



Tissue-Tek® Reagent Alcohol 100%

Safety Data Sheet

US-SDS according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

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SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Tissue-Tek® Reagent Alcohol 100%
Product code : 5987

1.2. Recommended use and restrictions on use

For general laboratory use
To be used by qualified personals only

1.3. Supplier

Sakura Finetek USA Inc.
1750 West 214th St.
Torrance, CA 90501
T 1-310-972-7800

1.4. Emergency telephone number

CHEMTREC 1-800-424-9300
Email: SDSsupport@sakuraus.com

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Physical hazards	Highly flammable liquid and vapor
Health hazards	Harmful if swallowed Causes serious eye irritation Causes damage to organs
Environmental hazards	None

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard symbol



Signal word	Danger
Hazard statement	H302 Harmful if swallowed. H225 Highly flammable liquid and vapor H319 Causes serious eye irritation H370 Causes damage to organs

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Precautionary statement *Prevention* - P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P233 Keep container tightly closed
P240 Ground container and receiving equipment
P242 Use only non-sparking tools
P243 Take precautionary measures against static discharge
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response - P301+P312+P330 IF SWALLOWED: call a POISON CENTER/doctor if you feel unwell. Rinse mouth
P303+P361+P353 IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advise/attention
P307+P311 IF exposed: Call a POISON CENTER or doctor/physician.
P330 Rinse mouth.
P362+P364 Take off contaminated clothing and wash before reuse.
In case of Fire: Use dry sand, dry chemicals or alcohol resistant foam to extinguish.

Storage - Store in a cool, well-ventilated place.
Store in a closed container, away from open flames or other sources of ignition.

Disposal - Incineration at a licensed chemical disposal facility is the preferred disposal method. Dispose of contents and container in accord with all applicable regulations.

2.3. Other hazards which do not result in classification

None known

2.4. Unknown acute toxicity (GHS US)

None known

SECTION 3: Composition/Information on ingredients

3.1. Substances

Mixture

3.2. Mixtures

Name	CAS Number	%
Ethanol	64-17-5	90% v/v
Isopropanol	67-63-0	5% v/v
Methanol	67-56-1	5% v/v

The specific chemical component identities and/or the exact component percentages of this material may be withheld as trade secrets.

This information is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of 29 CFR 1910.1200 (I)(1). Trace ingredients (if any) are present in < 1% concentration, (< 0.1% for potential carcinogens, mutagen, and reproductive toxicant, respiratory tract and skin sensitizers in addition to oral/ inhalation acute toxicant in category 1 and 2). None of the trace ingredients contribute significant additional hazards at the concentrations that may be present in this product. All pertinent hazard information has been provided in this document, per the requirements of the Federal Occupational Safety and Health Administration Standard (29 CFR 1910.1200), U.S. State equivalents.

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SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Move the person into fresh air. If not breathing, give artificial respiration. Consult a physician.
First-aid measures after skin contact	: Wash off with soap and plenty of water. If concerned, consult a physician
First-aid measures after eye contact	: Immediately flush eyes with copious amount of water for at least 15 minutes and consult a physician.
First-aid measures after ingestion	: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects (acute and delayed)

No data available

4.3. Immediate medical attention and special treatment, if necessary

No data available

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Alcohol foam, carbon dioxide or dry chemical.
Unsuitable extinguishing media	: Water is ineffective against alcohol fires but may be used to cool adjacent containers

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire Pyrolysis will release toxic carbon monoxide

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Wear self-contained breathing apparatus and protective fire-fighting clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Wear Personal protective Equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

6.1.2. For emergency responders

Protective equipment : Wear Personal protective Equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

6.2. Environmental precautions

No data available

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Stop leak and move containers from spill area if without risk. Do not let product enter drains.
Other information	: Keep in suitable closed containers for disposal.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Wear lab coat, chemical safety goggles, and gloves. Avoid contact with eyes, skin or clothing.
Hygiene measures	: Wash thoroughly after handling.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a cool, well ventilated place. Store in a closed container, away from open flames or other sources of ignition

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

US. ACGIH Threshold Limit Values			
Components	Type	Value	Form
Ethanol	TWA	1000 ppm	Liquid
	STEL	1000 ppm	
Methanol	TWA	200 ppm	
	STEL	250 ppm	
Isopropanol	TWA	200 ppm	
	STEL	400 ppm	

ACGIH Biological Exposure Indices		
Components	Value	Specimen
Methanol	15 mg/L	Urine, End of shift
Isopropanol	40mg/L	Urine, end of shift

8.2. Appropriate engineering controls

Appropriate engineering controls : Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use of product.

General hygiene considerations : Wash hands before and after use of product.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Chemical resistant, impervious gloves should be worn at all times when handling this product.
Eye protection:
Chemical safety goggles/glasses.
Skin and body protection:
Appropriate personal protective equipment for the body, foot and any additional skin protection measures should be selected based on the tasks being performed and risks involved.
Respiratory protection:
Use air purifying full-face particle respirator based on the tasks being performed and risks involved.

