



SAFETY DATA SHEET

SDS#: 0004506-02 Rev: G
Revision Date: 5/27/2016

Original Preparation Date: 12/1/08

1. Identification

Product identifier Tissue-Tek Xpress® Pre-Processing Fixative

Other means of identification

Product code 7117

Recommended use Tissue-Tek Xpress® Rapid Tissue Processor

Recommended restrictions None known

Manufacturer/Importer/Supplier/Distributor information

Manufacturer/Supplier Sakura Finetek USA Inc

Address 1750 West 214th St
Torrance, CA 90501

Telephone 1-310-972-780

Emergency phone number CHEMTREC: 1-800-424-9300

Email SDSsupport@sakuraus.com

2. Hazard(s) identification

Physical hazards Flammable liquids Category 3

Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2B
Sensitization, skin Category 1B
Germ cell mutagenicity Category 2
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation

OSHA defined hazards Not Classified

Label elements

Hazard symbol



Signal word Warning

Hazard statement Flammable liquid and vapor. Causes skin irritation. May cause an allergic skin reaction. Causes eye irritation. May cause respiratory irritation. Suspected of causing genetic defects.

Precautionary statement

Prevention	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
Storage	Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Proprietary #1	Proprietary	Proprietary
Proprietary #2	Proprietary	Proprietary

Composition comments Chemical ingredient identity and/or concentration information withheld for some or all components present is confidential business information (trade secret), and is being withheld as permitted by 29 CFR 1910.1200(i).

4. First-aid measures

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISONCENTER or doctor/physician if you feel unwell.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Rinse mouth. Get medical attention if symptoms occur. If ingestion of a large amount occurs, seek medical attention.
Ingestion Most important symptoms/effects, acute and delayed	Headache. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause respiratory irritation. Coughing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed. 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.
General Information	Take off all contaminated clothing immediately. If exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Flammable liquid and vapor.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Avoid breathing mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. A vapor-suppressing foam may be used to reduce vapors. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	

7. Handling and storage

Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. When using do not smoke. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits |
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Proprietary #1 (CAS Proprietary)	PEL	1900 mg/m ³ 1000 ppm	

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Proprietary #1 (CAS Proprietary)	STEL	1000 ppm	
Proprietary #2 (CAS Proprietary)	TWA	0.1 mg/m ³	Inhalable fraction and vapor

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Proprietary #1 (CAS Proprietary)	TWA	1900 mg/m ³ 1000 ppm	

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
Proprietary #2 (CAS Proprietary)	TWA	0.1 mg/m ³ 0.042 ppm	Inhalable fraction and vapor Inhalable fraction and vapor

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Risk of splashes: Face shield is recommended.

Skin protection

Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapor cartridge and full face piece.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Liquid
Form	Clear liquid
Color	Colorless to slightly yellow
Odor	Mild, acidic/alcohol
Odor threshold	Not available
pH	3.7-4.2
Melting point/freezing point	Not available
Initial boiling point and boiling range	185-200°F (38.9°C) Closed Cup
Flash point	102.0 °F (38.9 °C) Closed Cup
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not available
Flammability limit – upper (%)	Not available
Explosive limit - lower (%)	Not available
Explosive limit - upper (%)	Not available
Vapor pressure	Not available
Vapor density	Not available
Relative density	1.003@20°C
Solubility(ies)	
Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Other information	
Explosive properties	No explosive
Flammability class	II
Oxidizing properties	Not oxidizing

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information**Information on likely routes of exposure**

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes eye irritation.
Ingestion	May cause gastrointestinal discomfort and irritation.
Symptoms related to the physical, chemical and toxicological characteristics	Headache. Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. May cause respiratory irritation. Coughing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.
Information on toxicological effects	
Acute toxicity	May cause an allergic skin reaction. May cause respiratory irritation.
Components	Species Test Results
Proprietary #1 (CAS Proprietary)	
Acute	
Inhalation	
LC50	Rat 20000ppm, 10 hours
Oral	
LD50	Rat 6.2 g/kg
Skin corrosion/irritation	Causes skin irritation
Serious eye damage/eye irritation	Causes eye irritation
Respiratory or skin sensitization	
ACGIH Sensitization	
Proprietary #2 (CAS Proprietary)	Dermal sensitization
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Suspected of causing genetic defects.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	Not listed
NTP Report on Carcinogens	Not listed
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	Not classified
Aspiration hazard	Not an aspiration hazard
Chronic effects	Prolonged inhalation may be harmful

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species Test Results
Proprietary #1	
Aquatic	
Crustacea	EC50 Water flea (Daphnia obtuse) 10100-11200 mg/l, 48 hours
Fish	LC50 Fathead minnow (Pimephales promelas) 13480 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.

Bioaccumulative potential
Partition coefficient n-octanol / water (log Kow) -0.31

Propriety #1

Mobility in soil

No data available

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number

Not regulated as a dangerous good

Environmental hazards

Marine pollutant

No information available

IATA

UN Number

UN 1993

UN proper shipping name

Flammable liquid, n.o.s. (Ethanol)

Transport hazard class(es)

Class

3

Subsidiary risk

-

Packing group

III

Environmental hazards

No

ERG Code

2L

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

CERCLA Hazardous Substance List (40 CFR 302.4)

Proprietary #1 (CAS Proprietary) Listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance Not listed
SARA 311/312 Hazardous chemical Yes
SARA 313 (TRI reporting) Not regulated

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List Not regulated
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated
Safe Drinking Water Act (SDWA) Not regulated

US state regulations

US. Massachusetts RTK - Substance List Proprietary #1 (CAS Proprietary)
US. New Jersey Worker and Community Right-to-Know Act Proprietary #1 (CAS Proprietary)
 Proprietary #2 (CAS Proprietary)
US. Pennsylvania Worker and Community Right-to-Know Law Proprietary #1 (CAS Proprietary)
US. Rhode Island RTK Not regulated

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

16. Other information, including date of preparation or last revision

Issue date 1-DEC-2008
Revision date 27-MAY-2016
Version # G
Further information HMIS® is a registered trade and service mark of the American Coatings Association (ACA).
HMIS® ratings Health: 2*
 Flammability: 2
 Physical hazard: 0

NFPA ratings



Disclaimer

Sakura Finetek USA Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.