



MATERIAL SAFETY DATA SHEET

(In accordance with ISO 11014-1 Standard)

Product Name: Tissue-Tek[®] Xpress[®] Molecular Fixative

Revision Date: 2010-03-29

1. Identification of the Substance

Product Name: Tissue-Tek[®] Xpress[®] Molecular Fixative – (Product Codes: 7120, 7122, 7123, 7125, 7130, and 7131)

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	200 ppm or 260 mg/m3	200 ppm	250 ppm	200 ppm

3. Hazards Identification

EMERGENCY OVERVIEW

DANGER: This product is extremely flammable. It is a volatile substance, and its vapors form a flammable mixture with air. Mixture of vapors or liquid of this product with air exposed to heat, static, electric spark, or open flame will explode. Harmful or fatal if inhaled.

Health Effects: Product causes irritation to the eyes, skin, nose, and throat. Inhalation may cause serious damage to the lining of the nose, throat, and lungs. It is harmful or fatal if inhaled. Excessive exposure may produce symptoms of central nervous system.

HMIS Rating

Health: 2
Flammability: 3
Reactivity: 0
Protection : H

HMIS Rating Scale

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

HMIS Rating Notes:

Protection = H (Safety glasses, gloves, apron)

4. First Aid Measures

Inhalation: Inhalation of this product will cause central nervous system depression. The symptoms of such exposure can include headaches, nausea, dizziness, drowsiness, confusion, and unconsciousness. Irritation of the nose, throat, and other tissues of the upper respiratory system may cause blindness and liver damage. Severe inhalation overexposure may be fatal. Remove to fresh air. If breathing difficulty or discomfort occurs and persists, give artificial respiration, and obtain medical attention.

Ingestion: If swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER AND MANUFACTURER OF THIS PRODUCT FOR MOST CURRENT INFORMATION. This product is toxic by ingestion. Fatal dose is 2 to 8 ounces. Ingestion of this product will cause visual disturbances, central nervous system depression, anorexia, leg cramps, vertigo, restlessness, nausea, vomiting, abdominal or back pain, apathy, and coma. Acidosis may also occur, as result of oxidation of this product to formic acid. This acidosis may severely reduce the body's alkali reserves. Do not induce vomiting if victim is unconscious or drowsy. Obtain medical attention or contact the poison center.

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Skin: Potential absorption through skin. Severe overexposure can result in blindness and liver damage. Remove contaminated clothing and thoroughly wash with soap and water. If irritation occurs and persists, contact a medical doctor.
Eye: Causes redness and pain. Flush with water for at least 15 minutes while eyelids kept open. If irritation occurs and persists, obtain medical attention.

5. Fire Fighting Measures

Flash Point and Method: 56°F, PMCC method

Flammable Limits: 6.0% LEL, 36.5% UEL These numbers are derived from the most flammable component.

Auto Ignition Temperature: > 878°F, based on estimate of the highly flammable component.

Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate foam.

Fire/Explosion Hazards: This product is a flammable liquid. Its vapor mixed with air may explode when exposed to heat, spark, static discharge, or open flame. May burn with non-luminous, bluish flame. Vapor of this product are heavier than air and may spread long distances. Distant ignition and flashback are possible.

Fire Fighting Procedures: Structural fire fighters must wear self-breathing apparatus and full protective equipment. Water spray can be used to cool the fire-exposed containers. Water fog or spray can also be used by trained fire fighters to disperse vapors and protect personnel. If this liquid is involved in a fire, fire run off water should be contained to prevent possible environmental damage. If necessary, decontaminate fire-response equipment with soap and water. Vapors of the products are heavier than air and may travel a considerable distance to a source of ignition and flash back. Vapor-air mixtures are explosive. Consider evacuation downwind.

Sensitivity to Static Discharge: This product is a flammable liquid. Its vapor mixed with air may explode when exposed to a static spark, hot sources, electric spark, and ignition source.

Hazardous Decomposition Products: When ignites in air, the product of decomposition includes carbon monoxide, carbon dioxide, and oxides of carbon.

6. Accidental Release Measures

Release Notes: Accidental spills will form combustible vapor concentration. Monitor the surrounding area for combustible vapors. Minimum personal equipment should be level B: triple-gloves, (rubber gloves and nitrile gloves, over latex gloves) chemical resistant suit and boots, hard hat, and Self Contained Breathing Apparatus. Atmosphere must have at least 19.5% oxygen before personnel can be allowed in the area without Self Contained Breathing Apparatus and other protective equipment. Eliminate all sources of ignition before cleanup operation begins. Contain spill and ventilate the area. Permit only trained personnel wearing protective equipment to contain the spill. Keep material out of streams and sewers. Absorb spilled material on absorbent. Put the contaminated absorbent into a DOT approved container and dispose of according to the methods outlined in the "Disposal Considerations" section.