Personal protective equipment symbol(s):



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Reagent Alcohol

Physical state	: Liquid
Color	: Colorless
Odor	: Characteristic alcohol
Odor threshold	: No data available.
pH	: No data available.
Melting point	: No data available.
Freezing point	: No data available.
Boiling point	: 172F
Flash point	: No data available.
Relative evaporation rate (butyl acetate=1)	: 1
Flammability	: No data available.
Vapor pressure	: 40 @ 19C
Relative vapor density at 20°C	: No data available.
Relative density	: 0.787 g/ml
Solubility	: Infinitely miscible with water
Partition coefficient n-octanol/water (Log Pow)	: No data available.
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available.
Viscosity, kinematic	: No data available.
Viscosity, dynamic	: No data available.
Explosion limits	: No data available.
Explosive properties	: No data available.
Oxidizing properties	: No data available.

9.2. Other information

No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

Freezes at low temperature.

10.3. Possibility of hazardous reactions

Vapors may form explosive mixture with air.

10.4. Conditions to avoid

Heat, flame and sources of ignition.

10.5. Incompatible materials

Oxidizers

10.6. Hazardous decomposition products

Carbon dioxide, carbon monoxide

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Oral LD50 Category 4. ATE = 300 - 2000 mg
Acute toxicity (dermal) : Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg. Category 4. ATE = 1000 - 2000 mg/kg
Acute toxicity (inhalation) : Vapor LC50 Category 4. ATE = 10

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	LD50 = 10470 mg/kg OECD 401 (Rat) 3450 mg/kg (Mouse)	Not listed	LC50 = 117-125 mg/l (4h) OECD 403 (rat) 20000 ppm/10H (rat)
Methyl alcohol	LD50=1187–2769mg/kg(Rat)	LD50 = 17100 mg/kg (Rabbit	LC50 = 128.2 mg/L (Rat) 4 h
Isopropyl alcohol	5045 mg/kg (Rat) 3600 mg/kg (Mouse)	12800 mg/kg (Rat)	72.6 mg/L (Rat) 4 h

Skin corrosion/irritation : May cause skin, eye, and respiratory tract irritation

Serious eye damage/irritation : May cause skin, eye, and respiratory tract irritation

Respiratory or skin irritation : May cause skin, eye, and respiratory tract irritation

Germ cell mutagenicity : No information available

Carcinogenicity	Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
	Ethyl alcohol	64-17-5	Not listed	Known	A3	Not listed	A3
	Methyl alcohol	67-56-1	Not listed				
	Isopropyl alcohol	67-63-0	Not listed				

Known - Known Carcinogen

A3 - Animal Carcinogen (ACGIH)

A3 - Confirmed Animal Carcinogen (Mexico)

Reproductive toxicity : California Proposition 65. Reproductive toxicity

STOT-single exposure : Optic nerve Central nervous system (CNS)

STOT-repeated exposure : None known

Aspiration hazard : No information available

Symptoms related to the physical, chemical and toxicological characteristics information on toxicological effects : Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

SECTION 12: Ecological information

12.1. Toxicity - 100% Reagent Alcohol

Ecology - general : No data available.

12.2. Persistence and degradability

Biodegradable

12.3. Bioaccumulative potential

Ethanol evaporates quickly and is not expected to bioaccumulate. The material is removed from the air by dry and liquid adsorption. The half-life for ethanol in the atmosphere is one to ten days.

12.4. Mobility in soil

No data available.

12.5. Other adverse effects

No data available.

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SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Incineration at a licensed chemical disposal facility is the preferred disposal method. Dispose of contents and container in accord with all applicable regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

UN1170

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Ethanol solutions
Proper Shipping Name (IMDG) : Ethanol solutions
Proper Shipping Name (IATA) : Ethanol solutions

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 3

IMDG

Transport hazard class(es) (IMDG) : 3

IATA

Transport hazard class(es) (IATA) : 3

14.4. Packing group

Packing group (DOT) : II
Packing group (IMDG) : II
Packing group (IATA) : II

14.5. Environmental hazards

Other information : None

14.6. Special precautions for user

DOT

None

IMDG

None

IATA

None

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

None

SECTION 15: Regulatory information

15.1. US Federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	No information available
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	No information available

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CERCLA Hazardous Substance List (40 CFR 302.4)	No information available
Superfund Amendments and Reauthorization Act of 1986 (SARA)	No information available
SARA 302 Extremely hazardous substance	Not subject to reporting requirement
SARA 311/312 Hazardous chemical	Fire hazard, acute health hazard, chronic health hazard
SARA 313 (TRI reporting)	Methanol, isopropanol

15.2. US State regulations

US. Massachusetts RTK - Substance List

Ethanol, Methanol, Isopropanol

US. New Jersey Worker and Community Right-to-Know Act

Ethanol, Methanol, Isopropanol

US. Pennsylvania Worker and Community Right-to-Know Law

Ethanol, Methanol, Isopropanol

US. California Proposition 65

WARNING: This product can expose you to chemicals including Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

SECTION 16: Other information

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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.