transportation 49 CFR.

DOT (ground): Not regulated.

DOT (air) and IATA: Proper Shipping Name: Flammable liquid, n.o.s. (ethanol)

UN #: 1993

Hazard Class: 3

Group: III

15. Regulatory Information

UNITED STATES

SARA Title III (Superfund Amendments and Reauthorization Act)

SARA Title III Sect. 302 Extremely Hazardous Substances (40 CFR 355): Not listed

SARA Title III Sect. 313 Reportable Ingredients (40 CFR 372): Not listed

STATE REGULATIONS

Proposition 65: This product does not contain any substance(s) which are defined by the state of California to cause cancer, birth defects, or other reproductive effects.

OSHA (USA): Under the Hazard Communication Standard and the Laboratory Standard, this product is a hazardous material: it is an irritant and it is combustible.

EPA (USA): Pre-Processing Fixative is ignitable and is a reportable substance under SARA Title III.

16. Other Information

This Material Safety Data Sheet has been furnished on request. A revised Material Safety Data Sheet will be furnished only if requested, also in case of specification changes. The above information, which is accurate to the best of our knowledge and belief, describes the safety aspects of our product but does not warrant any product properties. The company gives no warranty as to the accuracy or completeness of such information.

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