



# SAFETY DATA SHEET

SDS#: 0004506-02 Rev: J  
Revision Date: 10-Oct-2019

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 214<sup>th</sup> 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

|                             |  |   |
|-----------------------------|--|---|
| <b>Physical hazards</b>     | Flammable liquids  | Category 3  |
| <b>Health hazards</b>       | Skin corrosion/irritation<br>Serious eye damage/eye irritation<br>Sensitization, skin<br>Germ cell mutagenicity<br>Specific target organ toxicity, single exposure | Category 2<br>Category 2B<br>Category 1B<br>Category 2<br>Category 3 respiratory tract irritation |
| <b>OSHA defined hazards</b> | 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

|  |   |
|--|---|
| <b>Prevention</b>                                | 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. |
| <b>Response</b>                                  | 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.                       |
| <b>Storage</b>                                   | Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.  |
| <b>Disposal</b>                                  | Dispose of contents/container in accordance with local/regional/national/international regulations.   |
| <b>Hazard(s) not otherwise classified (HNOC)</b> | 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

|   |  |
|---|--|
| <b>Inhalation</b>   | 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.   |
| <b>Skin contact</b>   | 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.  |
| <b>Eye contact</b>  | 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.  |
| <b>Ingestion</b>  | Rinse mouth. Get medical attention if symptoms occur. If ingestion of a large amount occurs, seek medical attention.   |
| <b>Most important symptoms/effects, acute and delayed</b>                     | 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.   |
| <b>Indication of immediate medical attention and special treatment needed</b> | Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.<br>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. |
| <b>General Information</b>  | 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

|  |  |
|--|--|
| <b>Suitable extinguishing media</b>                                  | Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).   |
| <b>Unsuitable extinguishing media</b>                                | Do not use water jet as an extinguisher, as this will spread the fire.   |
| <b>Specific hazards arising from the chemical</b>                    | 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. |
| <b>Special protective equipment and precautions for firefighters</b> | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.  |
| <b>Fire fighting equipment/instructions</b>                          | In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.   |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.   |
| <b>General fire hazards</b>  | Flammable liquid and vapor.  |

## 6. Accidental release measures

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | 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.  |
| <b>Methods and materials for containment and cleaning up</b>               | 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.<br>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.<br>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.<br>Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. |
| <b>Environmental precautions</b>   |   |

## 7. Handling and storage

|   |  |
|---|--|
| <b>Precautions for safe handling</b>                                | 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. |
| <b>Conditions for safe storage, including any incompatibilities</b> | 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

| Components                       | Type | Value                              | Form |
|----------------------------------|------|------------------------------------|------|
| Proprietary #1 (CAS Proprietary) | PEL  | 1900 mg/m <sup>3</sup><br>1000 ppm |      |

### US. ACGIH Threshold Limit Values

#### Components

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

### US. NIOSH: Pocket Guide to Chemical Hazards

#### Components

| Components                       | Type | Value                              | Form |
|----------------------------------|------|------------------------------------|------|
| Proprietary #1 (CAS Proprietary) | TWA  | 1900 mg/m <sup>3</sup><br>1000 ppm |      |

### US. Workplace Environmental Exposure Level (WEEL)

#### Guides

#### Components

| Components                       | Type | Value                              | Form   |
|----------------------------------|------|------------------------------------|--|
| Proprietary #2 (CAS Proprietary) | TWA  | 0.1 mg/m <sup>3</sup><br>0.042 ppm | Inhalable fraction and vapor<br>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

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

## 10. Stability and reactivity

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

## 11. Toxicological information

### Information on likely routes of exposure

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

|                   |   |
|-------------------|---|
| <b>Components</b> | <b>Species</b> <span style="float: right;"><b>Test Results</b></span> |
| 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.

**IMDG**

**UN Number**

UN 1993

**UN proper shipping name**

Flammable liquid, n.o.s. (Ethyl alcohol)

**Transport hazard class(es)**

**Class**

3

**Packing group**

III

**EmS**

F-E, S-D

### 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**

10-Oct-2019

**Version #**

J

**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.