7. Handling and Storage

Handling: Avoid contact with eyes, skin, and clothing. Avoid breathing product vapors and mists. Do not take internally. Wash thoroughly after handling this material. Use this material with adequate ventilation.

Storage: Keep container closed when not in use. This material should be stored in well ventilated and used in ventilated area. Keep away from heat, sparks, and open flames. Keep containers tightly closed when not in use and when in transit. Use approved containers for flammable liquid for transfer and usage (faucet, pump, drip can). Post non-smoking sign in work and storage areas.

8. Exposure Controls/Personal Protection

Engineering Controls: Use a ventilation system to maintain atmospheric concentration below published exposure limits. Explosion-proof fans should be used in a mechanical-type ventilation system.

PERSONAL PROTECTIVE EQUIPMENT

Eyes, Skin, and Face: Wear protective gloves. Use triple gloves for spill response, as stated in section 6 of this MSDS. Wear safety glasses or goggles.

Respiratory: If engineering controls do not maintain airborne concentration below recommended limits, use a NIOSH-approved respirator for organic vapors. Use under adequate ventilated area such as a hood (explosion proof).

Protective Clothing: Coveralls or apron, chemically resistant boots, and other body protection.

9. Physical and Chemical Properties

Odor: mild odor and mobile liquid

Appearance: clear, colorless liquid

Flash Point: PMCC 56°F, ASTM Method D-93

pH: 6.38

Vapor Pressure: CARB equation: 4.03 psi (219.7 mm Hg), EPA method: 4.32 psi (234.7 mm Hg), ASTM method: 4.17 psi (227.0 mm Hg)

Boiling Point: Initial boiling point at 142.9°F by ASTM D-86

Freezing Point: not tested

Melting Point: not tested

Pour Point: not tested

Solubility in water: Soluble in water

Density: 0.8319 g/cc @ 15°C

Specific Gravity: 0.8324 @ 60/60°F, ASTM –1298

Viscosity: not tested

Volatile Organic: 99.2% by weight, SCAQMD method

Flammability Class: 1B

10. Stability and Reactivity

Stability: Stable at standard temperature and pressure.

Conditions to Avoid: Keep away from heat, spark, static discharges, smoking, and open flame. Keep containers tightly closed when not in use and when in transit.

Incompatible Materials: Store away from inorganic acids, amines, halides, reducing agents, acid chlorides, alkali metals (e.g., sodium & lithium), combustible materials, oxidizers, peroxides, and metals.

Hazardous Decomposition Products: Toxic oxides of carbon such as carbon monoxide, carbon dioxide, and oxides of carbon.

Hazardous Polymerization: Will not occur.

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: Irritant (rabbit): 40 mg/24 hours; moderate

Skin Effects: Irritant (rabbit): 500 mg/24 hours; moderate

Oral LD50: Toxicity LD50 (oral, rat) = 5628 mg/kg, LC50 (inhalation, rat)=64000 ppm/4 hours

Acute Effects from Overexposure: It is irritating to the eyes, skin, nose, throat, and the mucous membranes and cause central nervous system depression. Inhalation or skin contact may cause blindness and liver damage.

Chronic Effects from Overexposure: Chronic exposure can result in skin irritation and contact dermatitis. Pre-existing disorders of the skin, eyes, and respiratory tract may be exacerbated by exposure to this product.

Carcinogenicity:

IARC: Not listed

NTP: Not listed

OSHA: Not listed

OTHER: Proposition 65: Not listed

12. Ecological Information

When released into air, this product may be moderately degraded photo-chemically. When released into water, it is expected to slowly degrade and might have potential of bio-concentration factor of less 100 days. Relatively is mobile and should be removed readily from soil and water by ventilation and biodegradation. (Data derived from MSDS of component forming this product)

13. Advice on Disposal

Disposal Method: Absorb spillage onto sand or other absorbent material and dispose of as solid waste as per local regulations. Waste or spillage generated from usage of this product is considered hazardous waste and must be disposed and manifested under local regulations of management hazardous waste.

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14. Transport Information

Proper Shipping Name: Methanol

Hazard Class/Division: 3

Identification Number: UN 1230

Packing Group: II

Placards: Flammable Liquid with class 3 rating

Label: Flammable Liquid with class 3 rating

OTHER SHIPPING INFORMATION:

Markings: Flammable liquid with class 3 rating

Hazardous Substance/RQ: 5000 Pounds

SPECIAL SHIPPING NOTES:

IMDG: Methanol, 3, UN 1230, PG II

IATA: Methanol, UN 1230, PG II (add packing instruction number from IATA book) Keep container tightly closed.

Protect against physical damage.

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 372.65): listed for methanol component only in this product

CERCLA (Comprehensive Environmental Response Compensation and Liability Act)

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.

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.

0001623-02 Rev F